COGNEX CORP
Form 10-K
February 17, 2009

Table of Contents

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

FORM 10-K

(Mark One)
[X] Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended December 31, 2008 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

COGNEX CORPORATION

(Exact name of registrant as specified in its charter)

Massachusetts	**04-2713778**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

One Vision Drive
Natick, Massachusetts 01760-2059
(508) 650-3000
(Address, including zip code, and telephone number, including area code, of principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Exchange on Which Registered
Common Stock, par value $.002 per share	The NASDAQ Stock Market LLC
Preferred Stock Purchase Rights	The NASDAQ Stock Market LLC

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.
Yes ______ No __X__

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.
Yes ______ No __X__

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 __X__ 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. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

x Large accelerated filer o Accelerated filer o Non-accelerated filer o Smaller reporting company

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ______ No __X__

Aggregate market value of voting stock held by non-affiliates of the registrant
as of June 29, 2008: $883,204,000
$.002 par value common stock outstanding as of February 1, 2009: 39,655,421 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, 2008. Portions of such Proxy Statement are incorporated by reference in Part III of this report.

COGNEX CORPORATION ANNUAL REPORT ON
FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2008

INDEX

PART I

This Annual Report on Form 10-K contains forward-looking statements within the meaning of the Federal Securities Laws. Readers can identify these forward-looking statements by our use of the words expects, anticipates, estimates, believes, projects, intends, plans, will, may, shall, and similar words and other statements of a similar sens future results may differ materially from current results and from those projected in the forward-looking statements as a result of known and unknown risks and uncertainties. Readers should pay particular attention to considerations described in the section captioned Risk Factors, appearing in Part I Item IA of this Annual Report on Form 10-K. We caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. We disclaim any obligation to subsequently revise forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date such statements are made.

Unless the context otherwise requires, the words Cognex, the Company, we, our, us, and our company refer t Corporation and its consolidated subsidiaries.

ITEM 1. BUSINESS

Corporate Profile

Cognex Corporation (Cognex or the Company, each of which 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.

Cognex is a leading worldwide provider of machine vision products that capture and analyze visual information in order to automate tasks, primarily in manufacturing processes, where vision is required. Machine vision is important for applications in which human vision is inadequate to meet requirements for 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 size of items being manufactured.

Cognex 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 develops, manufactures, and markets modular vision systems that are used to automate the manufacture of discrete items, such as cellular phones, aspirin bottles, and automobile wheels, by locating, identifying, inspecting, and measuring them during the manufacturing process. SISD develops, manufactures, and markets surface inspection vision systems that are used to inspect the surfaces of materials processed in a continuous fashion, such as metals, paper, non-wovens, plastics, and glass, 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 approximately 85% of total revenue in 2008. Financial information about segments may be found in Note 18 to the Consolidated Financial Statements, appearing in Part II Item 8 of this Annual Report on Form 10-K.

What is Machine Vision?

Since the beginning of the Industrial Revolution, human vision has played an indispensable role in the process of manufacturing products. Human eyes did what no machines could do themselves: locating and positioning work, tracking the flow of parts, and inspecting output for quality and consistency. Today, however, the requirements of many manufacturing processes have surpassed the limits of human eyesight. Manufactured items often are produced too quickly or with tolerances too small to be analyzed by the human eye. In response to manufacturers needs, machine vision technology emerged, providing manufacturing equipment with the gift of sight. Machine vision systems were first widely embraced by manufacturers of electronic components who needed this technology to produce computer chips with decreasing geometries. However, advances in technology and ease-of-use, combined with the decreasing cost of implementing vision applications, have made machine vision available to a broader range of users.

Table of Contents

Machine vision products combine cameras with intelligent software to collect images and then answer questions about these images, such as:

Question	Description	Example
GUIDANCE		
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 place electronic components.
IDENTIFICATION		
What is it?	Identifying an object by analyzing its shape or by reading a serial number or symbol.	Reading a two-dimensional barcode directly marked on an automotive airbag so that it can be tracked and processed correctly through manufacturing.
INSPECTION		
How good is it?	Inspecting an object for flaws or defects.	Inspecting the paper that US currency is printed on.
GAUGING		
What size is it?	Determining the dimensions of an object.	Determining the diameter of a bearing prior to final assembly.

Machine Vision Market

Cognex machine vision is primarily used in the manufacturing sector, where the technology is widely recognized as an important component of automated production and quality assurance. In this sector, Cognex serves three primary markets: discrete factory automation, semiconductor and electronics capital equipment, and surface inspection.

Discrete factory automation customers purchase Cognex vision products and incorporate them into their manufacturing processes. Virtually every manufacturer can achieve better quality and manufacturing efficiency by using machine vision, and therefore, this market includes a broad base of customers across a variety of industries, including automotive, consumer electronics, food and beverage, health and beauty, medical devices, packaging, and pharmaceutical. Sales to discrete factory automation customers represented approximately 68% of total revenue in 2008, compared to 62% of total revenue in 2007.

Semiconductor and electronics capital equipment manufacturers purchase Cognex vision products and integrate them into the automation equipment that they manufacture and then sell to their customers to either make semiconductor chips or assemble printed circuit boards. Demand from these capital equipment manufacturers has historically been highly cyclical, with periods of investment followed by downturn. This market has been in a prolonged downturn since early 2006. In recent years, the competitive landscape in this market has also changed, with price and the flexibility of purchasing hardware from other vendors becoming more important factors in the purchasing decisions of these manufacturers. In response to this market change, Cognex has introduced software-only products. Although these products have high gross margins, the average selling price of these offerings is significantly lower than for a complete vision system, and therefore, we expect this trend to have a negative impact on our revenue in this market. Sales to semiconductor and electronics capital equipment manufacturers represented approximately 17% of total revenue in 2008, compared to 25% of total revenue in 2007.

Surface inspection customers are manufacturers of materials processed in a continuous fashion, such as metals, paper, non-wovens, plastics, and glass. These customers need sophisticated machine vision to detect and classify defects on the surfaces of those materials as they are being processed at high speeds. Surface inspection sales represented approximately 15% of total revenue in 2008, compared to 13% of total revenue in 2007.

No customer accounted for greater than 10% of total revenue in 2008, 2007, or 2006.

Table of Contents

Business Strategy

Our goal is to expand our position as a leading worldwide provider of machine vision products. Sales to customers in the discrete factory automation market represent the largest percentage of our total revenue, and we believe that this market provides the greatest potential for long-term, sustained revenue growth.

In order to grow the discrete factory automation market, we have invested in developing new products and functionality that make vision easier to use and more affordable, and therefore, available to a broader base of customers. This investment includes selective expansion into new industrial and commercial vision applications through internal development, as well as the acquisition of businesses and technologies. We have also invested in building a worldwide sales and support infrastructure in order to access more of the potential market for machine vision. This investment includes opening sales offices in regions, such as China and Eastern Europe, where we believe many manufacturers can benefit from incorporating machine vision into their production processes, and developing strategic alliances with other leading providers of factory automation products.

