

COHERENT INC

Form 10-K

November 30, 2011

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[TABLE OF CONTENTS](#)

[PART IV](#)

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 October 1, 2011

or

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

Commission File Number: 001-33962

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COHERENT, INC.

Delaware

94-1622541

(State or other jurisdiction of incorporation or organization)

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

5100 Patrick Henry Drive, Santa Clara, California

95054

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: (408) 764-4000

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

Title of each class

Name of each exchange on which registered

Common Stock, \$0.01 par value

The NASDAQ Stock Market LLC  
Nasdaq Global Select Market

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"). Yes  No

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§229.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files. Yes  No

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

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 definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer       Accelerated filer       Non-accelerated filer   
(Do not check if a smaller reporting company)      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

As of November 25, 2011, 23,594,170 shares of common stock were outstanding. The aggregate market value of the voting shares (based on the closing price reported on the NASDAQ Global Select Market on April 1, 2011, of Coherent, Inc., held by nonaffiliates was approximately \$1,148,000,000. For purposes of this disclosure, shares of common stock held by persons who own 5% or more of the outstanding common stock and shares of common stock held by each officer and director have been excluded in that such persons may be deemed to be "affiliates" as that term is defined under the Rules and Regulations of the Exchange Act. This determination of affiliate status is not necessarily conclusive.

**DOCUMENT INCORPORATED BY REFERENCE**

Portions of the registrant's Proxy Statement for the registrant's fiscal 2012 Annual Meeting of Stockholders are incorporated by reference into Part III of the Form 10-K to the extent stated herein. The Proxy Statement or an amended report on Form 10-K will be filed within 120 days of the registrant's fiscal year ended

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Use these links to rapidly review the document

[TABLE OF CONTENTS](#)

[PART IV](#)

October 1, 2011.

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Table of Contents

## TABLE OF CONTENTS

PART I

<u>ITEM 1.</u>	<u>BUSINESS</u>	<u>4</u>
<u>ITEM 1A.</u>	<u>RISK FACTORS</u>	<u>18</u>
<u>ITEM 1B.</u>	<u>UNRESOLVED STAFF COMMENTS</u>	<u>31</u>
<u>ITEM 2.</u>	<u>PROPERTIES</u>	<u>32</u>
<u>ITEM 3.</u>	<u>LEGAL PROCEEDINGS</u>	<u>33</u>
<u>ITEM 4.</u>	<u>(REMOVED AND RESERVED)</u>	<u>34</u>

PART II

<u>ITEM 5.</u>	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>35</u>
<u>ITEM 6.</u>	<u>SELECTED FINANCIAL DATA</u>	<u>37</u>
<u>ITEM 7.</u>	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>38</u>
<u>ITEM 7A.</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>54</u>
<u>ITEM 8.</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>55</u>
<u>ITEM 9.</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>55</u>
<u>ITEM 9A.</u>	<u>CONTROLS AND PROCEDURES</u>	<u>56</u>
<u>ITEM 9B.</u>	<u>OTHER INFORMATION</u>	<u>57</u>

PART III

<u>ITEM 10.</u>	<u>DIRECTORS AND EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>58</u>
<u>ITEM 11.</u>	<u>EXECUTIVE COMPENSATION</u>	<u>59</u>
<u>ITEM 12.</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>59</u>
<u>ITEM 13.</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE</u>	<u>59</u>
<u>ITEM 14.</u>	<u>PRINCIPAL ACCOUNTANT FEES AND SERVICES</u>	<u>59</u>

PART IV

<u>ITEM 15.</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>61</u>
<u>SIGNATURES</u>		<u>63</u>

Table of Contents

SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This Annual Report contains forward-looking statements. These forward-looking statements include, without limitation, statements relating to:

- expansion into, and financial returns from, new markets;
  
- optimization of financial returns;
  
- maintenance and development of current and new customer relationships;
  
- enhancement of market position through existing or new technologies;
  
- optimization of product mix;
  
- future trends in microelectronics, scientific research and government programs, OEM components and instrumentation and materials processing;
  
- utilization of vertical integration;
  
- adoption of our products or lasers generally;
  
- applications and processes that will use lasers, including the suitability of our products;
  
- capitalization on market trends;
  
- alignment with current and new customer demands;
  
- emergence of OLED technology;
  
- use of lasers in the manufacture of solar cells;
  
- positioning in the marketplace and gains of market share;
  
- leadership position;
  
- design and development of products, services and solutions;
  
- control of supply chain and partners;
  
- realization of restructuring benefits;
  
- establishment of global sourcing function;
  
- protection of intellectual property rights;
  
- cancellation rates;
  
- employees recruiting and retention;
  
- compliance with environmental and safety regulations;

- net sales and operating results;
- variations in stock price;
- research and development expenditures and benefits;
- market acceptance of products;

2

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Table of Contents

- conversion of bookings to net sales;
- flat panel displays orders;
- trends in the instrumentation market;
- sufficiency and management of cash, cash equivalents and investments;
- acquisition efforts and associated potential capital commitments;
- accounting for goodwill and intangible assets, inventory valuation, warranty reserves and taxes; and  
future net revenue.

In addition, we include forward-looking statements under the "Our Strategy" and "Future Trends" headings set forth below in "Business" and under the "Bookings and Book-to-Bill Ratio" heading set forth below in "Management's Discussion and Analysis of Financial Condition and Results of Operations."

You can identify these and other forward-looking statements by the use of the words such as "may," "will," "could," "would," "should," "expects," "plans," "anticipates," "estimates," "intends," "potential," "projected," "continue," "our observation," or the negative of such terms, or other comparable terminology. Forward-looking statements also include the assumptions underlying or relating to any of the foregoing statements.

Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth below in "Business," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and under the heading "Risk Factors." All forward-looking statements included in this document are based on information available to us on the date hereof. We undertake no obligation to update these forward-looking statements as a result of events or circumstances or to reflect the occurrence of unanticipated events or non-occurrence of anticipated events.

Table of Contents

PART I

ITEM 1. BUSINESS

GENERAL

Business Overview

Our fiscal year ends on the Saturday closest to September 30. Fiscal years 2011, 2010 and 2009 ended on October 1, October 2, and October 3, respectively, and are referred to in this annual report as fiscal 2011, fiscal 2010 and fiscal 2009 for convenience. Fiscal years 2011 and 2010 included 52 weeks; fiscal year 2009 included 53 weeks.

We are one of the world's leading suppliers of photonics-based solutions in a broad range of commercial and scientific research applications. We design, manufacture, service and market lasers and related accessories for a diverse group of customers. Since inception in 1966, we have grown through internal expansion and through strategic acquisitions of complementary businesses, technologies, intellectual property, manufacturing processes and product offerings.

We are organized into two operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). This segmentation reflects the go-to-market strategies for various products and markets. While both segments deliver cost-effective photonics solutions, CLC focuses on higher volume products that are offered in set configurations. The product architectures are designed for easy exchange at the point of use such that substantially all product service and repairs are based upon advanced replacement and depot (i.e., factory) repair. CLC's primary markets include materials processing and original equipment manufacturer ("OEM") components and instrumentation. SLS develops and manufactures configurable, advanced performance products largely serving the microelectronics, OEM components and instrumentation and scientific research and government programs markets. The size and complexity of many of the SLS products require service to be performed at the customer site by factory-trained field service engineers.

Effective as of the beginning of the first quarter of fiscal 2009, we moved our diode pumped solid state ("DPSS") Germany and Crystal product families from the CLC segment into the SLS segment. This concentrated all DPSS product families in the SLS segment. All reporting has been aligned to reflect the revised reportable operating segments (CLC and SLS) and prior periods have been restated. See additional discussion in Note 18 "Segment and Geographic Information" of our Notes to Consolidated Financial Statements under Item 15 of this Annual Report on Form 10-K.

Income (loss) from operations is the measure of profit and loss that our chief operating decision maker ("CODM") uses to assess performance and make decisions. Income (loss) from operations represents the sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating expenses, which we manage separately at the corporate level. These unallocated costs include stock-based compensation and corporate functions (certain advanced research and development, management, finance, legal and human resources) and are included in Corporate and other. Management does not consider unallocated Corporate and other costs in its measurement of segment performance.

We were originally incorporated in California on May 26, 1966 and reincorporated in Delaware on October 1, 1990. Additional information about Coherent, Inc. (referred to herein as the Company, we, our, or Coherent) is available on our web site at [www.coherent.com](http://www.coherent.com). We make available, free of charge on our web site, access to our annual report on Form 10-K, our quarterly reports on Form 10-Q, our current reports on Form 8-K 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 (the "Exchange Act"), as soon as reasonably practicable after we file or furnish them electronically with the Securities and Exchange Commission ("SEC"). Information contained on our web site is not part of this annual report or our other filings with the SEC. Any product, product name, process, or technology described in these materials is the property of Coherent, Inc.

INDUSTRY BACKGROUND

The word "laser" is an acronym for "light amplification by stimulated emission of radiation." A laser emits an intense coherent beam of light with some unique and highly useful properties. Most importantly, a laser is orders of magnitude brighter than any lamp. As a result of its coherence, the beam can be focused to a very small and intense



spot, useful for applications requiring very high power densities including cutting and other materials processing procedures. The laser's high spatial resolution is also useful for microscopic imaging and inspection applications. Laser light can be monochromatic—all the beam energy is confined to a narrow wavelength band. Some lasers can be used to create ultrafast output—a series of pulses with pulse durations as short as attoseconds (i.e.,  $10^{-18}$  seconds). There are many types of lasers and one way of classifying them is by the material or medium used to create the lasing action. This can be in the form of a gas, liquid, semiconductor or solid state crystal. Lasers can also be classified by their

## Table of Contents

output wavelength: ultraviolet, visible, infrared or wavelength tunable. We manufacture all of these laser types. There are also many options in terms of pulsed output versus continuous wave, pulse duration, output power, beam dimensions, etc. In fact, each application has its specific requirements in terms of laser performance. The broad technical depth at Coherent enables us to offer a diverse set of product lines characterized by lasers targeted at growth opportunities and key applications. In all cases, we aim to be the supplier of choice by offering a high-value combination of superior technical performance and high reliability.

Photonics has taken its place alongside electronics as a critical enabling technology for the twenty-first century. Photonics based solutions are entrenched in broad industries that include industrial automation, textile processing, microelectronics, flat panel displays and medical diagnostics, with adoption continuing in ever more diverse applications. Growth in these applications stems from two sources. First, there are many applications where the laser is displacing conventional technology because it can do the job faster, better or more economically. Second, there are new applications where the laser is the enabling tool that makes the work possible (e.g., the production of sub 50 micron microvias) used in the manufacture of high density printed circuit boards found in the latest smartphones and tablet computers.

Key laser applications include: micro and nanotechnologies; solar cell production; semiconductor inspection; microlithography; measurement, test and repair of electronic circuits; flat panel display manufacturing; medical and bio-instrumentation; industrial process and quality control; materials processing; imaging and printing; graphic arts and display; and, research and development. For example, ultraviolet ("UV") lasers are enabling the move towards miniaturization, which drives innovation and growth in many markets. The short wavelength of lasers that produce light in the UV spectral region makes it possible to manufacture extremely small structures with maximum precision—consistent with the latest state-of-the-art technology.

### OUR STRATEGY

We strive to develop innovative and proprietary products and solutions that meet the needs of our customers and that are based on our core expertise in lasers and optical technologies. In pursuit of our strategy, we intend to:

Leverage our technology portfolio and application engineering to lead the proliferation of photonics into broader markets—We will continue to identify opportunities in which our technology portfolio and application engineering can be used to offer innovative solutions and gain access to new markets. We plan to utilize our expertise to expand into new markets, such as laser-based processing development tools for solar manufacturing and high power materials processing solutions.

Optimize our leadership position in existing markets—There are a number of markets where we have historically been at the forefront of technological development and product deployment and from which we have derived a substantial portion of our revenues. We plan to optimize our financial returns from these markets.

Maintain and develop additional strong collaborative customer and industry relationships—We believe that the Coherent brand name and reputation for product quality, technical performance and customer satisfaction will help us to further develop our loyal customer base. We plan to maintain our current customer relationships and develop new ones with customers who are industry leaders and work together with these customers to design and develop innovative product systems and solutions as they develop new technologies.

Develop and acquire new technologies and market share—We will continue to enhance our market position through our existing technologies and develop new technologies through our internal research and development efforts, as well as through the acquisition of additional complementary technologies, intellectual property, manufacturing processes and product offerings.

Streamline our manufacturing structure and improve our cost structure—We will focus on optimizing the mix of products that we manufacture internally and externally. We will utilize vertical integration where our internal manufacturing process is considered proprietary and seek to leverage external sources when the capabilities and cost structure are well developed and on a path towards commoditization.

Focus on long-term improvement of adjusted EBITDA, in dollars and as a percentage of net sales—We define adjusted EBITDA as operating income adjusted for depreciation, amortization, stock compensation expenses, major restructuring costs and certain other non-operating income and expense items. Key initiatives to reach our goals for EBITDA improvements include utilization of our Asian manufacturing locations, rationalizing our supply chain and

continued leveraging of our infrastructure.

5

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## Table of Contents

### APPLICATIONS

Our products address a broad range of applications that we group into the following markets: Microelectronics, Scientific Research and Government Programs, OEM Components and Instrumentation and Materials Processing.

#### Microelectronics

Nowhere is the trend towards miniaturization more prevalent than in the Microelectronics market where smart phones, tablets, ultrabooks, personal computers ("PC's") and televisions ("TV's") are driving advances in displays, integrated circuits and printed circuit boards ("PCB's"). In response to market demands and expectations, semiconductor and device manufacturers are continually seeking to improve their process and design technologies in order to manufacture smaller, more powerful and more reliable devices at lower cost. New laser applications and new laser technologies are a key element in delivering higher resolution and higher precision at lower manufacturing cost.

We support four major markets in the microelectronics industry: (1) flat panel display manufacturing, (2) advanced packaging and interconnects, (3) semiconductor front-end, and (4) solar cell production and other emerging processes.