Acquisitions and Divestitures

Our business strategy includes selective expansion into new machine vision applications through the acquisition of businesses and technologies. We plan to continue to seek opportunities to expand our product line, customer base, distribution network, and technical talent through acquisitions in the machine vision industry.

In May 2005, we completed our largest acquisition when Cognex purchased DVT Corporation for approximately $112 million. This business is included in the Company s MVSD segment. Over the past several years, we have expanded our product line by adding low-cost, easy-to-use vision sensors. However, reaching the many prospects for these products in factories around the world requires a large third-party distribution channel to supplement our direct sales force. With the acquisition of DVT Corporation, we immediately gained a worldwide network of distributors, fully trained in selling and supporting machine vision products. We believe that we can accelerate our growth in the factory automation market by selling our expanding line of low-cost, easy-to-use products through this worldwide distribution network.

In July 2008, Cognex sold all of the assets of its lane departure warning business for approximately $3 million. We entered this business in May 2006 with the acquisition of AssistWare Technology, Inc., a small company that had developed a vision system that could provide a warning to drivers when their vehicle was about to inadvertently cross a lane. For two years after the acquisition date, we invested additional funds to commercialize AssistWare s product and to establish a business developing and selling lane departure warning products for driver assistance. This business was included in the MVSD segment, but was never integrated with the other Cognex businesses. During the second quarter of 2008, we determined that this business did not fit the Cognex business model, primarily because car and truck manufacturers want to work exclusively with existing Tier One suppliers and, although these suppliers had expressed interest in Cognex s vision technology, they would require access to, and control of, our proprietary software. Accordingly, we accepted an offer from one of these suppliers and sold the lane departure warning business. Additional information about acquisitions and divestitures may be found in Note 19 to the Consolidated Financial Statements, appearing in Part II Item 8 of this Annual Report on Form 10-K.

Products

Cognex offers a full range of machine vision products designed to meet customer needs at different performance and price points. Our products range from low-cost vision sensors that are easily integrated, to PC-based systems for users with more experience or more complex requirements. Our products also have a variety of physical forms, depending upon the user s need. For example, customers can purchase vision software to use with their own camera and processor, or they can purchase a standalone unit that combines camera, processor, and software into a single package.

Table of Contents

Vision Software

Vision software provides the user the most flexibility for combining the full general-purpose library of Cognex vision tools with the cameras, frame grabbers, and peripheral equipment of their choice. The vision software runs on the customer s PC, which enables easy integration with PC-based data and controls. Applications based upon Cognex vision software perform a wide range of vision tasks, including part location, identification, measurement, assembly verification, and robotic guidance. Cognex s VisionPro™ software offers the power and flexibility of advanced programming with the simplicity of a graphical development environment. VisionPro s extensive suite of patented vision tools enables solving challenging machine vision applications.

Vision Systems

Vision systems combine camera, processor, and vision software into a single, rugged package with a simple and flexible user interface for configuring applications. These general-purpose vision systems are designed to be easily programmed to perform a wide range of vision tasks including part location, identification, measurement, assembly verification, and robotic guidance. Cognex offers the In-Sight® and DVT® product lines of vision systems in a wide range of models to meet various price and performance requirements.

Vision Sensors

Unlike general-purpose vision systems that can be programmed to perform a wide variety of vision tasks, vision sensors are designed to deliver very simple, low-cost solutions in place of traditional photoelectric sensors for reliable inspection, error proofing, and part detection. Cognex offers the Checker® product line of vision sensors that perform a variety of single-purpose vision tasks.

ID Products

ID products quickly and reliably read codes (e.g. one-dimensional or two-dimensional barcodes) that have been applied or directly marked on discrete items during the manufacturing process. Manufacturers of goods ranging from automotive parts, pharmaceutical items, aircraft components, and medical devices are increasingly using direct part mark (DPM) identification to ensure that the appropriate manufacturing processes are performed in the correct sequence and on the right parts. In addition, DPM is used to track parts from the beginning of their life to the end, and is also used in supply chain management and repair. Cognex is also pursuing applications for ID outside of the manufacturing sector, such as integrating ID products into document processing equipment. Cognex offers the Dataman® product line of ID readers that includes both hand-held and fixed-mount models.

Surface Inspection Systems

Surface inspection systems detect and classify surface defects during the fabrication of metals, paper, non-wovens, plastics, and glass. Cognex s SmartView® web and surface inspection system is a complete solution for the inspection of surfaces and webs moving in a continuous fashion as they are being produced or converted. SmartView enables the user to detect, identify, visualize, and classify defects in these materials as they are being produced at full production speeds.

Research, Development, and Engineering

Cognex engages in research, development, and engineering (RD&E) to enhance our existing products and to develop new products and functionality to meet market opportunities. In addition to internal research and development efforts, we intend to continue our strategy of gaining access to new technology through strategic relationships and acquisitions where appropriate.

Table of Contents

At December 31, 2008, Cognex employed 184 professionals in RD&E, many of whom are software developers. Cognex s RD&E expenses totaled $36,262,000 in 2008, $33,384,000 in 2007, and $32,332,000 in 2006, or approximately 15%, 15%, and 14% of revenue, respectively.

We believe that a continued commitment to RD&E activities is essential in order to maintain or achieve product leadership with our existing products and to provide innovative new product offerings, and therefore, we expect to continue to make significant RD&E investments in the future. In addition, we consider our ability to accelerate time to market for new products critical to our revenue growth. Although we target our RD&E spending to be between 10% and 15% of total revenue, this percentage is impacted by revenue levels.

At any point in time, we have numerous research and development projects underway. Among these projects is the development of a vision system (i.e. imager, analog to digital converter, vision processing, and camera peripherals) on a semiconductor chip. The development of this Vision System on a Chip is in the early stages and we expect the commercialization of this product to take at least several years.

Manufacturing and Order Fulfillment

Cognex s MVSD products are manufactured utilizing a turnkey operation whereby the majority of component procurement, assembly, and initial testing are performed under agreement by third-party contract manufacturers. Cognex s primary contract manufacturers are located in Ireland and Southeast Asia. The contract manufacturers use specified components and assembly and test documentation created and controlled by Cognex. Certain components are presently available only from a single source. After the completion of initial testing, a fully-assembled product from the contract manufacturer is routed to one of the Company s two distribution locations: Cork, Ireland or Duluth, Georgia, USA. At these locations, Cognex s software is loaded onto the product, final quality control is performed, and the product is kitted for shipment to our customers. Orders for customers in the Americas are shipped from our Duluth, Georgia facility, while orders for customers in Japan, Europe, and Southeast Asia are shipped from our Cork, Ireland facility. In November 2008, Cognex announced that it will be closing its Duluth, Georgia facility in mid-2009 and this distribution center will be consolidated into the Company s headquarters in Natick, Massachusetts.

Cognex s SISD products are manufactured at its Alameda, California facility, with the exception of the frames on which the cameras and the lights used to illuminate the web 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 sub-assembly at the Alameda facility, some of the systems are delivered to Cognex s Kuopio, Finland facility where the frames and lights are manufactured. The manufacturing process at the Kuopio facility consists of system integration, final testing, and quality control.

Sales Channels and Support Services

Cognex sells its MVSD products through a worldwide direct sales force that focuses on the development of strategic accounts that generate or are expected to generate significant sales volume, as well as through a global network of integration and distribution partners. Our integration partners are experts in vision and complementary technologies that can provide turnkey solutions for complex projects and our distribution partners provide local support in order to best reach the many prospects for our products in factories around the world. Cognex s SISD products are primarily sold through a worldwide direct sales force since there are fewer customers in a more concentrated group of industries.

At December 31, 2008, Cognex s sales force consisted of 289 professionals, and our partner network consisted of approximately 146 active integrators and 179 authorized distributors. Sales engineers call directly on targeted accounts and manage the activities of our partners within their territories in order to implement the most advantageous sales model for our products. The majority of our sales force holds engineering or science degrees. Cognex has sales and support offices located throughout the Americas, Japan, Europe, and Southeast Asia. Recently, the Company opened sales offices in China (which the

Table of Contents

Company currently includes in its Southeast Asia region) and Eastern Europe, where we believe many manufacturers can benefit from incorporating machine vision into their production processes.

In August 2008, Cognex announced a partnership with Mitsubishi Electric Corporation, a leading worldwide provider of factory automation products (i.e. programmable controllers, motion controls, and industrial robots) based in Japan. Cognex and Mitsubishi will jointly develop and market Cognex vision products to Mitsubishi s factory automation customers. This collaboration will improve connectivity with Mitsubishi factory automation products and will enable customers to deploy systems more quickly. Cognex expects this partnership to increase its market presence on the factory floor, first in Japan and eventually in the fast-growing markets throughout Asia.

Sales to customers based outside of the United States represented approximately 70% of total revenue in 2008, compared to approximately 65% of total revenue in 2007. In 2008, approximately 36% of the Company s total revenue came from customers based in Europe, 22% from customers based in Japan, and 12% from customers based in Southeast Asia. Sales to customers based in Europe are predominantly denominated in Euro, sales to customers based in Japan are predominantly denominated in Yen, and sales to customers based in Southeast Asia are predominantly denominated in U.S. Dollars. Financial information about geographic areas may be found in Note 18 to the Consolidated Financial Statements, appearing in Part II Item 8 of this Annual Report on Form 10-K.

Cognex s MVSD service offerings include maintenance and support, training, and consulting services. Maintenance and support programs include hardware support programs that entitle customers to have failed product repaired, as well as software support programs that provide customers with application support and software updates on the latest software releases. Training services include a variety of product courses that are available at Cognex s offices worldwide, at customer facilities, and on computer-based tutorials, video, and the internet. Cognex provides consulting services that range from a specific area of functionality to a completely integrated machine vision application.

Cognex s SISD service offerings include maintenance and support and training services similar to those provided by MVSD, as well as installation services. 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.

Intellectual Property

We rely on the technical expertise, creativity, and knowledge of our personnel, and therefore, we utilize patent, trademark, copyright, and trade secret protection to maintain our competitive position and protect our proprietary rights in our products and technology. While our intellectual property rights are important to our success, we believe that our business as a whole is not materially dependent on any particular patent, trademark, copyright, or other intellectual property right.

At December 31, 2008, Cognex had been granted, or owned by assignment, 273 patents issued and had another 172 patent applications pending. Cognex has used, registered, or applied to register a number of trademark registrations in the United States and in other countries. Cognex s trademark and servicemark portfolio includes various registered marks, including, among others, Cognex®, In-Sight®, Checker®, DataMan®, and SmartView®, as well as many common-law marks, including, among others, VisionPro™.

Compliance with Environmental Provisions

Cognex s capital expenditures, earnings, and competitive position are not materially affected by compliance with federal, state, and local environmental provisions which have been enacted or adopted to regulate the distribution of materials into the environment.

Table of Contents

Competition

The machine vision market is highly fragmented and Cognex s competitors vary depending upon market segment, geographic region, and application niche. Our competitors are typically other vendors of machine vision systems and manufacturers of image processing systems and sensors. In addition, in the semiconductor and electronics capital equipment market, Cognex competes with the internal engineering departments of current or prospective customers. In the direct part mark identification market, Cognex competes with manufacturers of automatic identification systems. Any of these competitors may have greater financial and other resources than Cognex. Although we consider Cognex 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.

Cognex s ability to compete depends upon our ability to design, manufacture, and sell high-quality products, as well as our ability to develop new products and functionality that meet evolving customer requirements. The primary competitive factors affecting the choice of a machine vision system include vendor reputation, product functionality and performance, ease of use, price, and post-sales support. In addition, in the semiconductor and electronics capital equipment market, the flexibility of purchasing hardware from other vendors has become an important factor in recent years. The importance of each of these factors varies depending upon the specific customer s needs.

Backlog

At December 31, 2008, backlog totaled $30,423,000, compared to $36,655,000 at December 31, 2007. Backlog reflects customer purchase orders for products scheduled for shipment primarily within 60 days at MVSD and six months at SISD. The MVSD backlog excludes deferred revenue. Although MVSD accepts orders from customers with requested shipment dates that are within 60 days, orders typically ship within one week of order placement. The level of backlog at any particular date is not necessarily indicative of future revenue. Delivery schedules may be extended and orders may be canceled at any time subject to certain cancellation penalties.

Employees

At December 31, 2008, Cognex employed 832 persons, including 417 in sales, marketing, and service activities; 184 in research, development, and engineering; 107 in manufacturing and quality assurance; and 124 in information technology, finance, and administration. Of the Company s 832 employees, 387 are based outside of the United States. None of our employees are represented by a labor union and we have experienced no work stoppages. We believe that our employee relations are good.

Available Information

Cognex maintains a website on the World Wide Web at www.cognex.com. We make available, free of charge, on our website in the Company Information section under the caption Investor Information Annual Reports & SEC FiIings our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, and Current Reports on Form 8-K, including exhibits, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the SEC. Cognex s reports filed with, or furnished to, the SEC are also available at the SEC s website at www.sec.gov. Information contained on our website is not a part of, or incorporated by reference into, this Annual Report on Form 10-K.

ITEM 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones that we face. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect our company in the future. If any of these risks were to occur, our business, financial condition, or results of operations could be materially and adversely affected. This section includes or

Table of Contents

refers to certain forward-looking statements. We refer you to the explanation of the qualifications and limitations on such forward-looking statements, appearing in Part II Item 7 of this Annual Report on Form 10-K.

Current and future conditions in the global economy may negatively impact our operating results.

Our revenue is dependent upon the capital spending trends of manufacturers in a number of industries, including, among others, the semiconductor, electronics, automotive, metals, and paper industries. These spending levels are, in turn, impacted by global economic conditions, as well as industry-specific economic conditions.