#### Microelectronics—flat panel display manufacturing

The high-volume consumer market is driving the production of flat panel displays ("FPDs") in applications such as mobile telephones, tablets, ultrabooks, laptop computers, television monitors, digital cameras, personal digital assistants ("PDAs") and car navigation systems. There are several types of established and emerging displays based on quite different technologies, including plasma ("PDP"), liquid crystal ("LCD") and organic polymers ("OLED"). Lasers have found applications in each of these technologies given that the laser provides higher process speed, better yield, improved battery life, lower cost and/or superior display brightness and resolution.

Several display types require a high-density pattern of silicon Thin Film Transistors ("TFTs"). If this silicon is polycrystalline, the performance is greatly enhanced. In the past, these polysilicon layers could only be produced on expensive special glass at high temperatures. However, excimer based processes, such as excimer laser annealing ("ELA") have allowed high-volume production of low-temperature polysilicon ("LTPS") on conventional glass substrates. Our excimer lasers provide an invaluable solution for LTPS because they are the only industrial-grade excimer lasers with the high pulse energy optimized for this application. The current state-of-the-art product for this application is our excimer VYPER laser, which delivers over 1000W of power, enabling customers to scale to current Generation 5 & 5.5 substrates and in the near future up to Generation 8 sizes, when coupled with our latest 750mm length Line Beam optical delivery system (LB-750). These systems are integral to the manufacturing process on all leading LTPS based smartphone displays, with the highest commercially available pixel densities of greater than 300 pixels per inch (ppi) and hold the potential for widespread deployment in tablet computing and future OLED TV manufacturing.

Our AVIA and DIAMOND lasers are also used in other production processes for FPDs. These processes include drilling, cutting, patterning, marking and yield improvement.

Lasers have also become a valuable tool in high-brightness (HB) LED manufacturing, improving LED performance and yield. LED has seen rapid growth in the last year due to widespread adoption as the light source in all categories of LCD displays, from phones all the way to full size TV's. Our lasers are used in the back-end processing of HB-LEDs.

#### Microelectronics—advanced packaging and interconnects

After a wafer is patterned, there are then a host of other processes, referred to as back-end processing, which finally result in a packaged encapsulated silicon chip. Ultimately, these chips are then assembled into finished products. The advent of high-speed logic and high-memory content devices has caused chip manufacturers to look for alternative technologies to improve performance and lower process costs. In terms of materials, this search includes new types of wafers based on low-k materials and thinner silicon. Our AVIA and Matrix lasers are providing economic methods of cutting and scribing these wafers while delivering higher yields than traditional mechanical methods. Our DIAMOND carbon dioxide ("CO<sub>2</sub>") lasers are used for singulating packages and printed circuit boards into individual components for final assembly. Our Talisker lasers are used in a broad range of applications requiring high precision and low heat damage, such as in thin wafer cutting and drilling.

These same trends are also driving integration and miniaturization, blurring the traditional lines between formerly discrete applications such as assembly and PCB fabrication. Lasers are playing several enabling roles in this

integration and miniaturization. For instance, lasers are now the only economically practical method for drilling microvias in chip assemblies and in both rigid and flexible printed circuit boards. These microvias are tiny interconnects that are essential for enabling high-density circuitry commonly used in mobile handsets and advanced computing systems. Our AVIA and DIAMOND lasers are the lasers of choice in this application. The ability of these lasers to operate at very high repetition rates translates into faster drilling speeds and increased throughput in Microvia processing applications.

6

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## Table of Contents

Other applications have developed as well. For instance, the high density of the latest circuit boards is reaching the limits of conventional printing technologies, causing wider adoption of laser direct write methods. Our Paladin laser is used for this application.

### Microelectronics—semiconductor front-end

The term "front-end" refers to the production of semiconductor devices which occurs prior to packaging.

As semiconductor device geometries decrease in size, devices become increasingly susceptible to smaller defects during each phase of the manufacturing process and these defects can negatively impact yield. One of the semiconductor industry's responses to the increasing vulnerability of semiconductor devices to smaller defects has been to use defect detection and inspection techniques that are closely linked to the manufacturing process. For example, automated laser-based inspection systems are now used to detect and locate defects as small as 0.01 micron, which may not be observable by conventional optical microscopes.

Detecting the presence of defects is only the first step in preventing their recurrence. After detection, defects must be examined in order to identify their size, shape and the process step in which the defect occurred. This examination is called defect classification. Identification of the sources of defects in the lengthy and complex semiconductor manufacturing process has become essential for maintaining high yield production. Semiconductor manufacturing has become an around-the-clock operation and it is important for products used for inspection, measurement and testing to be reliable and to have long lifetimes. Our Azure, Paladin, Sapphire, and Excimer lasers are used to detect and characterize defects in semiconductor chips.

### Microelectronics—solar cell production

Numerous areas of microelectronics can be grouped as "emerging technologies." Some of these are transitioning to volume production in the present timeframe while others are more forward-looking.

Today's higher energy costs have led to heightened interest in solar panels. The interest in solar cell technology coupled with the intense focus on improving cell efficiency, is driving the adoption of laser technology in the manufacturing of solar cells. Our lasers, such as AVIA, Paladin, Matrix and Talisker, are used in the production of solar panels with applications such as dopant activation in the Crystalline Silicon (C:Si) cells and transparent conductive oxide ("TCO") scribing purposes in Thin Film designs.

We have introduced a number of complete solutions for certain processes in the manufacturing of solar cells including the Coherent Equinox laser system and the Aethon laser system. These systems are based on Coherent lasers and can be used in a production or process development environment.

### Scientific research and government programs

We are widely recognized as a technology innovator and the scientific market has historically provided an ideal "test market" for our leading-edge innovations. These have included ultrafast lasers, DPSS lasers, continuous-wave ("CW") systems, excimer gas lasers and water-cooled ion gas lasers. Our portfolio of lasers that address the scientific research market is broad and includes our Chameleon, COMPexPro, Evolution, Legend, Libra, MBD, MBR, Micra, Mira, Mantis and Verdi lasers. Many of the innovations and products pioneered in the scientific marketplace have become commercial successes for both our OEM customers and us.

We have a large installed base of scientific lasers which are used in a wide range of applications spanning virtually every branch of science and engineering. These applications include biology and life science, engineering, physical chemistry and physics. Most of these applications require the use of ultrafast lasers that enable the generation of pulses short enough to be measured in attoseconds ( $10^{-18}$  seconds). Because of these very short pulse durations, ultrafast lasers enable the study of fundamental physical and chemical processes with temporal resolution unachievable with any other tool. These lasers also deliver very high peak power and large bandwidths, which can be used to generate many exotic effects. Some of these are now finding their way into mainstream applications, such as microscopy or materials processing. In fact, the use of ultrafast lasers such as the Chameleon in microscopy is now a common occurrence in bio-imaging labs.

### OEM components and instrumentation

Instrumentation is one of our more mature commercial applications. Representative applications within this market include bio-instrumentation, medical OEMs, graphic arts and display and machine vision. We also support the laser-based instrumentation market with a range of laser-related components, including diode lasers for optical

pumping. Some of our OEM component business includes sales to other, less integrated laser manufacturers participating in OEM markets such as materials processing, scientific, and medical.  
Bio-instrumentation

7

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## Table of Contents

Bio-instrumentation applications for lasers include bio-agent detection for point source and standoff detection of pathogens or other bio-toxins; confocal microscopy for biological imaging that allows researchers and clinicians to visualize cellular and subcellular structures and processes with an incredible amount of detail; DNA sequencing that provides automation and data acquisition rates that would be impossible by any other method; drug discovery—genomic and proteomic analyses that enable drug discovery to proceed at very high throughput rates; and flow cytometry for analyzing single cells or populations of cells in a heterogeneous mixture, including blood samples. Specifically, our Sapphire, Compass and Coherent CUBE lasers are used in several bio-instrumentation applications.

### Medical Therapy

We sell a variety of components and lasers to medical laser companies in end-user applications such as ophthalmology, aesthetic, surgical, therapeutic and dentistry. Our DIAMOND series CO<sub>2</sub> lasers are widely used in ophthalmic, aesthetic and surgical markets. Our Compass and Sapphire series of lasers are used in the retinal scanning market in diagnostic imaging systems as well as new ground breaking in-vivo imaging applications. In addition, we have a leading position in Lasik and photorefractive keratectomy ("PRK") surgery methods with our ExciStar XS excimer laser platform.

The unique ability of our optically pumped semiconductor lasers ("OPSL") technology to match a wavelength to an application has led to the development of a high-power yellow (577nm) laser for the treatment of eye related diseases, such as Age Related Macular Degeneration and retinal diseases associated with diabetes. The 577nm wavelength was designed to match the peak in absorption of oxygenated hemoglobin thereby allowing treatment to occur at a lower power level, and thus reducing stress and heat-load placed on the eye with traditional green-based (530nm) solid state lasers. This technology is finding traction with both medical OEMs and ophthalmologists.

### Materials Processing

Lasers are widely accepted today in many important industrial manufacturing applications including cutting, welding, joining, drilling, perforating, and marking of metals and nonmetals. We supply high-power lasers for metal processing and low-to-medium power lasers for laser marking, nonmetals processing and precision micromachining.

Our high power industrial laser systems are used for cutting, cladding and hardening of metals, joining materials, and other materials processing applications. Other applications include welding of plastics and direct metal welding.

Our Semiconductor business provides higher power arrays with powers in excess of 50Kilowatts through its proprietary cooling and stacking technology. This unique technology provides the engine for both our Highlight direct diode systems as well as our upcoming kW class fiber laser. Complementing our high power solid state lasers is our industry leading DIAMOND E1000 CO<sub>2</sub> laser. Introduced in 2009, this laser remains in high demand due to its high power, small size and completely sealed design - all ideal for material processing.

Combining the high power Direct Diode, Fiber and CO<sub>2</sub> offerings with our MetaBeam 1000 flatbed cutting tool provides a strong, compelling four-pronged approach to meeting the needs of our diverse materials processing customers.

In 2010 we acquired Beam Dynamics, Inc., a manufacturer of flexible laser cutting tools for the materials processing market. These tools, when combined with Coherent's medium to high power CO<sub>2</sub> lasers, offer a unique blend of performance and precision in a small lightweight tool for cutting of metals and non-metals. Enabled with the DIAMOND E1000, the new METABEAM 1000 offers the industry's most compact 1kW tool, with tools footprints at least 50% smaller than competitive designs. Operating costs, due to the sealed nature of the DIAMOND series of CO<sub>2</sub> lasers are 75% less than similar, but larger tools.

We also participate in the low to medium power area, including such applications as the cutting, drilling and joining of host of materials using our DIAMOND CO<sub>2</sub> lasers; Highlight FAP semiconductor lasers in OEM opportunities and direct end user applications with the lower power OMNIBEAM and METABEAM cutting tools; applications including cutting, perforating and scoring of paper, thin metals and packaging materials; and various cutting and patterning applications in the textile, wood and sign industries. In the specific area of textiles and clothing, our DIAMOND lasers service older applications, such as cutting complex shapes in leather for footwear, as well as newer applications such as creating detailed fade patterns on designer denims.

Laser marking and coding are generally considered part of the precision materials processing applications market for which we remain a leading supplier. One such area where applications are growing rapidly is the displacement of



ink-jet coding due to both aesthetic and environmental pressures. The optimum choice of laser depends on the material being marked, whether it is a surface mark (engraved) or a sub-surface mark, and the specific economics of the application. We provide lasers for all important marking applications. Our DIAMOND C and GEM Series of CO<sub>2</sub> lasers provide many systems manufacturers with a reliable cost effective source for marking and engraving on non-metals. In addition, our Matrix product line of reliable,

8

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## Table of Contents

compact and low-cost diode pumped solid state lasers provides an ideal solution for marking of other materials in high volume manufacturing.

### FUTURE TRENDS

#### Microelectronics

Lasers are widely used in mass production microelectronics applications largely because they enable entirely new application capabilities that cannot be realized by any other known means. These laser-based fabrication and testing methods provide a level of precision, typically on a micrometer and nanometer level, that are unique, faster, are touch free, deliver superior end products, increase yields, and/or cut production costs. We anticipate this trend to continue, driven primarily by the increasing sophistication of consumer electronic goods and their convergence via the internet, resulting in increasing demand for better displays, more bandwidth and memory, while at the same time consuming less power. Although this market follows the macro-economic trends and carries inherit risks, we believe that Coherent is well positioned to continue to capitalize on the current market trends and that we will see continued increased adoption of our pulsed fiber, solid-state, CO<sub>2</sub>, direct diode and excimer lasers, as all these lasers enable entirely new applications, performance improvements and reduced process costs.

LTPS based high resolution mobile displays (greater than 300ppi), and especially the emergence of OLED technology, look set to dominate the FPD technology trends of the future. We believe we are well positioned, especially with our Vyper Excimer lasers and LB optical systems, to take advantage of this trend, including the possibility of LTPS based OLED TVs. CO<sub>2</sub>, Avia, Talisker and direct diode lasers all seem aligned with the need for related FPD touch panel, thin film cutting, light guide technology, frit welding and glass cutting applications.

Semiconductor devices look set to continue Moore's Law, shrinking device geometries for at least another decade, as well as expanding vertically into new 3D structures. As a result we believe our many deep UV laser sources (such as Paladin, Avia, Talisker, ExiStar and Matrix) will continue to find increasing adoption, since their unique optical properties align well with the process demands of a nanometer scale world.

The same lasers plus CO<sub>2</sub> are also widely adopted for back end Advanced Packaging and Interconnect (API) applications. With dimension roadmaps showing a decade of dimension shrink on PCBs, interconnects, Silicon & LED scribe widths and glass thickness, we believe that our portfolio of lasers aligns well with these demands as well as new processes that seem likely to be enabled by our lasers, to meet the increasing demands and decreasing tolerances of these markets.

The short term outlook for solar is uncertain given the global economy, credit availability and the significant oversupply of cell production that exists at this time. The longer term outlook for this ultimate clean, free and abundant source of energy is expected to be strong; however, the timing is uncertain. We believe that the vast majority of leading solar cell manufacturers have laser based processes on their roadmap to enable higher conversion efficiencies. Lasers provide a touch-free manufacturing process on increasingly fragile substrates (as they get thinner). They also hold the promise of lower manufacturing costs and higher yield for certain process steps. We believe we are well positioned as this market matures, standardizes processes and recovers economically.

#### Scientific research and government programs

The scientific market benefited from stimulus funding during fiscal 2011, with applications in ultrashort pulses and in bio-research being the drivers of this anticipated expansion. We anticipate the total amount of government-related funding for scientific research to decline from prior stimulus levels, but believe that as we push the boundaries of performance and ease of use in our ultrafast lasers, we have the potential to capture a larger share of the funds that are available by enabling our customers to win funding for new research fields that drive discovery. While these markets remain highly competitive, we believe our leadership position and new product pipeline will drive Attosecond science boundaries and Biological Imaging ease of use, enabling new research frontiers to be forged and we would expect a gain in market share as a result.

#### OEM components and instrumentation

The instrumentation market is seeing a gradual migration from the use of mature laser technologies, such as water-cooled ion gas lasers, to new technologies, primarily based on solid state and semiconductor lasers. Using our unique portfolio of such lasers, as well as our patented OPSL technology, we are able to both assist and stimulate this transition as well as to be the technology of choice for developing applications such as security and clinical

diagnostics. Our OPSL technology resulted in the first truly continuous solid-state UV laser which enables the use of UV in a clinical as well as a research environment. Furthermore we anticipate greater future opportunities in bio-instrumentation, including DNA sequencing, drug discovery, flow cytometry, and microscopy, based on our product enhancements and evolving market developments, particularly in increased migration from clinical to point-of-care diagnostics. Our newer laser technologies are the basis of a number of clinical procedures. In the area of photocoagulation, the Genesis OPSL yellow lasers are being used as the wavelength is particularly

Table of Contents

suitable for the treatment of blood vessels. In aesthetic laser procedures, we are an OEM supplier of CO<sub>2</sub> and semiconductor lasers to the major manufacturers of equipment used in the latest procedures in dermatology and hair removal. We supply excimer lasers used in refractive eye surgery and are actively involved in further developments in laser vision correction.

Materials processing

The market for low to medium power CO<sub>2</sub>, solid state and semiconductor lasers used in industrial materials processing has experienced a nice rebound and is expected to see continued growth driven by wider adoption of lasers in new processes especially in emerging markets. Key design wins as well as more favorable markets continue to support our growth in this area. These lasers represent a cost-effective manufacturing solution for cutting, joining, marking and engraving of non-metal materials including marking/coding, flat bed cutting, engraving, as well as the production of capital equipment for apparel and leather goods manufacturing. Our four-pronged approach to the higher power industrial laser market provides us with a unique combination of high power, precision and compact size, which we believe will be highly desirable in existing manufacturing environments as well as those of the future. We offer kilowatt Diamond CO<sub>2</sub> lasers, Highlight direct diode lasers and MetaBEAM family of turnkey laser machine tools. We demonstrated a prototype 1kW fiber laser in fiscal 2011 to round-out our four-pronged strategy. Several factors are enabling us to gain market share in the materials processing market. First, we have developed an expanded portfolio of lasers with a broad spectrum of wavelengths, enabling optimum solutions for virtually every metal and non-metal material type. At the same time, the reliability of these products has been achieved at even higher levels, lowering the cost of ownership.

Table of Contents

## MARKET APPLICATIONS

We design, manufacture and market lasers, laser tools, precision optics and related accessories for a diverse group of customers. The following table lists our major markets and the Coherent technologies serving these markets.\*

Market	Application	Technology
Microelectronics	Flat panel display	CO <sub>2</sub>
		DPSS
		Excimer
		Ultrafast
	Advanced packaging and interconnects	Semiconductor
		CO <sub>2</sub>
		DPSS
		Ultrafast
	Semiconductor front-end	DPSS
		OPSL
		Excimer
		Ion
	Solar cell production and other emerging processes	DPSS
		Fiber
		DPSS
		Excimer
Scientific research and government programs	All scientific applications	OPSL
		Ultrafast
		DPSS
		OPSL
OEM components and instrumentation	Bio-Instrumentation	Semiconductor
		Ultrafast
		OPSL
		OPSL
	Graphic arts and display	CO <sub>2</sub>
		CO <sub>2</sub>
		DPSS
		Excimer
	Medical therapy (OEM)	OPSL
		Semiconductor
		CO <sub>2</sub>
		Fiber
Materials processing	Metal cutting, joining, surface treatment	Semiconductor
		Laser Machine Tools
		CO <sub>2</sub>
		DPSS
	Laser marking and coding	CO <sub>2</sub>
		DPSS
		CO <sub>2</sub>
		DPSS
	Non-metal cutting, drilling	Excimer
		Semiconductor
		Laser Machine Tools

\*Coherent sells its laser measurement and control products into a number of these applications.

In addition to products we provide, we invest routinely in the core technologies needed to create substantial differentiation for our products in the marketplace. Our semiconductor, crystal and fiber facilities all maintain an external customer base providing value-added solutions. We direct significant engineering efforts to produce unique

solutions targeted for internal consumption. These investments, once integrated into our broader product portfolio, provide our customers with uniquely differentiated solutions and the opportunity to substantially enhance the performance, reliability and capability of the products we offer.

Table of Contents

TECHNOLOGIES

Diode-pumped solid-state ("DPSS") lasers

DPSS lasers use semiconductor lasers to pump a crystal to produce a laser beam. By changing the energy, optical components and the types of crystals used in the laser, different wavelengths and types of laser light can be produced. The efficiency, reliability, longevity and relatively low cost of DPSS lasers make them ideally suited for a wide range of OEM and end-user applications, particularly those requiring 24-hour operations. Our DPSS systems are compact and self-contained sealed units. Unlike conventional tools and other lasers, our DPSS lasers require minimal maintenance since they do not have internal controls or components that require adjusting and cleaning to maintain consistency. They are also less affected by environmental changes in temperature and humidity, which can alter alignment and inhibit performance in many systems.

We manufacture a variety of types of DPSS lasers for different applications including semiconductor inspection; advanced packaging and interconnects; laser pumping; spectroscopy; bio-agent detection; DNA sequencing; drug discovery; flow cytometry; forensics; computer-to-plate printing; entertainment lighting (display); medical; rapid prototyping and marking, welding, engraving, cutting and drilling.

Fiber lasers

Fiber lasers use semiconductor lasers to pump a doped optical fiber to produce a laser beam. In fiscal 2008, we launched our first product based on fiber laser technology, the Talisker. This is an industrial ultrafast laser system which incorporates fiber laser technologies as a key part of the laser design. The Talisker is a new laser platform based on a fiber oscillator and crystal amplifier and is illustrative of our strategy of developing and incorporating fiber lasers where they can generate unique and cost-effective performance. We expect the Talisker platform will lead to a series of new ultrafast lasers for a number of commercial markets including microelectronics and medical. In fiscal 2009, we launched a program to address the kilowatt high power materials processing market. We have successfully demonstrated a 1 kilowatt fiber laser product based on our high power diode laser system, the Highlight 1000F. This prototype demonstrated the platform for a scalable, kilowatt class fiber laser based on a bar pumping design. Due to packaging efficiency, diode bars reduce the overall cost of a fiber laser. This platform will address the growing high power metal cutting and joining market and delivers a field serviceable solution.

Fiber laser technology continues to be an important investment and product development area and we anticipate more products that incorporate fiber as the active gain medium. In fiscal 2010, we acquired the business assets of Stocker-Yale, Inc. which included a fiber manufacturing facility capable of producing both active and passive fibers.

Gas lasers (CO<sub>2</sub>, Excimer, Ion)

The breadth of our gas laser portfolio is industry leading, encompassing CO<sub>2</sub>, excimer and ion laser technologies. Gas lasers derive their name from the use of one or more gases as a lasing medium. They collectively span an extremely diverse and useful emission range, from the very deep ultraviolet to the far infrared. This diverse range of available wavelengths, coupled with high optical output power, and an abundance of other attractive characteristics, makes gas lasers extremely useful and popular for a variety of microelectronics, scientific, medical therapeutic and materials processing applications.

Optically Pumped Semiconductor Lasers ("OPSL")

Our OPSL platform is a surface emitting semiconductor laser that is energized or pumped by a semiconductor laser. The use of optical pumping circumvents inherent power scaling limitations of electrically pumped lasers, enabling very high powered devices. A wide range of wavelengths can be achieved by varying the semiconductor materials used in the device and changing the frequency of the laser beam using techniques common in solid state lasers. The platform leverages high reliability technologies developed for telecommunications and produces a compact, rugged, high power, single-mode laser.

Our OPSL products are well suited to a wide range of applications, including the bio-instrumentation, medical therapeutics and graphic arts and display markets. In fiscal 2009, our Genesis yellow laser continued to make progress in ophthalmology and we have expanded our offerings in the area of entertainment lighting using a variety of products across the visible spectrum. We also continued to expand our ultraviolet version of the OPSL platform called the Genesis, which was developed for the bio-instrumentation market.

Semiconductor lasers

High power edge emitting semiconductor diode lasers use the same principles as widely-used CD and DVD lasers, but produce significantly higher power levels. The advantages of this type of laser include smaller size, longer life, enhanced reliability and greater efficiency. We manufacture a wide range of discrete semiconductor laser products with wavelengths ranging from 650nm to 1000nm and output powers ranging from 1W to over 100W, with highly integrated products in the kW

12

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## Table of Contents

range. These products are available in a variety of industry standard form factors including the following: bare die, packaged and fiber coupled single emitters and bars, monolithic stacks, and fully integrated modules with microprocessor controlled units that contain power supplies and active coolers.

Our semiconductor lasers are used internally as the pump lasers in DPSS, fiber and OPSL products that are manufactured by us, as well as a wide variety of external medical, OEM, military and industrial applications, including aesthetic (hair removal, cosmetic dentistry), graphic arts, counter measures, rangefinders, target designators, and plastic welding.

### Ultrafast ("UF") Lasers

Ultrafast lasers are lasers generating light pulses with durations of a few femtoseconds ( $10^{-15}$  seconds) to a few tens of picoseconds ( $10^{-11}$  seconds). These types of lasers are primarily used for scientific research and also are finding use in sophisticated materials processing applications. Ultrafast lasers are usually pumped by a green DPSS laser. UF laser oscillators generate a train of pulses at 50-100 MHz, with peak powers of tens of Kilowatts, and UF laser amplifiers generate pulses at 10-500 kHz, with peak powers up to several Terawatts.

The extremely short duration of UF laser pulses enables temporally resolving fast events like the dynamics of atoms or electrons. In addition, the high peak power enables so-called non-linear effects where several photons can be absorbed by a molecule at the same time. This type of process enables applications like multi-photon excitation microscopy or UF ablation of materials with minimal thermal damage.

### SALES AND MARKETING

We market our products domestically through a direct sales force. Our foreign sales are made principally to customers in Japan, South Korea, Germany and other European and Asia-Pacific countries. We sell internationally through direct sales personnel located in Canada, France, Germany, Italy, Japan, the Netherlands, China, South Korea, Taiwan, Singapore, Malaysia and the United Kingdom, as well as through independent representatives in certain jurisdictions around the world. Foreign sales accounted for 74% of our total net sales in fiscal 2011, 67% of our total net sales in fiscal 2010 and 66% of our total net sales in fiscal 2009. In fiscal 2011, sales to Asian markets continued to grow at a faster rate than sales to other geographic regions. Sales made to independent representatives and distributors are generally priced in U.S. dollars. A large portion of foreign sales that we make directly to customers are priced in local currencies and are therefore subject to currency exchange fluctuations. Foreign sales are also subject to other normal risks of foreign operations such as protective tariffs, export and import controls and political instability. Our products are broadly distributed and no one customer accounted for more than 10% of total net sales during fiscal 2011, 2010 or 2009.

We maintain a customer support and field service staff in major markets within the United States, Europe, Japan, China, South Korea, Taiwan and other Asia-Pacific countries. This organization works closely with customers, customer groups and independent representatives in servicing equipment, training customers to use our products and exploring additional applications of our technologies.

We typically provide parts and service warranties on our lasers, laser-based systems, optical and laser components and related accessories and services. Warranties on some of our products and services may be shorter or longer than one year. Warranty reserves, as reflected on our consolidated balance sheets, have generally been sufficient to cover product warranty repair and replacement costs. The weighted average warranty period covered is approximately 15 months.

### RESEARCH AND DEVELOPMENT

We are committed to the development of new products, as well as the improvement and refinement of existing products, including better cost-of-ownership. Our development efforts are focused on designing and developing products, services and solutions that anticipate customers' changing needs and emerging technological trends. Our efforts are also focused on identifying the areas where we believe we can make valuable contributions. Research and development expenditures for fiscal 2011 were \$81.2 million, or 10.1% of net sales compared to \$72.4 million, or 12.0% of net sales for fiscal 2010 and \$61.4 million, or 14.1% of net sales for fiscal 2009. We work closely with customers, both individually and through our sponsored seminars, to develop products to meet customer application and performance needs. In addition, we are working with leading research and educational institutions to develop new photonics based solutions.

## MANUFACTURING

### Strategies

One of our core manufacturing strategies is to tightly control our supply of key parts, components, sub-assemblies and outsourcing partners. We primarily utilize vertical integration when we have proprietary internal capabilities that are not available from external sources cost-effectively. We believe this is essential to maintain high quality products and enable rapid

13

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## Table of Contents

development and deployment of new products and technologies. We provide customers with 24-hour technical expertise and quality that is International Organization for Standardization ("ISO") certified at our principal manufacturing sites.