In recent months, the credit market crisis and slowing global economies have resulted in lower demand for our products as many of our customers experience deterioration in their businesses, cash flow issues, difficulty obtaining financing, and declining business confidence. Lower demand may continue indefinitely as existing and potential customers delay, reduce, or cancel capital spending.

As a result, our business is subject to the following risks, among others:

- our customers may not have sufficient cash flow or access to financing to purchase our products,
- our customers may not pay us within agreed upon credit terms or may default on their payments altogether,
- our vendors may be unable to fulfill their delivery obligations to us as their business deteriorates,
- lower forecasted demand for our products may result in charges for excess and obsolete inventory if we are unable to sell inventory that is either already on hand or committed to purchase,
- lower forecasted cash flows may result in impairment charges for acquired intangible assets or goodwill,
- a decline in the fair value of our limited partnership interest in a venture capital fund, which is invested primarily in young and emerging companies, may result in an impairment charge,
- a decline in our stock price may make stock options a less attractive form of compensation and a less effective form of retention for our employees, and
- the trading price of our common stock may be volatile.

At December 31, 2008, we had approximately $212 million in either cash or investments that could be converted into cash. In addition, we have no long-term debt. We believe that our strong financial condition and historically high gross margins put us in a relatively good position to weather a prolonged economic downturn. Nevertheless, our operating results have been materially adversely affected in the past, and could be materially adversely affected in the future, as a result of unfavorable economic conditions and reduced capital spending by manufacturers worldwide.

Downturns in the semiconductor and electronics capital equipment market may adversely affect our business.

In 2008, approximately 17% of our revenue was derived from semiconductor and electronics capital equipment manufacturers. This concentration was as high as 61% in 2000 during its revenue peak. 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 our products. While we have been successful in diversifying our business beyond OEM customers who serve the semiconductor and electronics industries, our business is still impacted by capital expenditures in these industries, which, in turn, are dependent upon the market demand for products containing computer chips. As a result, our operating results in the foreseeable future could be significantly and adversely affected by further declining sales in either of these industries. Furthermore, the competitive landscape in this market has changed in recent years, with price and the flexibility of purchasing hardware from other vendors becoming more important factors in the purchasing decisions of these manufacturers. In response to this market change, we have introduced software-only products. Although these products have high gross margins, the average selling price of these offerings is significantly lower than for a

8

Table of Contents

complete vision system, and therefore, we expect this trend to have a negative impact on our revenue in this market.

Economic, political, and other risks associated with international sales and operations could adversely affect our business and operating results.

In 2008, approximately 70% of our revenue was derived from customers located outside of the United States. We anticipate that international sales will continue to account for a significant portion of our revenue. In addition, certain of our products are assembled by third-party contract manufacturers in Ireland and Southeast Asia. We intend to continue to expand our sales and operations outside of the United States and may enter additional international markets, such as our recent expansion into China and Eastern Europe, which will require significant management attention and financial resources. As a result, our business is subject to the risks inherent in international sales and operations, including, among other things:

- various regulatory requirements,
- export and import restrictions,
- transportation delays,
- employment regulations and local labor conditions,
- difficulties in staffing and managing foreign sales operations,
- instability in economic or political conditions,
- difficulties protecting intellectual property,
- business systems connectivity issues, and
- potentially adverse tax consequences.

Any of these factors could have a material adverse effect on our operating results.

Fluctuations in foreign currency exchange rates and the use of derivative instruments to hedge these exposures could adversely affect our reported results, liquidity, and competitive position.

We face exposure to foreign currency exchange rates fluctuations, as a significant portion of our revenues, expenses, assets, and liabilities are denominated in currencies other than the functional currencies of our subsidiaries or the reporting currency of our company, which is the U.S. Dollar. In certain instances, we utilize forward contracts and other derivative instruments to hedge against foreign currency fluctuations. These contracts are used to minimize foreign currency gains or losses, as the gains or losses on the derivative are intended to offset the losses or gains on the underlying exposure. We do not engage in foreign currency speculation.

The success of our foreign currency risk management program 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, we could experience unanticipated foreign currency gains or losses that could have a material impact on our results of operations. Furthermore, our failure to identify new exposures and hedge them in an effective manner may result in material foreign currency gains or losses. In addition, although the use of these derivative instruments may be effective in minimizing foreign currency gains or losses, significant cash inflows or outflows may result when these instruments are settled.

The only foreign currencies in which a significant portion of our revenues and expenses are denominated are the Euro and the Japanese Yen. Our predominant currency of sale is the U.S. Dollar in the Americas and Southeast Asia, the Euro in Europe, and the Yen in Japan. We estimate that approximately 58% of our sales in 2008 were invoiced in currencies other than the U.S. Dollar, and we expect sales denominated in foreign currencies to continue to represent a significant portion of our total revenue. While we also have expenses denominated in these same foreign currencies, the impact on revenues has historically been, and is expected to continue to be, greater than the offsetting impact on expenses. Therefore, in times when the U.S. Dollar strengthens in relation to these foreign currencies, we would expect to report a net decrease in operating income. Conversely, in times when the U.S. Dollar weakens in relation to these foreign currencies, we would expect to report a net increase in operating income. Thus, changes in the relative strength of the U.S. Dollar may have a material impact on our operating results. Furthermore, our U.S. Dollar based pricing in Southeast Asia may put us at a competitive disadvantage with Asian vendors that offer local currency based pricing.

The loss of a large customer could have an adverse effect on our business.

In 2008, our top five customers accounted for approximately 7% of total revenue. Our expansion into the factory automation marketplace has reduced our reliance upon the revenue from any one customer. Nevertheless, the loss of, or significant curtailment of purchases by, any one or more of our larger customers could have a material adverse effect on our operating results.

The failure of a key supplier to deliver quality product in a timely manner or our inability to obtain components for our products could adversely affect our operating results.

A significant portion of our MVSD product is manufactured by two third-party contractors. As a result, we are dependent upon these contractors to provide quality product and meet delivery schedules. We engage in extensive product quality programs and processes, including actively monitoring the performance of our third-party manufacturers; however, we may not detect all product quality issues through these programs and processes. In addition, a variety of components used in our products are only available from a single source. The announcement by a single-source supplier of a last-time component buy could result in our purchase of a significant amount of inventory that, in turn, could lead to an increased risk of inventory obsolescence. Furthermore, our vendors may experience deterioration in their businesses due to the credit market crisis and slowing global economy, which may impact their ability to fulfill their delivery obligations to us. Although we are taking certain actions to mitigate sole-source supplier risk, an interruption in, termination of, or material change in the purchase terms of any single-source components could have a material adverse effect on our operating results.

Our business could suffer if we lose the services of, or fail to attract, key personnel.

We are highly dependent upon the management and leadership of Robert J. Shillman, our Chief Executive Officer and President, as well as other members of our senior management team. Although we have many experienced and qualified senior managers, the loss of key personnel could have a material adverse effect on our company. Our continued growth and success also depends upon our ability to attract and retain skilled employees and on the ability of our officers and key employees to effectively manage the growth of our business through the implementation of appropriate management information systems and internal controls.

We have historically used stock options as a key component of our employee compensation program in order to align employee interests with the interests of our shareholders, provide competitive compensation and benefits packages, and encourage employee retention. We are limited as to the number of options that we may grant under our stock option plan in future periods without shareholder approval. Furthermore, the recent decline in the stock market has made stock options a less effective means of retaining our employees. Accordingly, we may find it difficult to attract, retain, and motivate employees, and any such difficulty could materially adversely affect our business.

Our products may contain design or manufacturing defects, which could result in reduced demand, significant delays, or substantial costs.

If flaws in either the design or manufacture of our products were to occur, we could experience a rate of failure in our products that could result in significant delays in shipment and material repair or replacement costs. While we engage in extensive product quality programs and processes, including actively

10

monitoring and evaluating the quality of our component suppliers and contract manufacturers, these actions may not be sufficient to avoid a product failure rate that results in:

- substantial delays in shipment,
- significant repair or replacement costs, or
- potential damage to our reputation.

Any of these results could have a material adverse effect on our operating results.

Our failure to develop new products and to respond to technological changes could result in the loss of our market share and a decrease in our revenues and profits.

The market for our products is characterized by rapidly changing technology. Accordingly, we believe that our future success will depend upon our ability to accelerate time to market for new products and functionality with improved ease-of-use, performance, or price. We may not be able to introduce and market new products successfully, including our proposed Vision System on a Chip, and respond effectively to technological changes or new product introductions by competitors. Our ability to keep pace with the rapid rate of technological change in the high-technology marketplace could have a material adverse effect on our operating results.

Our failure to effectively manage product transitions or accurately forecast customer demand could result in excess or obsolete inventory and resulting charges.

Because the market for our products is characterized by rapid technological advances, we frequently introduce new products with improved ease-of-use, improved hardware performance, additional software features and functionality, or lower cost that may replace existing products. Among the risks associated with the introduction of new products are difficulty predicting customer demand and effectively managing inventory levels to ensure adequate supply of the new product and avoid excess supply of the legacy product. In addition, we may strategically enter into non-cancelable commitments with vendors to purchase materials for our products in advance of demand in order to take advantage of favorable pricing or address concerns about the availability of future supplies. Furthermore, the recent global economic slowdown has resulted in lower forecasted demand for our products, which may result in excess or obsolete inventory if we are unable to sell inventory that either is already on hand or committed to purchase. Our failure to effectively manage product transitions or accurately forecast customer demand, in terms of both volume and configuration, has led to, and may again in the future lead to, an increased risk of excess or obsolete inventory and resulting charges.

Our failure to properly manage the distribution of our products and services could result in the loss of revenues and profits.

We utilize a direct sales force, as well as a network of integration and distribution partners, to sell our products and services. Successfully managing the interaction of our direct and indirect sales channels to reach various potential customers for our products and services is a complex process. In addition, our reliance upon indirect selling methods may reduce visibility of demand and pricing issues. Each sales channel has distinct risks and costs, and therefore, our failure to implement the most advantageous balance in the sales model for our products and services could adversely affect our revenue and profitability.

If we fail to successfully protect our intellectual property, our competitive position and operating results could suffer.

We rely on our proprietary software technology and hardware designs, as well as the technical expertise, creativity, and knowledge of our personnel to maintain our position as a leading provider of machine vision products. Although we use a variety of methods to protect our intellectual property, we rely most heavily on patent, trademark, copyright, and trade secret protection, as well as non-disclosure agreements with customers, suppliers, employees, and consultants. We also attempt to protect our intellectual property by

Table of Contents

restricting access to our proprietary information by a combination of technical and internal security measures. These measures, however, may not be adequate to:

- protect our proprietary technology,
- protect our patents from challenge, invalidation, or circumvention, or
- ensure that our intellectual property will provide us with competitive advantages.

Any of these adverse circumstances could have a material adverse effect on our operating results.

Our company may be subject to time-consuming and costly litigation.

From time to time, we may be subject to various claims and lawsuits by competitors, customers, or other parties arising in the ordinary course of business, including lawsuits charging patent infringement. We are currently a party to actions that are fully described in the section captioned Legal Proceedings, appearing in Part I Item 3 of this Annual Report on Form 10-K. These matters can be time-consuming, divert management s attention and resources, and cause us to incur significant expenses. Furthermore, the results of any of these actions may have a material adverse effect on our operating results.

Increased competition may result in decreased demand or prices for our products and services.

We compete with other vendors of machine vision systems, the internal engineering efforts of our current or prospective customers, and the manufacturers of image processing systems, automatic identification systems, and sensors. Any of these competitors may have greater financial and other resources than we do. In recent years, ease-of-use and product price have become significant competitive factors in the factory automation marketplace. We may not be able to compete successfully in the future and our investments in research and development, sales and marketing, and support activities may be insufficient to enable us to maintain our competitive advantage. In addition, competitive pressures could lead to price erosion that could have a material adverse effect on our operating results. We refer you to the section captioned Competition, appearing in Part I Item 1 of this Annual Report on Form 10-K for further information regarding the competition that we face.

Implementation of our acquisition strategy may not be successful, which could affect our ability to increase our revenue or profitability and result in the impairment of acquired intangible assets.

We have in the past acquired, and will in the future consider the acquisition of, businesses and technologies in the machine vision industry. Our business may be negatively impacted by risks related to those acquisitions. These risks include, among others:

- the inability to find or close attractive acquisition opportunities,
- the diversion of management s attention from other operational matters,
- the inability to realize expected synergies resulting from the acquisition,
- the failure to retain key customers or employees, and
- the impairment of acquired intangible assets resulting from lower-than-expected cash flows from the acquired assets.

The recent global economic slowdown has resulted in lower forecasted revenue, which may result in lower estimated future cash flows from acquired assets and increase the likelihood of impairment. Acquisitions are inherently risky and the inability to effectively manage these risks could have a material adverse effect on our operating results.

Table of Contents

We are at risk for impairment charges with respect to our investments or for acquired intangible assets or goodwill, which could have a material adverse effect on our results of operations.

At December 31, 2008, we had $221 million in cash and investments, and approximately $212 million of this balance represented either cash or investments in municipal bonds that could be converted into cash. The remaining balance included $2 million in auction rate securities and a $7 million limited partnership interest in a venture capital fund.

The auction rate securities failed auction during 2008, and therefore, we were unable to sell these securities because of a lack of buying demand. To date, we have collected all interest payable on these securities when due and we believe the full principle value of these securities will ultimately be recovered. However, a default by the issuer would result in an impairment charge to write down this investment in a future period.