Committed to quality and customer satisfaction, we design and produce many of our own components and sub-assemblies in order to retain quality control. We have also outsourced certain components, sub-assemblies and finished goods where we can maintain our high quality standards while improving our cost structure. In 2007, we embarked on a plan to consolidate and close certain of our manufacturing facilities in order to reduce our footprint, realize synergies, and improve our cost structure and operating leverage. We have successfully executed this plan and closed six of our manufacturing facilities including Auburn and Lundy, California; St. Louis, Missouri; Montreal, Canada; Munich, Germany; and Tampere, Finland. The manufacturing of products from these six facilities were transferred to other Coherent facilities or outsourced to our Contract Manufacturing partners.

As part of our strategy to increase our market share and customer support in Asia as well as our continuing efforts to manage costs, we acquired the business assets of privately-held Hypertronics in the second quarter of fiscal 2011. Hypertronics' assets included an engineering and integration center in Singapore and a low cost manufacturing facility in Penang, Malaysia, and designs and manufactures laser- and vision-based tools for flat panel, storage, semiconductor and biomedical applications. We have increased the footprint of both the Singapore and Malaysia factories and plan to use these operations to serve as a nucleus for laser manufacturing and repair in Asia. This will allow us to reduce service response time and inventories, providing benefits to customers and Coherent. We have also established an International Procurement Office in Singapore and plan to increase our sourcing of materials from Asia. As this function is developed, we will be able to reduce material costs on a global basis.

We have designed and implemented proprietary manufacturing tools, equipment and techniques in an effort to provide products that differentiate us from our competitors. These proprietary manufacturing techniques are utilized in a number of our product lines including our gas laser production, crystal growth, beam alignment as well as the wafer growth for our semiconductor and optically pumped semiconductor laser product family.

Raw materials or sub-components required in the manufacturing process are generally available from several sources. However, we currently purchase several key components and materials, including exotic materials and crystals, used in the manufacture of our products from sole source or limited source suppliers. We also purchase assemblies and turnkey solutions from contract manufacturers based on our proprietary designs. We rely on our own production and design capability to manufacture and specify certain strategic components, crystals, fibers, semiconductor lasers, lasers and laser based systems.

For a discussion of the importance to our business of, and the risks attendant to sourcing, see "Risk Factors—We depend on sole source or limited source suppliers, both internal and external, for some of our key components and materials, including exotic materials, certain cutting-edge optics and crystals, in our products, which make us susceptible to supply shortages or price fluctuations that could adversely affect our business" in Item 1A.

### Operations

Our products are manufactured at our sites in Santa Clara and Sunnyvale, California; Wilsonville, Oregon; East Hanover, New Jersey; Bloomfield, Connecticut; Lübeck, Germany; Göttingen, Germany; Glasgow, Scotland; Salem, New Hampshire; Kallang Sector, Singapore; and Penang, Malaysia. In addition, we also use contract manufacturers for the production of certain assemblies and turnkey solutions. Our ion gas lasers, a portion of our DPSS lasers that are used in microelectronics, scientific research and materials processing applications, semiconductor lasers, [DDF fibers] and ultrafast scientific lasers are manufactured at our Santa Clara, California site. Our laser diode module products, laser instrumentation products, test and measurement equipment products are manufactured in Wilsonville, Oregon. We manufacture exotic crystals in East Hanover, New Jersey and both active and passive fibers are manufactured in our New Hampshire facility. Our CO<sub>2</sub> gas lasers are manufactured in Bloomfield, Connecticut. We manufacture a portion of our DPSS lasers used in microelectronics and OEM components and instrumentation applications in Lübeck, Germany. Our excimer gas laser products are manufactured in Göttingen, Germany. We manufacture the fiber-based lasers and a portion of our DPSS lasers used in microelectronics and scientific research applications in Glasgow, Scotland. Our facility in Sunnyvale, California grows the aluminum-free materials that are incorporated into our semiconductor lasers. Our laser- and vision-based tools for flat panel, storage, semiconductor

and solar applications are manufactured in Singapore with Malaysia as the low cost assembly hub.

#### INTELLECTUAL PROPERTY

We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. As of October 1, 2011, we held approximately 387 U.S. and foreign patents, which expire from 2013 through 2029 (depending on the payment of maintenance fees) and we have approximately 114 additional pending patent applications that have been filed. The issued patents cover various products in all of the major markets that we serve.

For a discussion of the importance to our business of, and the risks attendant to intellectual property rights, see "Risk

Table of Contents

Factors—Risks Associated with Our Industry, Our Business and Market Conditions" 'We may not be able to protect our proprietary technology which could adversely affect our competitive advantage' and 'We may, in the future, be subject to claims or litigation from third parties, for claims of infringement of their proprietary rights or to determine the scope and validity of our proprietary rights or the proprietary rights of competitors or other rights holders. These claims could result in costly litigation and the diversion of our technical and management personnel. Adverse resolution of litigation may harm our operating results or financial condition' in Item 1A.

**COMPETITION**

Competition in the various photonics markets in which we provide products is very intense. We compete against a number of companies including CVI Melles Griot, Cymer, Inc., GSI Group, Inc., IPG Photonics Corporation, JDS Uniphase Corporation, Newport Corporation, Rofin-Sinar Technologies, Inc., and Trumpf GmbH, as well as other smaller companies. We compete globally based on our broad product offering, reliability, cost, and performance advantages for the widest range of commercial and scientific research applications. Other considerations by our customers include warranty, global service and support and distribution.

**BACKLOG**

At fiscal 2011 year-end, our backlog of orders scheduled for shipment (generally within one year) was \$356.5 million compared to \$262.0 million at fiscal 2010 and \$164.3 million at fiscal 2009 year-ends. Orders used to compute backlog are generally cancelable without substantial penalties. Historically, the rate of cancellation experienced by us has not been significant though we cannot guarantee that cancellations will not increase in the future.

**SEASONALITY**

We have historically experienced decreased bookings and revenue in the first fiscal quarter compared to other quarters in our fiscal year due to the impact of time off and business closures at many of our customers due to year-end holidays. This historical pattern should not be considered a reliable indicator of the Company's future net sales or financial performance.

**EMPLOYEES**

As of fiscal 2011 year-end, we had 2,309 employees. Approximately 391 of our employees are involved in research and development; 1,358 of our employees are involved in operations, manufacturing, service and quality assurance; and 560 of our employees are involved in sales, order administration, marketing, finance, information technology and other administrative functions. Our success will depend in large part upon our ability to attract and retain employees. We face competition in this regard from other companies, research and academic institutions, government entities and other organizations. We consider our relations with our employees to be good.

**ACQUISITIONS**

In January 2011, we acquired all of the assets and assumed certain liabilities of Hypertronics Pte Ltd for approximately \$14.5 million in cash. Hypertronics designs and manufactures laser-and vision-based tools for flat panel, storage, semiconductor and solar applications at facilities in Singapore and Malaysia. Hypertronics has been included in our Specialty Lasers and Systems segment.

In April 2010, we acquired Beam Dynamics, Inc. for \$5.9 million in cash and \$0.3 million in deferred compensation related to an employment contract, which was recognized in expense as earned. Beam Dynamics manufactures flexible laser cutting tools for the materials processing market. Beam Dynamics has been included in our Commercial Lasers and Components segment.

In October 2009, we acquired all the assets and certain liabilities of StockerYale, Inc.'s ("StockerYale") laser module product line in Montreal and its specialty fiber product line in Salem, New Hampshire for \$15.0 million in cash. StockerYale designs, develops and manufactures low power laser modules, light emitting diode (LED) systems and specialty optical fiber products. These assets and liabilities have been included in our Commercial Lasers and Components segment.

We consummated no acquisitions in fiscal 2009.

Please refer to "Note 4. Business Combinations" of Notes to Consolidated Financial Statements under Item 15 of this Annual Report on Form 10-K for further discussion of the acquisition completed during fiscal 2011.

**RESTRUCTURINGS AND CONSOLIDATION**

During the first quarter of fiscal 2010, we acquired the assets and certain liabilities of StockerYale's laser module product line in Montreal, Canada and began to transition those activities to contract manufacturers and other Coherent facilities in

15

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## Table of Contents

Salem, Massachusetts, Wilsonville, Oregon and Sunnyvale, California. The transfer was completed in the second quarter of fiscal 2011. The fiscal 2010 severance related costs are primarily comprised of severance pay, outplacement services, medical and other related benefits for employees being terminated due to the transition of activities out of Montreal, Canada, and Tampere, Finland. The fiscal 2011 severance related costs are primarily comprised of severance pay, outplacement services, medical and other related benefits for employees being terminated due to the transition of activities out of Tampere, Finland.

During the second quarter of fiscal 2009, we announced our plans to close our facilities in Tampere, Finland and St. Louis, Missouri. The closure of our St. Louis, Missouri and Yokohama, Japan sites were completed in the fourth quarter of fiscal 2009. The closure of our Finland site was scheduled for completion by the end of fiscal 2010, but we decided to delay the closure due to increased demand for products manufactured in Finland. In the second quarter of fiscal 2011, we ceased manufacturing operations in our Finland facility and we exited the facility in the third quarter of fiscal 2011. These closure plans have resulted in charges primarily for employee termination and other exit related costs associated with a plan approved by management.

During fiscal 2008, we consolidated our German DPSS manufacturing into our Lübeck, Germany site. The transfer was completed in our fourth quarter of fiscal 2008. On October 13, 2008, we announced the consolidation of the remainder of our Munich facility into our Göttingen site. The transfer was completed in our third quarter of fiscal 2009. The consolidation and transfers have resulted in charges primarily for employee terminations, other exit related costs associated with a plan approved by management and a grant repayment liability.

In April 2008, we announced that we entered into an agreement to sell certain assets of our Auburn Optics ("Auburn") manufacturing operation to Research Electro-Optics, Inc. ("REO"), a privately held optics manufacturing and technology company. We also entered into a strategic supply agreement with REO. REO is providing optical manufacturing capabilities for us, including fabrication and coating of optical components. The transition of the optics manufacturing assets from Auburn to REO was substantially completed in second quarter of fiscal 2009. The transition has resulted in charges primarily for employee terminations, supplier qualification, moving costs for related equipment, and other exit related costs associated with a plan approved by management.

### GOVERNMENT REGULATION

#### Environmental regulation

Our operations are subject to various federal, state and local environmental protection regulations governing the use, storage, handling and disposal of hazardous materials, chemicals, various radioactive materials and certain waste products. In the United States, we are subject to the federal regulation and control of the Environmental Protection Agency. Comparable authorities are involved in other countries. We believe that compliance with federal, state and local environmental protection regulations will not have a material adverse effect on our capital expenditures, earnings and competitive and financial position.

Although we believe that our safety procedures for using, handling, storing and disposing of such materials comply with the standards required by federal and state laws and regulations, we cannot completely eliminate the risk of accidental contamination or injury from these materials. In the event of such an accident involving such materials, we could be liable for damages and such liability could exceed the amount of our liability insurance coverage and the resources of our business.

We may face potentially increasing complexity in our product designs and procurement operations as we adjust to requirements relating to the materials composition of products entering specific markets. Such regulations went into effect in the European Union ("EU") in 2006, and China in 2007. We could face significant costs and liabilities in connection with product take-back legislation. Beginning in 2006, the EU Waste Electrical and Electronic Equipment Directive made producers of electrical goods financially responsible for specified collection, recycling, treatment and disposal of past and future covered products. In addition, the EU has added the Registration, Evaluation and Authorization of Chemicals Regulation, otherwise known as the REACH Regulation, which further regulates substances and products imported, manufactured or sold within the EU. Similar laws are now pending in various jurisdictions around the world, including the United States.

We further discuss the impact of environmental regulation under "Risk Factors—Compliance or the failure to comply with current and future environmental regulations could cause us significant expense" in Item 1A.

SEGMENT INFORMATION

We are organized into two operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). This segmentation reflects the go-to-market strategies for various products and markets. While both segments work to deliver cost-effective photonics solutions, CLC focuses on higher volume products that are offered in set configurations. The product architectures are designed for easy exchange at the point of use such that product service and repairs are based upon advanced replacement and depot (i.e., factory) repair. CLC's primary markets include OEM components



Table of Contents

and instrumentation and materials processing. SLS develops and manufacturers configurable, advanced-performance products largely serving the microelectronics and scientific research markets. The size and complexity of many of the SLS products require service to be performed at the customer site by factory-trained field service engineers.

We have identified CLC and SLS as operating segments for which discrete financial information was available. Both units have dedicated engineering, manufacturing, product business management and product line management functions. A small portion of our outside revenue is attributable to projects and recently developed products for which a segment has not yet been determined. The associated direct and indirect costs are presented in the category of Corporate and other, along with other corporate costs.

Effective as of the beginning of the first quarter of fiscal 2009, in order to align all of our diode-pumped solid state ("DPSS") technology into the same reportable operating segment, management moved the DPSS Germany and Crystal product families from the CLC segment into the SLS segment. This allows for leverage and efficiencies in many parts of the business. Crystal is primarily an internal supplier that supports the DPSS product family. This concentrates all DPSS product families in the SLS segment effective as of the first quarter of fiscal 2009. All reporting has been aligned to reflect the revised reportable operating segments (CLC and SLS).

**FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES**

Financial information relating to foreign and domestic operations for fiscal years 2011, 2010 and 2009, is set forth in Note 18, "Segment and Geographic Information" of our Notes to Consolidated Financial Statements under Item 15 of this Annual Report on Form 10-K.

Table of Contents

ITEM 1A. RISK FACTORS

You should carefully consider the followings risks when considering an investment in our Common Stock. These risks could materially affect our business, results of operations or financial condition, cause the trading price of our Common Stock to decline materially or cause our actual results to differ materially from those expected or those expressed in any forward-looking statements made by or on behalf of Coherent. These risks are not exclusive, and additional risks to which we are subject include, but are not limited to, the factors mentioned under “Forward-Looking Statements” and the risk of our businesses described elsewhere in this Annual Report on Form 10-K. Additionally, these risks and uncertainties described herein are not the only ones facing us. Other events that we do not currently anticipate or that we currently deem immaterial also may affect our business, results of operations or financial conditions.