The limited partnership s investments consist of a mix of young and emerging companies. The current worldwide economic slowdown and the credit market crisis will likely make the environment for these startups much less forgiving. As a result, it is possible that some of the younger companies in the portfolio that require capital investments to fund their current operations may not be as well prepared to survive this slowdown as would a more mature company. These factors will likely impact the fair value of the companies in the partnership s portfolio and may result in an impairment charge to write down this investment in a future period.

At December 31, 2008, we had $31 million in acquired intangible assets, of which $26 million represented acquired distribution networks. These assets are susceptible to changes in fair value due to a decrease in the historical or projected cash flows from the use of the asset, which may be negatively impacted by economic trends. We have reviewed the expected cash flows from these acquired assets and believe their carrying values are recoverable; however, a decline in the cash flows generated by these assets, such as the revenue we are able to generate through our distribution network, may result in future impairment charges.

At December 31, 2008, we had $81 million in acquired goodwill, $78 million of which is assigned to our Modular Vision Systems Division and $3 million of which is assigned to our Surface Inspection Systems Division. The fair value of goodwill is susceptible to changes in the fair value of the reporting segments in which the goodwill resides, and therefore, a decline in our market capitalization or cash flows relative to the net book value of our segments may result in future impairment charges.

If we determine that any of these investments, acquired intangible assets, or goodwill is impaired, we would be required to take a related charge to earnings that could have a material adverse effect on our results of operations.

We may have additional tax liabilities, which could adversely affect out operating results and financial condition.

We are subject to income taxes in the United States, as well as numerous foreign jurisdictions. Significant judgment is required in determining our worldwide provision for income taxes. In the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. We are regularly under audit by tax authorities. Although we believe our tax positions are reasonable, the final determination of tax audits and any related litigation could be materially different than that which is reflected in our financial statements and could have a material effect on our income tax provision, net income, or cash flows in the period in which the determination is made.

ITEM 1B. UNRESOLVED STAFF COMMENTS

There are no unresolved SEC staff comments as of the date of this report.

Table of Contents

ITEM 2: PROPERTIES

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

In 1995, Cognex purchased an 83,000 square-foot office building adjacent to our corporate headquarters. This building is currently occupied with tenants who have lease agreements that expire at various dates through 2017. Cognex also uses a portion of this space for storage and product demonstrations. A portion of this space is currently unoccupied.

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

In 2007, Cognex purchased a 19,000 square-foot building adjacent to our corporate headquarters. This building is currently occupied by a tenant who has a lease agreement that expires in 2012. A portion of this space is also currently unoccupied.

Cognex conducts certain of its operations in leased facilities. These lease agreements expire at various dates through 2016. Certain of these leases contain renewal options, escalation clauses, rent holidays, and leasehold improvement incentives.

ITEM 3: LEGAL PROCEEDINGS

In March 2006, the Company filed a Declaratory Judgment action in the United States District Court for the District of Minnesota seeking that certain patents being asserted by Acacia Research Corporation and Veritec, Inc., and their respective subsidiaries, be ruled invalid, unenforceable, and/or not infringed by the Company. The Company amended its claim to include state law claims of defamation and violation of the Minnesota Unfair Trade Practices Act. Certain defendants in this action asserted a counterclaim against the Company alleging infringement of the patent-in-suit, seeking unspecified damages. In May 2008, the United States District Court for the District of Minnesota ruled in favor of the Company, granting the Company s motions for summary judgment by finding that the patent-at-issue was both invalid and unenforceable. The defendant s counterclaim of infringement was rendered moot by the finding of invalidity. The court denied Defendant Acacia s motion for summary judgment with respect to the Company s defamation claim; however, the Company and Defendant Acacia settled the Company s outstanding defamation claim against Defendant Acacia prior to trial in December 2008. In connection with this settlement, the parties filed a joint stipulation dismissing all matters with prejudice.

In April 2007, certain of the defendants in the matter referenced above filed an action against the Company in the United States District Court for the Eastern District of Texas asserting a claim of patent infringement of U.S. Patent No. 5.331.176. Pursuant to a joint stipulation filed with the court in May 2008, the parties agreed to voluntarily jointly dismiss this matter without prejudice. The agreement of dismissal places restrictions on when, where, and under what circumstances the claim could be refiled. The Company believes the likelihood is remote that the plaintiffs would refile the claim and that, if refiled, the patent in question would be found to be valid and infringed.

In May 2008, the Company filed a complaint against MvTec Software GmbH, MvTec LLC, and Fuji America Corporation in the United States District Court for the District of Massachusetts alleging infringement of certain patents owned by the Company. This matter is in its early stages. The Company cannot predict the outcome of this matter, and an adverse resolution of this lawsuit could have a material adverse effect on the Company s financial position, liquidity, results of operations, and/or indemnification obligations.

In May 2008, Microscan Systems, Inc. filed a complaint against the Company in the United States District Court for the Western District of Washington alleging infringement of U.S. Patent No. 6.105.869 owned by

Table of Contents

Microscan Systems, Inc. The complaint alleges that certain of the Company s DataMan 100 and 700 series products infringe the patent in question. In November 2008, the Company filed an answer and counterclaim alleging that the Microscan patent was invalid and not infringed, and asserting a claim for infringement of U.S. Patent No. 6.636.298. This matter is in its early stages. The Company cannot predict the outcome of this matter, and an adverse resolution of this lawsuit could have a material adverse effect on the Company s financial position, liquidity, results of operations, and/or indemnification obligations.

Various other claims and legal proceedings generally incidental to the normal course of business are pending or threatened on behalf of or against Cognex. While we cannot predict the outcome of these matters, we believe that any liability arising from them will not have a material adverse effect on our financial position, liquidity, or results of operations.

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, 2008 to a vote of security holders through solicitation of proxies or otherwise.

Table of Contents

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 Cognex s executive officers at December 31, 2008:

Name	Age	Title
Robert J. Shillman	62	Chief Executive Officer, President, and Chairman of the Board of Directors
Eric Ceyrolle	55	Executive Vice President of Worldwide Sales and Marketing, MVSD
Richard A. Morin	59	Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer
Justin Testa	56	Executive Vice President and Business Unit Manager, Vision Systems
Robert Willett	41	President, Modular Vision Systems Division (MVSD)

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

Messrs. Shillman and Morin have been employed by Cognex in their present capacities for no less than the past five years.

Mr. Ceyrolle oversees worldwide direct and channel sales, as well as marketing communications for the Company s Modular Vision Systems Division (MVSD). Mr. Ceyrolle joined Cognex in 1992 as General Manager of European Operations. In 1999, Mr. Ceyrolle s responsibilities were expanded to include Southeast Asia; they were expanded again in 2004 to include Japan and expanded once more in 2006 to include North America, at which time he was promoted to the position of Executive Vice President.

Mr. Testa oversees strategic planning and product development for Cognex s Vision Systems Business Unit, which is responsible for the Company s In-Sight and DVT product lines. Mr. Testa joined Cognex in 1983 as a Sales Engineer and has held a variety of positions within the Company s sales and marketing departments, including Senior Vice President of Marketing, where he was responsible for product management, marketing communications, industry and competitive analyses, and new business development. He was promoted to the position of Executive Vice President in 2008.

Mr. Willett joined the Company in June 2008. Mr. Willett came to Cognex from Danaher Corporation, a diversified manufacturer of industrial controls and technologies, where he served as Vice President of Business Development and Innovation for the Product Identification Business Group. Prior to that, Mr. Willett was President of Videojet Technologies, a leader in coding and marking products, which is a subsidiary of Danaher. Mr. Willett also served as Chief Executive Officer of Willett International Ltd., a privately-owned coding and marking company which was sold to Danaher in 2003 and merged with Videojet. He holds a Bachelor of Arts degree from Brown University and a Masters in Business Administration from Yale University.

Table of Contents

PART II

ITEM 5: MARKET FOR REGISTRANT S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

The Company s common stock is traded on The NASDAQ Stock Market LLC, under the symbol CGNX. As of February 1, 2009, there were approximately 600 shareholders of record of the Company s common stock. The Company believes the number of beneficial owners of the Company s common stock on that date was substantially greater.

The high and low sales prices of the Company s common stock as reported by the NASDAQ Stock Market for each quarter in 2008 and 2007 are as follows:

	First	Second	Third	Fourth
2008				
High	$ 22.16	$ 28.10	$ 25.00	$ 21.23
Low	14.67	21.25	16.57	10.82
2007				
High	$ 24.85	$ 24.24	$ 25.87	$ 22.35
Low	20.83	20.20	16.68	16.74

The Company declared and paid a cash dividend of $0.085 per share in each quarter of 2007, as well as the first and second quarters of 2008. The quarterly dividend was increased to $0.150 per share in the third and fourth quarters of 2008. Any future declaration and payment of cash dividends will be subject to the discretion of the Company s Board of Directors and will depend upon such factors as the Board deems relevant including, among other things, the Company s ability to generate positive cash flow from operations.

In July 2006, 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, 2008, the Company had repurchased 4,480,589 shares at a cost of $100,000,000 under this program. This repurchase program was completed during the second quarter of 2008.

In March 2008, the Company s Board of Directors authorized the repurchase of up to an additional $30,000,000 (plus transaction costs) of the Company s common stock under a Rule 10b5-1 Plan. As of December 31, 2008, the Company had repurchased 1,548,540 shares at a cost of $30,046,000 under this program. This repurchase program was completed during the fourth quarter of 2008. Repurchases under this authorization were subject to the parameters of the Rule 10b5-1 Plan, which provided for repurchases during Cognex self-imposed trading blackout periods related to the announcement of quarterly results.

In April 2008, the Company s Board of Directors authorized the repurchase of up to an additional $50,000,000 of the Company s common stock. As of December 31, 2008, the Company had repurchased 1,038,797 shares at a cost of $20,000,000 under this program. The Company may repurchase shares under this program in future periods depending upon a variety of factors, including, among other things, the stock price levels and share availability.

The Company repurchased a total of 4,618,593 shares at a cost of $92,969,000 during the year ended December 31, 2008, of which 2,031,256 shares at a cost of $42,923,000 were repurchased under the July 2006 program, with the remaining shares purchased under the March 2008 and April 2008 programs.

Table of Contents

The following table sets forth information with respect to purchases by the Company of shares of its common stock during the periods indicated.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs
September 29 October 26, 2008	1,266,298	$ 19.39	1,266,298	$ 30,000,000
October 27 November 23, 2008	-	-	-	$ 30,000,000
November 24 December 31, 2008	-	-	-	$ 30,000,000
Total	1,266,298	$ 19.39	1,266,298	$ 30,000,000

(1) In March 2008, the Company s Board of Directors authorized the repurchase of up to an additional $30,000,000 of the Company s common stock under a Rule 10b5-1 Plan. This repurchase program was completed during the fourth quarter of 2008. In April 2008, the Company s Board of Directors authorized the repurchase of up to an additional $50,000,000 of the Company s common stock.

Table of Contents

Set forth below is a line graph comparing the annual percentage change in the cumulative total shareholder return on the Company s common stock, based upon the market price of the Company s common stock, with the total return on companies within the Nasdaq Composite Index and the Research Data Group, Inc. Nasdaq Lab Apparatus & Analytical, Optical, Measuring & Controlling Instrument (SIC 3820-3829 US Companies) Index (the Nasdaq Lab Apparatus Index). The performance graph assumes an investment of $100 in each of the Company and the two indices, and the reinvestment of any dividends. The historical information set forth below is not necessarily indicative of future performance. Data for the Nasdaq Composite Index and the Nasdaq Lab Apparatus Index was provided to the Company by Research Data Group, Inc.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*
Among Cognex Corporation, The NASDAQ Composite Index
And NASDAQ Stocks (SIC 3820-3829 U.S. Companies) Lab Apparatus & Analyt, Opt, Measuring, and Controlling Instr

* $100 invested on 12/31/03 in stock or index-including reinvestment of dividends.
Fiscal year ending December 31.

	12/2003	12/2004	12/2005	12/2006	12/2007	12/2008
Cognex Corporation	**100.00**	**99.57**	**108.63**	**87.12**	**74.81**	**56.44**
NASDAQ Composite	**100.00**	**110.08**	**112.88**	**126.51**	**138.13**	**80.47**
NASDAQ Stocks	**100.00**	**91.42**	**90.35**	**98.55**	**112.42**	**58.86**

(SIC 3820-3829 U.S. Companies) Lab Apparatus & Analytical, Optical, Measuring, and Controlling Instrument

Table of Contents

ITEM 6: SELECTED FINANCIAL DATA

	Year Ended December 31,				
	2008	2007	2006	2005	2004
	(In thousands, except per share amounts)				
Statement of Operations Data:					
Revenue	**$ 242,680**	$ 225,683	$ 238,318	$ 216,875	$ 201,957
Cost of revenue (1)	**68,427**	64,350	64,838	62,899	57,371
Gross margin	**174,253**	161,333	173,480	153,976	144,586
Research, development, and engineering expenses (1)	**36,262**	33,384	32,332	27,640	27,063
Selling, general, and administrative expenses (1)	**112,629**	99,813	96,675	82,332	70,674
Restructuring charge	**258**	-	-	-	-
Operating income	**25,104**	28,136	44,473	44,004	46,849
Nonoperating income	**10,264**	7,986	6,104	4,242	6,311
Income from continuing operations before income tax expense	**35,368**	36,122	50,577	48,246	53,160
Income tax expense on continuing operations	**4,869**	8,575	10,549	12,544	15,416
Income from continuing operations	**30,499**	27,547	40,028	35,702	37,744
Loss from operations of discontinued business, net of tax	**(3,224)**	(648)	(173)	-	-
Net income	**$ 27,275**	$ 26,899	$ 39,855	$ 35,702	$ 37,744
Basic earnings per weighted-average common and common-equivalent share:					
Income from continuing operations	**$ 0.74**	$ 0.63	$ 0.88	$ 0.76	$ 0.83
Loss from discontinued operations	**$ (0.08)**	$ (0.01)	$ (0.01)	$ 0.00	$ 0.00
Net Income	**$ 0.66**	$ 0.62	$ 0.87	$ 0.76	$ 0.83
Diluted earnings per weighted-average common and common-equivalent share:					
Income from continuing operations	**$ 0.73**	$ 0.63	$ 0.86	$ 0.74	$ 0.80
Loss from discontinued operations	**$ (0.07)**	$ (0.02)	$ (0.01)	$ 0.00	$ 0.00
Net Income	**$ 0.66**	$ 0.61	$ 0.85	$ 0.74	$ 0.80
Weighted-average common and common equivalent shares outstanding:					
Basic	**41,437**	43,725	45,559	46,709	45,480