BUSINESS ENVIRONMENT AND INDUSTRY TRENDS

Risks Associated with Our Industry, Our Business and Market Conditions

Our operating results, including net sales, net income (loss) and adjusted EBITDA percentage in dollars and as a percentage of net sales, as well as our stock price have varied in the past, and our future operating results will continue to be subject to quarterly and annual fluctuations based upon numerous factors, including those discussed in this Item 1A and throughout this report. Our stock price will continue to be subject to daily variations as well. Our future operating results and stock price may not follow any past trends or meet our guidance and expectations.

Our net sales and operating results, such as adjusted EBITDA percentage, net income (loss) and operating expenses, and our stock price have varied in the past and may vary significantly from quarter to quarter and from year to year in the future. We believe a number of factors, many of which are outside of our control, could cause these variations and make them difficult to predict, including:

• general economic uncertainties in the macroeconomic and local economies facing us, our customers and the markets we serve;

• access to applicable credit markets by us, our customers and their end customers;

• fluctuations in demand for our products or downturns in the industries that we serve;

• the ability of our suppliers, both internal and external, to produce and deliver components and parts, including sole or limited source components, in a timely manner, in the quantity, quality and prices desired;

• the timing of conversion of booking to revenue;

• timing or cancellation of customer orders and shipment scheduling;

• fluctuations in our product mix;

• the ability of our customers' suppliers to provide sufficient material to support our customers' products;

• currency fluctuations and stability, in particular the Euro;

• commodity pricing;

introductions of new products and product enhancements by our competitors, entry of new competitors into our markets, pricing pressures and other competitive factors;

our ability to develop, introduce, manufacture and ship new and enhanced products in a timely manner without defects;

our ability to manage our capacity and that of our suppliers;

our increased reliance on domestic and foreign contract manufacturing;

the rate of market acceptance of our new products;

18

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Table of Contents

- the ability of our customers to pay for our products;
- expenses associated with acquisition-related activities;
- seasonal sales trends;
- delays or reductions in customer purchases of our products in anticipation of the introduction of new and enhanced products by us or our competitors;
- our ability to control expenses;
- the level of capital spending of our customers;
- potential excess and/or obsolescence of our inventory;
- costs and timing of adhering to current and developing governmental regulations and reviews relating to our products and business;
- costs related to acquisitions of technology or businesses;
- impairment of goodwill, intangible assets and other long term assets;
- our ability to meet our expectations and forecasts and those of public market analysts and investors;
- costs and expenses from litigation;
- the availability of research funding by governments with regard to our customers in the scientific business, such as universities;
- continued government spending on defense-related projects where we are a subcontractor;
- government support of the alternative energy industries, such as solar;
- maintenance of supply relating to products sold to the government on terms which we would prefer not to accept;
- changes in policy, interpretations, or challenges to the allowability of costs incurred under government cost accounting standards;
- damage to our reputation as a result of coverage in social media, Internet blogs or other media outlets;
- managing our and other parties' compliance with contracts in multiple languages and jurisdictions;
- managing our internal and third party sales representatives and distributors, including compliance with all applicable laws;
- costs associated with designing around or payment of licensing fees associated with issued patents in our fields of business;

the future impact of legislation, rulemaking, and changes in accounting, tax, defense procurement, or export policies;  
and

distraction of management related to acquisition or divestment activities.

In addition, we often recognize a substantial portion of our sales in the last month of our fiscal quarters. Our expenses for any given quarter are typically based on expected sales and if sales are below expectations in any given quarter, the adverse impact of the shortfall on our operating results may be magnified by our inability to adjust spending quickly enough to compensate for the shortfall. We also base our manufacturing on our forecasted product mix for the quarter. If the actual product mix varies significantly from our forecast, we may not be able to fill some orders during that quarter, which would

Table of Contents

result in delays in the shipment of our products. Accordingly, variations in timing of sales, particularly for our higher priced, higher margin products, can cause significant fluctuations in quarterly operating results.

Due to these and other factors, we believe that quarter-to-quarter and year-to-year comparisons of our historical operating results may not be meaningful. You should not rely on our results for any quarter or year as an indication of our future performance. Our operating results in future quarters and years may be below public market analysts' or investors' expectations, which would likely cause the price of our stock to fall. In addition, over the past several years, the stock market has experienced extreme price and volume fluctuations that have affected the stock prices of many technology companies. There has not always been a direct correlation between this volatility and the performance of particular companies subject to these stock price fluctuations. Further, over the last twelve months, equity markets around the world have significantly fluctuated across most sectors. These factors, as well as general economic and political conditions or investors' concerns regarding the credibility of corporate financial statements, may have a material adverse effect on the market price of our stock in the future.

We are exposed to risks associated with worldwide economic conditions and related uncertainties.

Volatility and disruption in the capital and credit markets, depressed consumer confidence, negative economic conditions, volatile corporate profits and reduced capital spending could negatively impact demand for our products. In particular, it is difficult to develop and implement strategy, sustainable business models and efficient operations, as well as effectively manage supply chain relationships in the face of such conditions including uncertainty regarding the ability of some of our suppliers to continue operations and provide us with uninterrupted supply flow. Our ability to maintain our research and development investments in our broad product offerings may be adversely impacted in the event that our sales decline and do not increase in the future. Spending and the timing thereof by consumers and businesses has a significant impact on our results and, where such spending is delayed or canceled, it could cause a material negative impact on our operating results. The current global economic conditions remain uncertain and challenging. Weakness in our end markets could negatively impact our revenue, gross margin and operating expenses, and consequently have a material adverse effect on our business, financial condition and results of operations.

The recent financial turmoil affecting the banking system and financial markets and the possibility that additional financial institutions may consolidate or go out of business have resulted in continued tightening in the credit markets, and lower levels of liquidity in some financial markets. There could be a number of follow-on effects from the tightened credit environment on our business, including the insolvency of key suppliers or their inability to obtain credit to finance development and/or manufacture products resulting in product delays; inability of customers to obtain credit to finance purchases of our products and/or customer insolvencies; and failure of financial institutions negatively impacting our treasury functions. In the event our customers are unable to obtain credit or otherwise pay for our shipped products it could significantly impact our ability to collect on our outstanding accounts receivable. Other income and expense also could vary materially from expectations depending on gains or losses realized on the sale or exchange of financial instruments; impairment charges resulting from revaluations of debt and equity securities and other investments; interest rates; cash balances; and changes in fair value of derivative instruments. Volatility in the financial markets and any overall economic uncertainty increase the risk that the actual amounts realized in the future on our financial instruments could differ significantly from the fair values currently assigned to them. Uncertainty about current global economic conditions could also continue to increase the volatility of our stock price.

In addition, political and social turmoil related to international conflicts, terrorist acts and civil unrest may put further pressure on economic conditions in the United States and abroad. Unstable economic, political and social conditions make it difficult for our customers, our suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition and results of operations could suffer. Additionally, unstable economic conditions can provide significant pressures and burdens on individuals, which could cause them to engage in inappropriate business conduct. See "Part II, Item 9A. CONTROLS AND PROCEDURES-Inherent Limitations over

Internal Control.”

Our cash and cash equivalents and short-term investments are managed through various banks around the world and volatility in the capital and credit market conditions could cause financial institutions to fail or materially harm service levels provided by such banks, both of which could have an adverse affect on our ability to timely access funds.

World capital and credit markets have been and may continue to experience volatility and disruption. In some cases, the markets have exerted downward pressure on stock prices and credit capacity for certain issuers, as well as pressured the solvency of some financial institutions. These financial institutions, including banks, have had difficulty timely performing regular services and in some cases have failed or otherwise been largely taken over by governments. We maintain our cash, cash equivalents and short-term investments with a number of financial institutions around the world. Should some or all of these financial institutions fail or otherwise be unable to timely perform requested services, we would likely have a limited

20

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Table of Contents

ability to timely access our cash deposited with such institutions, or, in extreme circumstances the failure of such institutions could cause us to be unable to access cash for the foreseeable future. If we are unable to quickly access our funds when we need them, we may need to increase the use of our existing credit lines or access more expensive credit, if available. If we are unable to access our cash or if we access existing or additional credit or are unable to access additional credit, it could have a negative impact on our operations, including our reported net income.

We are exposed to credit risk and fluctuations in the market values of our investment portfolio.

Although we have not recognized any material losses on our cash, cash equivalents and short-term investments, future declines in their market values could have a material adverse effect on our financial condition and operating results. Given the global nature of our business, we have investments both domestically and internationally. There has recently been growing pressure on the creditworthiness of sovereign nations, particularly in Europe where a majority of our cash, cash equivalents and short-term investments are invested, which results in corresponding pressure on the valuation of the securities issued by such nations. Additionally, our overall investment portfolio is often concentrated in certificates of deposit and money market funds. We maintain a mix of government-issued securities. Credit ratings and pricing of these investments can be negatively impacted by liquidity, credit deterioration or losses, financial results, or other factors. Additionally, liquidity issues or political actions by sovereign nations could result in decreased values for our investments in certain government securities. As a result, the value or liquidity of our cash, cash equivalents and short-term investments could decline or become materially impaired, which could have a material adverse effect on our financial condition and operating results. See “Item 7A. Quantitative and Qualitative Disclosures about Market Risk.”

We depend on sole source or limited source suppliers, both internal and external, for some of our key components and materials, including exotic materials, certain cutting-edge optics and crystals, in our products, which make us susceptible to supply shortages or price fluctuations that could adversely affect our business.

We currently purchase several key components and materials used in the manufacture of our products from sole source or limited source suppliers, both internal and external. Our failure to timely receive these key components and materials, such as the large optics used in our flat panel display manufacturing applications, could cause delays in the shipment of our products. Some of these suppliers are relatively small private companies that may discontinue their operations at any time and which may be particularly susceptible to prevailing economic conditions. Some of our suppliers are located in regions which may be susceptible to natural disasters, such as the recent flooding in Thailand and the earthquake, tsunami and resulting nuclear disaster in Japan. We typically purchase our components and materials through purchase orders or agreed upon terms and conditions and we do not have guaranteed supply arrangements with many of these suppliers. We may fail to obtain these supplies in a timely manner in the future. We may experience difficulty identifying alternative sources of supply for certain components used in our products. We would experience further delays while identifying, evaluating and testing the products of these potential alternative suppliers. Furthermore, financial or other difficulties faced by these suppliers or significant changes in demand for these components or materials could limit their availability. We continue to consolidate our supply base and move supplier locations. When we transition locations we may increase our inventory of such products as a “safety stock” during the transition, which may cause the amount of inventory reflected on our balance sheet to increase. Additionally, many of our customers rely on sole source suppliers. In the event of a disruption of supply, orders from our customers could decrease or be delayed. Any interruption or delay in the supply of any of these components or materials, or the inability to obtain these components and materials from alternate sources at acceptable prices and within a reasonable amount of time, or our failure to properly manage these moves, would impair our ability to meet scheduled product deliveries to our customers and could cause customers to cancel orders.

We have historically relied exclusively on our own production capability to manufacture certain strategic components, crystals, semiconductor lasers, lasers and laser-based systems. Because we manufacture, package and test these



components, products and systems at our own facilities, and such components, products and systems are not readily available from other sources, any interruption in manufacturing would adversely affect our business. In addition, our failure to achieve adequate manufacturing yields of these items at our manufacturing facilities may materially and adversely affect our operating results and financial condition.

Our future success depends on our ability to increase our sales volumes and decrease our costs to offset potential declines in the average selling prices (“ASPs”) of our products and, if we are unable to realize greater sales volumes and lower costs, our operating results may suffer.

Our ability to increase our sales volume and our future success depends on the continued growth of the markets for lasers, laser systems and related accessories, as well as our ability to identify, in advance, emerging markets for laser-based systems. We cannot assure you that we will be able to successfully identify, on a timely basis, new high-growth markets in the future.

Table of Contents

Moreover, we cannot assure you that new markets will develop for our products or our customers' products, or that our technology or pricing will enable such markets to develop. Future demand for our products is uncertain and will depend to a great degree on continued technological development and the introduction of new or enhanced products. If this does not continue, sales of our products may decline and our business will be harmed.

We have in the past experienced decreases in the ASPs of some of our products. As competing products become more widely available, the ASPs of our products may decrease. If we are unable to offset any decrease in our ASPs by increasing our sales volumes, our net sales will decline. In addition, to maintain our gross margins, we must continue to reduce the cost of manufacturing our products while maintaining their high quality. From time to time, our products, like many complex technological products, may fail in greater frequency than anticipated. This can lead to further charges, which can result in higher costs, lower gross margins and lower operating results. Furthermore, as ASPs of our current products decline, we must develop and introduce new products and product enhancements with higher margins. If we cannot maintain our gross margins, our operating results could be seriously harmed, particularly if the ASPs of our products decrease significantly.

Our future success depends on our ability to develop and successfully introduce new and enhanced products that meet the needs of our customers.

Our current products address a broad range of commercial and scientific research applications in the photonics markets. We cannot assure you that the market for these applications will continue to generate significant or consistent demand for our products. Demand for our products could be significantly diminished by disrupting technologies or products that replace them or render them obsolete. Furthermore, the new and enhanced products generally continue to be smaller in size and have lower ASPs, and therefore, we have to sell more units to maintain revenue levels. Accordingly, we must continue to invest in research and development in order to develop competitive products.

Our future success depends on our ability to anticipate our customers' needs and develop products that address those needs. Introduction of new products and product enhancements will require that we effectively transfer production processes from research and development to manufacturing and coordinate our efforts with those of our suppliers to achieve volume production rapidly. If we fail to transfer production processes effectively, develop product enhancements or introduce new products in sufficient quantities to meet the needs of our customers as scheduled, our net sales may be reduced and our business may be harmed.

We face risks associated with our foreign operations and sales that could harm our financial condition and results of operations.

For fiscal 2011, fiscal 2010 and fiscal 2009, 74%, 67% and 66%, respectively, of our net sales were derived from customers outside of the United States. We anticipate that foreign sales, particularly in Asia, will continue to account for a significant portion of our revenues in the foreseeable future.

A global economic slowdown or a natural disaster could have a negative effect on various foreign markets in which we operate, such as the earthquake, tsunami and resulting nuclear disaster during fiscal 2011 in Japan and the recent flooding in Thailand. Such a slowdown may cause us to reduce our presence in certain countries, which may negatively affect the overall level of business in such countries. Our foreign sales are primarily through our direct sales force. Additionally, some foreign sales are made through foreign distributors and resellers. Our foreign operations and sales are subject to a number of risks, including:

• longer accounts receivable collection periods;

• the impact of recessions and other economic conditions in economies outside the United States;

- unexpected changes in regulatory requirements;
- certification requirements;
- environmental regulations;
- reduced protection for intellectual property rights in some countries;
- potentially adverse tax consequences;

Table of Contents

- political and economic instability;
- import/export regulations, tariffs and trade barriers;
- compliance with applicable United States and foreign anti-corruption laws;
- cultural and management differences;
- preference for locally produced products; and
- shipping and other logistics complications.

Our business could also be impacted by international conflicts, terrorist and military activity, civil unrest and pandemic illness which could cause a slowdown in customer orders or cause customer order cancellations.

We are also subject to the risks of fluctuating foreign currency exchange rates, which could materially adversely affect the sales price of our products in foreign markets, as well as the costs and expenses of our foreign subsidiaries. While we use forward exchange contracts and other risk management techniques to hedge our foreign currency exposure, we remain exposed to the economic risks of foreign currency fluctuations.

We may not be able to protect our proprietary technology which could adversely affect our competitive advantage.

Maintenance of intellectual property rights and the protection thereof is important to our business. We rely on a combination of patent, copyright, trademark and trade secret laws and restrictions on disclosure to protect our intellectual property rights. We cannot assure you that our patent applications will be approved, that any patents that may be issued will protect our intellectual property or that any issued patents will not be challenged by third parties. Other parties may independently develop similar or competing technology or design around any patents that may be issued to us. We cannot be certain that the steps we have taken will prevent the misappropriation of our intellectual property, particularly in foreign countries where the laws may not protect our proprietary rights as fully as in the United States. Further, we may be required to enforce our intellectual property or other proprietary rights through litigation, which, regardless of success, could result in substantial costs and diversion of management's attention. Additionally, there may be existing patents of which we are unaware that could be pertinent to our business and it is not possible for us to know whether there are patent applications pending that our products might infringe upon since these applications are often not publicly available until a patent is issued or published.

We may, in the future, be subject to claims or litigation from third parties, for claims of infringement of their proprietary rights or to determine the scope and validity of our proprietary rights or the proprietary rights of competitors or other rights holders. These claims could result in costly litigation and the diversion of our technical and management personnel. Adverse resolution of litigation may harm our operating results or financial condition.

In recent years, there has been significant litigation in the United States involving patents and other intellectual property rights. This has been seen in our industry, for example in the recently concluded patent-related litigation between IMRA America, Inc. and IPG Photonics Corporation. From time to time, like many other technology companies, we have received communications from other parties asserting the existence of patent rights, copyrights, trademark rights or other intellectual property rights which such third parties believe may cover certain of our products, processes, technologies or information. In the future, we may be a party to litigation to protect our intellectual property or as a result of an alleged infringement of others' intellectual property whether through direct claims or by way of indemnification claims of our customers, as, in some cases, we contractually agree to indemnify our customers against third-party infringement claims relating to our products. These claims and any resulting lawsuit,

if successful, could subject us to significant liability for damages or invalidation of our proprietary rights. These lawsuits, regardless of their success, would likely be time-consuming and expensive to resolve and would divert management time and attention. Any potential intellectual property litigation could also force us to do one or more of the following:

- stop manufacturing, selling or using our products that use the infringed intellectual property;
- obtain from the owner of the infringed intellectual property right a license to sell or use the relevant technology, although such license may not be available on reasonable terms, or at all; or
- redesign the products that use the technology.

Table of Contents

If we are forced to take any of these actions or are otherwise a party to lawsuits of this nature, we may incur significant losses for which we do not have insurance and our business may be seriously harmed. We do not have insurance to cover potential claims of this type.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under accounting principles generally accepted in the United States, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or other intangible assets may not be recoverable include declines in our stock price and market capitalization or future cash flows projections. We recorded a material charge during the first quarter of fiscal 2009 related to the impairment of goodwill in our CLC operating segment. A decline in our stock price, or any other adverse change in market conditions, particularly if such change has the effect of changing one of the critical assumptions or estimates we used to calculate the estimated fair value of our reporting units, could result in a change to the estimation of fair value that could result in an impairment charge. Any such material charges, whether related to goodwill or purchased intangible assets, may have a material negative impact on our financial and operating results.

We are exposed to lawsuits in the normal course of business which could have a material adverse effect on our business, operating results, or financial condition.

We are exposed to lawsuits in the normal course of our business, including product liability claims, if personal injury, death or commercial losses occur from the use of our products. While we typically maintain business insurance, including directors' and officers' policies, litigation can be expensive, lengthy, and disruptive to normal business operations, including the potential impact of indemnification obligations for individuals named in any such lawsuits. We may not, however, be able to secure insurance coverage on terms acceptable to us in the future. Moreover, the results of complex legal proceedings are difficult to predict. An unfavorable resolution of a particular lawsuit, including a recall or redesign of products if ultimately determined to be defective, could have a material adverse effect on our business, operating results, or financial condition.

We depend on skilled personnel to operate our business effectively in a rapidly changing market, and if we are unable to retain existing or hire additional personnel when needed, our ability to develop and sell our products could be harmed.

Our ability to continue to attract and retain highly skilled personnel will be a critical factor in determining whether we will be successful in the future. Recruiting and retaining highly skilled personnel in certain functions continues to be difficult. At certain locations where we operate, the cost of living is extremely high and it may be difficult to retain key employees and management at a reasonable cost. We may not be successful in attracting, assimilating or retaining qualified personnel to fulfill our current or future needs. Our failure to attract additional employees and retain our existing employees could adversely affect our growth and our business.

Our future success depends upon the continued services of our executive officers and other key engineering, sales, marketing, manufacturing and support personnel, any of whom may leave, which could harm our business and our results of operations.

The long sales cycles for our products may cause us to incur significant expenses without offsetting revenues.

Customers often view the purchase of our products as a significant and strategic decision. As a result, customers typically expend significant effort in evaluating, testing and qualifying our products before making a decision to purchase them, resulting in a lengthy initial sales cycle. While our customers are evaluating our products and before

they place an order with us, we may incur substantial sales and marketing and research and development expenses to customize our products to the customer's needs. We may also expend significant management efforts, increase manufacturing capacity and order long lead-time components or materials prior to receiving an order. Even after this evaluation process, a potential customer may not purchase our products. As a result, these long sales cycles may cause us to incur significant expenses without ever receiving revenue to offset such expenses.

The markets in which we sell our products are intensely competitive and increased competition could cause reduced sales levels, reduced gross margins or the loss of market share.

Competition in the various photonics markets in which we provide products is very intense. We compete against a number of large public and private companies, including CVI Melles Griot, Cymer, Inc., GSI Group, Inc., IPG Photonics Corporation, JDS Uniphase Corporation, Newport Corporation, Rofin-Sinar Technologies, Inc., and Trumpf GmbH, as well as other smaller

Table of Contents

companies. Some of our competitors are large companies that have significant financial, technical, marketing and other resources. These competitors may be able to devote greater resources than we can to the development, promotion, sale and support of their products. Some of our competitors are much better positioned than we are to acquire other companies in order to gain new technologies or products that may displace our product lines. Any of these acquisitions could give our competitors a strategic advantage. Any business combinations or mergers among our competitors, forming larger companies with greater resources, could result in increased competition, price reductions, reduced margins or loss of market share, any of which could materially and adversely affect our business, results of operations and financial condition.

Additional competitors may enter the markets in which we serve, both foreign and domestic, and we are likely to compete with new companies in the future. We may encounter potential customers that, due to existing relationships with our competitors, are committed to the products offered by these competitors. Further, our current or potential customers may determine to develop and produce products for their own use which are competitive to our products. As a result of the foregoing factors, we expect that competitive pressures may result in price reductions, reduced margins, loss of sales and loss of market share. In addition, in markets where there are a limited number of customers, competition is particularly intense.

Some of our laser systems are complex in design and may contain defects that are not detected until deployed by our customers, which could increase our costs and reduce our revenues.

Laser systems are inherently complex in design and require ongoing regular maintenance. The manufacture of our lasers, laser products and systems involves a highly complex and precise process. As a result of the technological complexity of our products, changes in our or our suppliers' manufacturing processes or the inadvertent use of defective materials by us or our suppliers could result in a material adverse effect on our ability to achieve acceptable manufacturing yields and product reliability. To the extent that we do not achieve and maintain our projected yields or product reliability, our business, operating results, financial condition and customer relationships would be adversely affected. We provide warranties on a majority of our product sales, and reserves for estimated warranty costs are recorded during the period of sale. The determination of such reserves requires us to make estimates of failure rates and expected costs to repair or replace the products under warranty. We typically establish warranty reserves based on historical warranty costs for each product line. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods which could have an adverse effect on our results of operations.

Our customers may discover defects in our products after the products have been fully deployed and operated under the end user's peak stress conditions. In addition, some of our products are combined with products from other vendors, which may contain defects. As a result, should problems occur, it may be difficult to identify the source of the problem. If we are unable to identify and fix defects or other problems, we could experience, among other things:

- loss of customers;
- increased costs of product returns and warranty expenses;
- damage to our brand reputation;
- failure to attract new customers or achieve market acceptance;
- diversion of development and engineering resources; and
-



legal actions by our customers and/or their end users.

The occurrence of any one or more of the foregoing factors could seriously harm our business, financial condition and results of operations.

If we fail to accurately forecast component and material requirements for our products, we could incur additional costs and incur significant delays in shipments, which could result in a loss of customers.

We use rolling forecasts based on anticipated product orders and material requirements planning systems to determine our product requirements. It is very important that we accurately predict both the demand for our products and the lead times required to obtain the necessary components and materials. We depend on our suppliers for most of our product components and materials. Lead times for components and materials that we order vary significantly and depend on factors including the specific supplier requirements, the size of the order, contract terms and current market demand for components. For substantial increases in our sales levels of certain products, some of our suppliers may need at least nine months lead-time. If we

25

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Table of Contents

overestimate our component and material requirements, we may have excess inventory, which would increase our costs. If we underestimate our component and material requirements, we may have inadequate inventory, which could interrupt and delay delivery of our products to our customers. Any of these occurrences would negatively impact our net sales, business or operating results.

Our increased reliance on contract manufacturing and other outsourcing may adversely impact our financial results and operations due to our decreased control over the performance and timing of certain aspects of our manufacturing.

Our manufacturing strategy includes partnering with contract manufacturers to outsource non-core subassemblies and less complex turnkey products, including some performed at international sites located in Asia and Eastern Europe. Additionally, we have outsourced the manufacture of certain of our optics components to a third party. Our ability to resume internal manufacturing operations for certain products and components in a timely manner may be eliminated. The cost, quality, performance and availability of contract manufacturing operations are and will be essential to the successful production and sale of many of our products. Our financial condition or results of operation could be adversely impacted if any contract manufacturer or other supplier is unable for any reason, including as a result of the impact of worldwide economic conditions, to meet our cost, quality, performance, and availability standards. We may not be able to provide contract manufacturers with product volumes that are high enough to achieve sufficient cost savings. If shipments fall below forecasted levels, we may incur increased costs or be required to take ownership of the inventory. Also, our ability to control the quality of products produced by contract manufacturers may be limited and quality issues may not be resolved in a timely manner, which could adversely impact our financial condition or results of operations.

If we fail to effectively manage our growth or, alternatively, our spending during downturns, our business could be disrupted, which could harm our operating results.

The growth in sales, combined with the challenges of managing geographically dispersed operations, can place a significant strain on our management systems and resources, and our anticipated growth in future operations could continue to place such a strain. The failure to effectively manage our growth could disrupt our business and harm our operating results. Our ability to successfully offer our products and implement our business plan in evolving markets requires an effective planning and management process. In economic downturns, we must effectively manage our spending and operations to ensure our competitive position during the downturn, as well as our future opportunities when the economy improves, remain intact. The failure to effectively manage our spending and operations could disrupt our business and harm our operating results.

Historically, acquisitions have been an important element of our strategy. However, we may not find suitable acquisition candidates in the future and we may not be able to successfully integrate and manage acquired businesses. Any acquisitions we make could disrupt our business and harm our financial condition.

We have in the past made strategic acquisitions of other corporations and entities, as well as asset purchases, and we continue to evaluate potential strategic acquisitions of complementary companies, products and technologies. In the event of any future acquisitions, we could:

• issue stock that would dilute our current stockholders' percentage ownership;

• pay cash that would decrease our working capital;

• incur debt;

• assume liabilities; or

incur expenses related to impairment of goodwill and amortization.

Acquisitions also involve numerous risks, including:

problems combining the acquired operations, systems, technologies or products;

an inability to realize expected operating efficiencies or product integration benefits;

difficulties in coordinating and integrating geographically separated personnel, organizations, systems and facilities;

Table of Contents

• difficulties integrating business cultures;

• unanticipated costs or liabilities, including the costs associated with improving the internal controls of the acquired company;

• diversion of management's attention from our core businesses;

• adverse effects on existing business relationships with suppliers and customers;

• potential loss of key employees, particularly those of the purchased organizations;

• incurring unforeseen obligations or liabilities in connection with acquisitions; and

the failure to complete acquisitions even after signing definitive agreements which, among other things, would result in the expensing of potentially significant professional fees and other charges in the period in which the acquisition or negotiations are terminated.