Diluted		**41,554**		44,063		46,648		47,935		47,358
Cash dividends per common share	**$**	**0.47**	$	0.34	$	0.33	$	0.32	$	0.28
(1) Amounts include stock-based compensation expense, as follows:										
Cost of revenue	**$**	**1,116**	$	1,215	$	1,596	$	-	$	-
Research, development, and engineering		**3,067**		3,239		3,627		-		-
Selling, general, and administrative		**6,048**		7,261		8,401		-		-
Total stock-based compensation expense	**$**	**10,231**	$	11,715	$	13,624	$	-	$	-

	December 31,				
	2008	2007	2006	2005	2004
			(In thousands)		
Balance Sheet Data:					
Working capital	**$ 213,374**	$ 269,528	$ 266,647	$ 268,612	$ 242,460
Total assets	**474,047**	539,546	528,651	564,562	533,308
Long-term debt	-	-	-	-	-
Shareholders equity	**413,075**	476,365	473,850	506,521	462,807

ITEM 7: MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION 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, constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Readers can identify these forward-looking statements by our use of the words expects, anticipates, estimates, believes, projects, intends, plans, will, could, and similar words and other statements of a similar sense. These statements are based upon our current estimates and expectations as to prospective events and circumstances, which may or may not be in our control and as to which there can be no firm assurances given. These forward-looking statements involve known and unknown risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include: (1) current and future conditions in the global economy; (2) the cyclicality of the semiconductor and electronics industries; (3) the inability to achieve significant international revenue; (4) fluctuations in foreign currency exchange rates; (5) the loss of a large customer; (6) the reliance upon key suppliers to manufacture and deliver critical components for our products; (7) the inability to attract and retain skilled employees; (8) the inability to design and manufacture high-quality products; (9) the technological obsolescence of current products and the inability to develop new products; (10) the failure to effectively manage product transitions or accurately forecast customer demand; (11) the failure to properly manage the distribution of products and services; (12) the inability to protect our proprietary technology and intellectual property; (13) our involvement in time-consuming and costly litigation; (14) the impact of competitive pressures; (15) the challenges in integrating and achieving expected results from acquired businesses; (16) potential impairment charges with respect to our investments or for acquired intangible assets or goodwill; and (17) exposure to additional tax liabilities. The foregoing list should not be construed as exhaustive and we encourage readers to refer to the detailed discussion of risk factors included in Part I Item 1A of this Annual Report on Form 10-K. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company disclaims any obligation to subsequently revise forward-looking statements to reflect the occurrence of anticipated or unanticipated events or circumstances after the date such statements are made.

EXECUTIVE OVERVIEW

Cognex Corporation is a leading worldwide provider of machine vision products that capture and analyze visual information in order to automate tasks, primarily in manufacturing processes, where vision is required. Our Modular Vision Systems Division (MVSD) specializes in machine vision systems that are used to automate the manufacturing of discrete items, while our Surface Inspection Systems Division (SISD) specializes in machine vision systems that are used to inspect the surfaces of materials processed in a continuous fashion.

In addition to product revenue derived from the sale of machine vision systems, the Company also generates revenue by providing maintenance and support, training, consulting, and installation services to its customers. Our customers can be classified into three primary markets: discrete factory automation, semiconductor and electronics capital equipment, and surface inspection.

Discrete factory automation customers purchase Cognex vision products and incorporate them into their manufacturing processes. Virtually every manufacturer can achieve better quality and manufacturing efficiency by using machine vision, and therefore, this segment includes a broad base of customers across a variety of industries, including automotive, consumer electronics, food and beverage, health and beauty, medical devices, packaging, and pharmaceutical. Sales to discrete factory automation customers represented approximately 68% of total revenue in 2008, compared to 62% of total revenue in 2007.

Semiconductor and electronics capital equipment manufacturers purchase Cognex vision products and integrate them into the automation equipment that they manufacture and then sell to their

Table of Contents

customers to either make semiconductor chips or assemble printed circuit boards. Demand from these capital equipment manufacturers has historically been highly cyclical, with periods of investment followed by downturn. This market has been in a prolonged downturn since early 2006. Sales to semiconductor and electronics capital equipment manufacturers represented approximately 17% of total revenue in 2008, compared to 25% of total revenue in 2007.

Surface inspection customers are manufacturers of materials processed in a continuous fashion, such as metals, paper, non-wovens, plastics, and glass. These customers need sophisticated machine vision to detect and classify defects on the surfaces of those materials as they are being processed at high speeds. Surface inspection sales represented approximately 15% of total revenue in 2008, compared to 13% of total revenue in 2007.

Revenue for the year ended December 31, 2008 totaled $242,680,000, representing an 8% increase from the prior year. This increase was due to higher sales to discrete factory automation and surface inspection customers. Despite the higher revenue, operating income decreased to 10% of revenue in 2008 from 12% of revenue in 2007, as a result of higher operating expenses due to investments intended to grow the discrete factory automation business. Income per share from continuing operations increased to $0.73 per diluted share in 2008 from $0.63 per diluted share in 2007 due to the impact of favorable discrete tax events, higher foreign currency gains, and lower weighted-average shares as a result of the Company s stock repurchase programs.

In July 2008, the Company sold all of the assets of its lane departure warning business for $3,208,000 in cash. Management classified the assets of this business as held-for-sale as of June 29, 2008 and recorded a $2,987,000 impairment loss in the second quarter of 2008 relating to the sale of this business. Loss from discontinued operations amounted to $0.07 per diluted share in 2008.

The Company s revenue and profitability have been and will continue to be impacted by worldwide economic conditions, including the slowing global economies, the credit market crisis, and declining business confidence. These factors have contributed to delayed, reduced, or canceled capital spending by many companies, including many of the Company s current and potential customers. While demand from the Company s customers in the semiconductor and electronics capital equipment market has been declining since 2006 due to cyclicality in these industries as well as competitive market pressures, demand from the Company s factory automation customers was strong in the first half of 2008, particularly in Europe and Asia. Factory automation demand began to be impacted by the worldwide economic slowdown in the third quarter of 2008, and revenue from this market was down 15% in the fourth quarter of 2008 from the prior quarter. While revenue, to date, from the Company s surface inspection