We cannot assure you that we will be able to successfully identify appropriate acquisition candidates, to integrate any businesses, products, technologies or personnel that we might acquire in the future or achieve the anticipated benefits of such transactions, which may harm our business.

We use standard laboratory and manufacturing materials that could be considered hazardous and we could be liable for any damage or liability resulting from accidental environmental contamination or injury.

Although most of our products do not incorporate hazardous or toxic materials and chemicals, some of the gases used in our excimer lasers and some of the liquid dyes used in some of our scientific laser products are highly toxic. In addition, our operations involve the use of standard laboratory and manufacturing materials that could be considered hazardous. Also, if a facility fire were to occur at our Sunnyvale, California site and were to spread to a reactor used to grow semiconductor wafers, it could release highly toxic emissions. We believe that our safety procedures for handling and disposing of such materials comply with all federal, state and offshore regulations and standards. However, the risk of accidental environmental contamination or injury from such materials cannot be entirely eliminated. In the event of such an accident involving such materials, we could be liable for damages and such liability could exceed the amount of our liability insurance coverage and the resources of our business which could have an adverse effect on our financial results or our business as a whole.

Compliance or the failure to comply with current and future environmental regulations could cause us significant expense.

We are subject to a variety of federal, state, local and foreign environmental regulations relating to the use, storage, discharge and disposal of hazardous chemicals used during our manufacturing process or requiring design changes or recycling of products we manufacture. If we fail to comply with any present and future regulations, we could be subject to future liabilities, the suspension of production or a prohibition on the sale of products we manufacture. In addition, such regulations could restrict our ability to expand our facilities or could require us to acquire costly equipment, or to incur other significant expenses to comply with environmental regulations, including expenses associated with the recall of any non-compliant product and the management of historical waste.

From time to time new regulations are enacted, and it is difficult to anticipate how such regulations will be implemented and enforced. We continue to evaluate the necessary steps for compliance with regulations as they are enacted. These regulations include, for example, the Registration, Evaluation, Authorization and Restriction of

Chemical substances (“REACH”), the Restriction on the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive (“RoHS”) and the Waste Electrical and Electronic Equipment Directive (“WEEE”) enacted in the European Union which regulate the use of certain hazardous substances in, and require the collection, reuse and recycling of waste from, certain products we manufacture. This and similar legislation that has been or is in the process of being enacted in Japan, China, Korea and various states of the United States may require us to re-design our products to ensure compliance with the applicable standards, for example by requiring the use of different types of materials. These redesigns or alternative materials may detrimentally impact the performance of our products, add greater testing lead-times for product introductions or have other similar effects. We believe we comply with all such legislation where our products are sold and we will continue to monitor these laws and the regulations being adopted under them to determine our responsibilities. In addition, we are monitoring legislation relating to the reduction of carbon emissions from industrial operations to determine whether we may be required to incur any additional material costs or expenses associated with our operations. We are not currently aware of any such material

Table of Contents

costs or expenses. Our failure to comply with any of the foregoing regulatory requirements or contractual obligations could result in our being directly or indirectly liable for costs, fines or penalties and third-party claims, and could jeopardize our ability to conduct business in the United States and foreign countries.

Our operations would be seriously harmed if our logistics or facilities or those of our suppliers, our customers' suppliers or our contract manufacturers were to experience catastrophic loss.

Our operations, logistics and facilities and those of our suppliers and contract manufacturers could be subject to a catastrophic loss from fire, flood, earthquake, volcanic eruption, work stoppages, power outages, acts of war, pandemic illnesses, energy shortages, theft of assets, other natural disasters or terrorist activity, such as the recent flooding in Thailand. A substantial portion of our research and development activities, manufacturing, our corporate headquarters and other critical business operations are located near major earthquake faults in Santa Clara, California, an area with a history of seismic events. Any such loss or detrimental impact to any of our operations, logistics or facilities could disrupt our operations, delay production, shipments and revenue and result in large expenses to repair or replace the facility. While we have obtained insurance to cover most potential losses, after reviewing the costs and limitations associated with earthquake insurance, we have decided not to procure such insurance. We believe that this decision is consistent with decisions reached by numerous other companies located nearby. We cannot assure you that our existing insurance coverage will be adequate against all other possible losses.

Difficulties with our enterprise resource planning ("ERP") system and other parts of our global information technology system could harm our business and results of operation. If our network security measures are breached and unauthorized access is obtained to a customer's data or our data or our information technology systems, we may incur significant legal and financial exposure and liabilities.

Like many modern multinational corporations, we maintain a global information technology system, including software products licensed from third parties. Any system, network or Internet failures, misuse by system users, the hacking into or disruption caused by the unauthorized access by third parties or loss of license rights could disrupt our ability to timely and accurately manufacture and ship products or to report our financial information in compliance with the timelines mandated by the Securities and Exchange Commission. Any such failure, misuse, hacking, disruptions or loss would likely cause a diversion of management's attention from the underlying business and could harm our operations. In addition, a significant failure of our global information technology system could adversely affect our ability to complete an evaluation of our internal controls and attestation activities pursuant to Section 404 of the Sarbanes-Oxley Act of 2002.

As part of our day-to-day business, we store our data and certain data about our customers in our global information technology system. While our system is designed with access security, if a third party gain unauthorized access to our data, including any regarding our customers, such security breach could expose us to a risk of loss of this information, loss of business, litigation and possible liability. These security measures may be breached as a result of third-party action, including intentional misconduct by computer hackers, employee error, malfeasance or otherwise.

Additionally, third parties may attempt to fraudulently induce employees or customers into disclosing sensitive information such as user names, passwords or other information in order to gain access to our customers' data or our data, including our intellectual property and other confidential business information, or our information technology systems. Because the techniques used to obtain unauthorized access, or to sabotage systems, change frequently and generally are not recognized until launched against a target, we may be unable to anticipate these techniques or to implement adequate preventative measures. Any security breach could result in a loss of confidence by our customers, damage our reputation, disrupt our business, lead to legal liability and negatively impact our future sales.

Changes in tax rates, tax liabilities or tax accounting rules could affect future results.

As a global company, we are subject to taxation in the United States and various other countries and jurisdictions. Significant judgment is required to determine worldwide tax liabilities. Our future tax rates could be affected by changes in the composition of earnings in countries or states with differing tax rates, changes in the valuation of our

deferred tax assets and liabilities, or changes in the tax laws. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service (“IRS”) and other tax authorities. From time to time the United States, foreign and state governments make substantive changes to tax rules and the application of rules to companies, including the recent announcement from the United States government potentially impacting our ability to defer taxes on international earnings. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates are reasonable, there can be no assurance that any final determination will not be materially different than the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our operating results and financial condition.

Compliance with changing regulation of corporate governance and public disclosure may create uncertainty

Table of Contents

regarding compliance matters.

Federal securities laws, rules and regulations, as well as the rules and regulations of self-regulatory organizations such as NASDAQ and the NYSE, require companies to maintain extensive corporate governance measures, impose comprehensive reporting and disclosure requirements, set strict independence and financial expertise standards for audit and other committee members and impose civil and criminal penalties for companies and their chief executive officers, chief financial officers and directors for securities law violations. These laws, rules and regulations have increased and will continue to increase the scope, complexity and cost of our corporate governance, reporting and disclosure practices, which could harm our results of operations and divert management's attention from business operations. Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty regarding compliance matters. New or changed laws, regulations and standards are subject to varying interpretations in many cases. As a result, their application in practice may evolve over time. We are committed to maintaining high standards of ethics, corporate governance and public disclosure. Complying with evolving interpretations of new or changed legal requirements may cause us to incur higher costs as we revise current practices, policies and procedures, and may divert management time and attention from revenue generating to compliance activities. If our efforts to comply with new or changed laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, our reputation may also be harmed.

Governmental regulations, including duties, affecting the import or export of products could negatively affect our revenues.

The United States and many foreign governments impose tariffs and duties on the import and export of products, including some of those which we sell. In particular, given our worldwide operations, we pay duties on certain products when they are imported into the United States for repair work as well as on certain of our products which are manufactured by our foreign subsidiaries. These products can be subject to a duty on the product value. Additionally, the United States and various foreign governments have imposed tariffs, controls, export license requirements and restrictions on the import or export of some technologies, especially encryption technology. From time to time, government agencies have proposed additional regulation of encryption technology, such as requiring the escrow and governmental recovery of private encryption keys. Governmental regulation of encryption technology and regulation of imports or exports, or our failure to obtain required import or export approval for our products, could harm our international and domestic sales and adversely affect our revenues. From time to time our duty calculations and payments are audited by government agencies.

In addition, compliance with the directives of the Directorate of Defense Trade Controls (“DDTC”) may result in substantial expenses and diversion of management. Any failure to adequately address the directives of DDTC could result in civil fines or suspension or loss of our export privileges, any of which could have a material adverse effect on our business or financial position, results of operations, or cash flows.

Our market is unpredictable and characterized by rapid technological changes and evolving standards demanding a significant investment in research and development, and, if we fail to address changing market conditions, our business and operating results will be harmed.

The photonics industry is characterized by extensive research and development, rapid technological change, frequent new product introductions, changes in customer requirements and evolving industry standards. Because this industry is subject to rapid change, it is difficult to predict its potential size or future growth rate. Our success in generating revenues in this industry will depend on, among other things:

- maintaining and enhancing our relationships with our customers;



the education of potential end-user customers about the benefits of lasers and laser systems; and  
our ability to accurately predict and develop our products to meet industry standards.

For our fiscal years 2011, 2010 and 2009, our research and development costs were \$81.2 million (10.1% of net sales), \$72.4 million (12.0% of net sales) and \$61.4 million (14.1% of net sales), respectively. We cannot assure you that our expenditures for research and development will result in the introduction of new products or, if such products are introduced, that those products will achieve sufficient market acceptance or to generate sales to offset the costs of development. Our failure to address rapid technological changes in our markets could adversely affect our business and results of operations.

We participate in the microelectronics market, which requires significant research and development expenses to develop and maintain products and a failure to achieve market acceptance for our products could have a significant

Table of Contents

negative impact on our business and results of operations.

The microelectronics market is characterized by rapid technological change, frequent product introductions, the volatility of product supply and demand (particularly in the semiconductor industry), changing customer requirements and evolving industry standards. The nature of this market requires significant research and development expenses to participate, with substantial resources invested in advance of material sales of our products to our customers in this market. In the event either our customers' or our products fail to gain market acceptance, or the microelectronics market fails to grow, it would likely have a significant negative effect on our business and results of operations.

Continued volatility in the semiconductor manufacturing industry could adversely affect our business, financial condition and results of operations.

A portion of our net sales in the microelectronics market depend on the demand for our products by semiconductor equipment companies. The semiconductor market has historically been characterized by sudden and severe cyclical variations in product supply and demand, which have often severely affected the demand for semiconductor manufacturing equipment, including laser-based tools and systems. The timing, severity and duration of these market cycles are difficult to predict, and we may not be able to respond effectively to these cycles. The continuing uncertainty in this market severely limits our ability to predict our business prospects or financial results in this market.

During industry downturns, our revenues from this market may decline suddenly and significantly. Our ability to rapidly and effectively reduce our cost structure in response to such downturns is limited by the fixed nature of many of our expenses in the near term and by our need to continue our investment in next-generation product technology and to support and service our products. In addition, due to the relatively long manufacturing lead times for some of the systems and subsystems we sell to this market, we may incur expenditures or purchase raw materials or components for products we cannot sell. Accordingly, downturns in the semiconductor capital equipment market may materially harm our operating results. Conversely, when upturns in this market occur, we must be able to rapidly and effectively increase our manufacturing capacity to meet increases in customer demand that may be extremely rapid, and if we fail to do so we may lose business to our competitors and our relationships with our customers may be harmed.

Failure to maintain effective internal controls may cause a loss of investor confidence in the reliability of our financial statements or to cause us to delay filing our periodic reports with the SEC and adversely affect our stock price.

The SEC, as directed by Section 404 of the Sarbanes-Oxley Act of 2002, adopted rules requiring public companies to include a report of management on internal control over financial reporting in their annual reports on Form 10-K that contain an assessment by management of the effectiveness of the Company's internal control over financial reporting. In addition, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Although we test our internal control over financial reporting in order to ensure compliance with the Section 404 requirements, our failure to maintain adequate internal controls over financial reporting could result in an adverse reaction in the financial marketplace due to a loss of investor confidence in the reliability of our financial statements or a delay in our ability to timely file our periodic reports with the SEC, which ultimately could negatively impact our stock price.

Provisions of our charter documents and Delaware law, and our Change-of-Control Severance Plan may have anti-takeover effects that could prevent or delay a change in control.

Provisions of our certificate of incorporation and bylaws may discourage, delay or prevent a merger or acquisition or make removal of incumbent directors or officers more difficult. These provisions may discourage takeover attempts

and bids for our common stock at a premium over the market price. These provisions include:

• the ability of our Board of Directors to alter our bylaws without stockholder approval;

• limiting the ability of stockholders to call special meetings; and

• establishing advance notice requirements for nominations for election to our Board of Directors or for proposing matters that can be acted on by stockholders at stockholder meetings.

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a publicly-held Delaware corporation from engaging in a merger, asset or stock sale or other transaction with an interested stockholder for a period of three years following the date such person became an interested stockholder, unless prior approval of our board of directors is obtained or as otherwise provided. These provisions of Delaware law also may discourage, delay or prevent someone from

Table of Contents

acquiring or merging with us without obtaining the prior approval of our board of directors, which may cause the market price of our common stock to decline. In addition, we have adopted a change of control severance plan, which provides for the payment of a cash severance benefit to each eligible employee based on the employee's position. If a change of control occurs, our successor or acquirer will be required to assume and agree to perform all of our obligations under the change of control severance plan which may discourage potential acquirors or result in a lower stock price.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

Table of Contents

## ITEM 2. PROPERTIES

Our corporate headquarters is located in Santa Clara, California. At fiscal 2011 year-end, our primary locations were as follows (all square footage is approximate) (unless otherwise indicated, each property is utilized jointly by our two segments):

	Description	Use	Term
Santa Clara, CA	8.5 acres of land, 200,000 square foot building	Corporate headquarters, manufacturing, R&D	Owned
Santa Clara, CA (3)	90,120 square foot building	Office, manufacturing	Leased through July 2020
Sunnyvale, CA (1)(3)	24,000 square foot building	Office, manufacturing, R&D	Leased through December 2018
Bloomfield, CT (1)	72,915 square foot building	Office, manufacturing, R&D	Leased through December 2012
East Hanover, NJ (2)	30,000 square foot building	Office, manufacturing, R&D	Leased through October 2014
Wilsonville, OR (1)	41,250 square foot building	Office, manufacturing, R&D	Leased through December 2018
Salem, NH(1)(3)	44,153 square foot building	Office, manufacturing, R&D	Leased through October 2019
Dieburg, Germany	31,306 square foot building	Office	Leased through December 2020
Göttingen, Germany(2)	7.6 acres of land, several buildings totaling 128,900 square feet	Office, manufacturing, R&D	Owned
Lübeck, Germany (2)	47,638 square foot building	Office, manufacturing, R&D	Leased through December 2012
Lübeck, Germany (2)	22,583 square foot building	Office, manufacturing, R&D	Leased through December 2012 with option to purchase building
Lübeck, Germany (2)(3)	6,779 square foot building	Manufacturing	Leased through December 2018
Tokyo, Japan	17,602 square foot building	Office	Leased through June 2012
Glasgow, Scotland (2)	2 acres of land, 30,000 square foot building	Office, manufacturing, R&D	Owned
Kallang Sector, Singapore (2)	31,894 square foot building	Office, manufacturing, R&D	Leased through March 2016
Penang, Malaysia (2)	13,455 square foot building	Office, manufacturing, R&D	Leased through August 2014

(1) This facility is utilized primarily by our CLC operating segment.

(2) This facility is utilized primarily by our SLS operating segment.

(3) Portions of this property are not fully utilized.

We maintain other sales and service offices under varying leases expiring from 2012 through 2019 in the United States, Japan, South Korea, China, Thailand, Taiwan, Germany, France, Italy, the United Kingdom and the Netherlands.

We consider our facilities to be both suitable and adequate to provide for current and near term requirements. We plan to renew



Table of Contents

leases on buildings as they expire.

ITEM 3. LEGAL PROCEEDINGS

We are subject to legal claims and litigation arising in the ordinary course of business, such as product liability, employment or intellectual property claims, including, but not limited to, the matters described below. The outcome of any such matters is currently not determinable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position or results of operations, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

Derivative Lawsuits

Between February 15, 2007 and March 2, 2007, three purported shareholder derivative lawsuits were filed in the United States District Court for the Northern District of California against certain of the Company's current and former officers and directors. The Company is named as a nominal defendant. The complaints generally allege that the defendants breached their fiduciary duties and violated the securities laws in connection with the granting of stock options, the accounting treatment for such grants, the issuance of allegedly misleading public statements and stock sales by certain of the individual defendants. On May 30, 2007, these lawsuits were consolidated under the caption *In re Coherent, Inc. Shareholder Derivative Litigation*, Lead Case No. C-07-0955-JF (N.D. Cal.). On June 25, 2007, plaintiffs filed an amended consolidated complaint. The consolidated complaint asserts causes of action for alleged violations of federal securities laws, violations of California securities laws, breaches of fiduciary duty and/or aiding and abetting breaches of fiduciary duty, abuse of control, gross mismanagement, constructive fraud, corporate waste, unjust enrichment, insider selling and misappropriation of information. The consolidated complaint seeks, among other relief, disgorgement and damages in an unspecified amount, an accounting, rescission of allegedly improper stock option grants, punitive damages and attorneys' fees and costs.

The Company's Board of Directors appointed a Special Litigation Committee ("SLC") comprised of independent director Sandeep Vij to investigate and evaluate the claims asserted in the derivative litigation and to determine what action(s) should be taken with respect to the derivative litigation. On September 8, 2009, Coherent, Inc., by and through the SLC, plaintiffs, and certain of Coherent's former and current officers and directors filed with the court a Stipulation of Settlement reflecting the terms of a settlement that would resolve all claims alleged in the consolidated complaint. The terms of the settlement include a financial benefit to Coherent of over \$6 million, which is comprised of a cash payment of \$5.25 million to the Company and the waiver by certain former officers and directors of potential claims relating to expired stock options valued at \$762,305. The settlement terms also include the implementation and/or agreement to maintain certain corporate governance changes, and a payment by the Company to plaintiffs' counsel of \$3 million in attorneys' fees and expenses.

On September 14, 2009, the United States District Court for the Northern District of California issued an order granting preliminary approval of the settlement. On November 20, 2009, the court held a hearing for final approval of the settlement, and on November 24, 2009, the court entered an Order and Final Judgment, which approved the settlement and dismissed the action with prejudice. Coherent received the cash payment of \$2.25 million on December 11, 2009.

Income Tax Audits

We are subject to taxation and file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. For U.S. federal income tax purposes, all years prior to 2005 are closed. The IRS audited the research and development credits generated in the years 1999 through 2001 and carried forward to future years. We received a notice of proposed adjustment ("NOPA") from the IRS in October 2008 to decrease the amount of research and development credits generated in years 2000 and 2001. We signed a Closing Agreement with the IRS which allows additional research and development credits for the years 2000 and 2001, respectively. During the fourth quarter of fiscal 2011, the Joint Committee on Taxation approved this agreement. We provided adequate tax reserves for adjustments to these research and development credits for the years 2000 and 2001. This settlement resulted in the closure of U.S. federal statutes of limitations for years through 2004 and we released net unrecognized tax benefits under ASC 740-10 and related interest of approximately \$9.7 million that affected the Company's effective tax rate for fiscal year 2011. In our major state jurisdictions and our major foreign jurisdictions, the years subsequent to 2000 and

2004, respectively, currently remain open and could be subject to examination by the taxing authorities. We believe that we have provided adequate reserves for any adjustments that may be determined by the tax authorities. Management believes that it has adequately provided for any adjustments that may result from tax examinations. The Company regularly engages in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. It is reasonably possible that certain federal, foreign and state tax matters may be concluded in the next 12 months. The Company estimates that the net unrecognized tax benefits and related interest at October 1, 2011 could be reduced by approximately \$1.0 million to \$2.0 million in the next 12 months.



Table of Contents

ITEM 4. (REMOVED AND RESERVED)

34

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Table of Contents

## PART II

## ITEM 5. MARKET FOR THE REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is quoted on the NASDAQ Stock Market under the symbol "COHR." The following table sets forth the high and low sales prices for each quarterly period during the past two fiscal years as reported on the Nasdaq Global Select Market.

	Fiscal		2010	
	2011		High	Low
First quarter	\$46.85	\$39.27	\$30.20	\$23.33
Second quarter	\$62.29	\$46.01	\$33.02	\$26.35
Third quarter	\$63.76	\$49.54	\$38.24	\$31.92
Fourth quarter	\$59.61	\$38.92	\$40.20	\$32.83

The number of stockholders of record as of November 25, 2011 was 1,010. No cash dividends have been declared or paid since Coherent was founded and we have no present intention to declare or pay cash dividends.

There were no sales of unregistered securities in fiscal 2011.

Stock repurchases during the three months ended October 1, 2011 were as follows:

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value that May Yet Be Purchased Under the Plans or Programs (1) (2)
July 3, 2011 - July 30, 2011	—	\$—	—	\$33,645,000
July 31, 2011 - August 27, 2011	738,809	45.54	738,809	50,000,000
August 28, 2011 - October 1, 2011	586,200	42.67	586,200	24,985,000
Total	1,325,009	\$44.27	1,325,009	\$24,985,000

(1) On January 26, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$75.0 million of our common stock. The timing and size of any purchases will be subject to market conditions. The program was completed during the fourth quarter of fiscal 2011.

(2) On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The program is authorized for 12 months from the date of authorization. The timing and size of any purchases will be subject to market conditions.

Table of Contents**COMPANY STOCK PRICE PERFORMANCE**

The following graph shows a five-year comparison of cumulative total stockholder return, calculated on a dividend reinvestment basis and based on a \$100 investment, from September 30, 2006 through October 1, 2011 comparing the return on our common stock with the Russell 2000 Index, the Standard and Poors Technology Index and the Nasdaq Composite Index. No dividends have been declared or paid on our common stock during such period. The stock price performance shown on the following graph is not necessarily indicative of future price performance.

**COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN AMONG COHERENT, INC.,  
THE RUSSELL 2000 INDEX, THE S&P TECHNOLOGY INDEX AND  
THE NASDAQ COMPOSITE INDEX.**

Comparison of Cumulative Five Year Total Return

Company Name / Index	Base Period	INDEXED RETURNS				
		Years Ending				
	9/30/2006	9/29/2007	9/27/2008	10/3/2009	10/2/2010	10/1/2011
Coherent, Inc.	100	92.56	100.95	66.27	115.98	123.95
Russell 2000 Index	100	112.34	99.63	83.44	98.96	95.02
S&P Technology Index	100	123.33	94.50	94.96	108.43	112.72
NASDAQ Composite Index	100	121.84	92.48	96.08	108.39	110.99

The information contained above under the caption "Company Stock Price Performance" shall not be deemed to be "soliciting material" or to be "filed" with the SEC, nor will such information be incorporated by reference into any future SEC filing except to the extent that we specifically incorporate it by reference into such filing.

Table of Contents

## ITEM 6. SELECTED FINANCIAL DATA

The information set forth below is not necessarily indicative of results of future operations and should be read in conjunction with Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations" and the Consolidated Financial Statements and Notes to Consolidated Financial Statements.

We derived the selected consolidated financial data as of fiscal 2011 and 2010 year-end and for fiscal 2011, 2010 and 2009 from our audited consolidated financial statements, and accompanying notes, contained in this annual report.

The consolidated statements of operations data for fiscal 2008 and 2007 and the consolidated balance sheet data as of fiscal 2009, 2008 and 2007 year-end are derived from our consolidated financial statements which are not included in this report.

Consolidated financial data	Fiscal 2011(1)	Fiscal 2010(2)	Fiscal 2009(3)	Fiscal 2008(4)	Fiscal 2007(5)
	(in thousands, except per share data)				
Net sales	\$ 802,834	\$ 605,067	\$ 435,882	\$ 599,262	\$ 601,153
Gross profit	\$ 350,822	\$ 260,811	\$ 161,110	\$ 251,906	\$ 250,008
Net income(loss)	\$ 93,238	\$ 36,916	\$ (35,319)	\$ 23,403	\$ 15,951
Net income (loss) per share(6):					
Basic	\$ 3.74	\$ 1.49	\$ (1.45)	\$ 0.85	\$ 0.51
Diluted	\$ 3.66	\$ 1.47	\$ (1.45)	\$ 0.83	\$ 0.50
Shares used in computation(6):					
Basic	24,924	24,718	24,281	27,505	31,398
Diluted	25,464	25,091	24,281	28,054	32,024
Total assets	\$ 843,266	\$ 803,104	\$ 753,604	\$ 806,383	\$ 947,600
Long-term obligations	\$ 19	\$ 33	\$ 6	\$ 15	\$ 21
Other long-term liabilities	\$ 62,841	\$ 79,688	\$ 91,685	\$ 94,606	\$ 47,848
Stockholders' equity	\$ 618,001	\$ 591,463	\$ 575,571	\$ 598,435	\$ 770,986

(1) Includes a gain of \$6.1 million after tax related to the dissolution of our Finland operations, a \$9.7 million tax benefit from the release of tax reserves and related interest as a result of an IRS settlement and the closure of open tax years and a \$1.5 million tax charge due to an increase in valuation allowances against deferred tax assets.

(2) Includes restructuring expenses of \$5.8 million after tax primarily related to the closure of our Finland site and the consolidation of our Montreal, Canada site under the management of our Wilsonville, Oregon site and a net benefit after tax of \$1.4 million related to a receipt from the settlement of litigation resulting from our internal stock option investigation.

(3) Includes \$19.3 million in after-tax expense related to the impairment of goodwill, restructuring expenses of \$11.5 million after tax primarily related to the consolidation of our Munich site into our Gottingen and Lubeck, Germany sites and our Finland site, the exit of our Auburn, California facility, the exit of our St. Louis, Missouri facility and headcount reductions due to the evolving global economic conditions, \$0.8 million in after-tax costs related to our stock option investigation and litigation and a tax charge of \$3.8 million composed of the impact of a recently enacted change in state tax law and a valuation allowance in one of our European subsidiaries.

(4) Includes \$5.5 million in after-tax costs related to our stock option investigation and litigation, restructuring expenses of \$3.9 million after-tax related to the exit of our Auburn, California facility, the consolidation of our German DPSS manufacturing into one location in Germany and headcount reductions due to the evolving global economic situation, and a tax charge of \$1.4 million in connection with a dividend from one of our European subsidiaries.

(5) Includes a \$12.6 million loss on our sale of our Auburn campus in Auburn, California, \$7.0 million in after-tax costs related to our stock option investigation and litigation, a \$2.6 million after-tax charge to write off unamortized capitalized deferred issuance costs associated with our repayment of our convertible subordinated notes, a charge of \$2.2 million for in-process research and development ("IPR&D") related to our purchase of

Nuvonyx, \$0.2 million after-tax costs related to the termination of the Excel merger agreement, a \$3.6 million capital gain on the sale of our Condensa building in Santa Clara, California, and a \$0.7 million after-tax gain from the sale of substantially all of the net assets of our Coherent Imaging Optics Limited (COIL) subsidiary to CVI Laser.

Table of Contents

See Note 2, "Significant Accounting Policies" in our Notes to Consolidated Financial Statements under Item 15 of (6) this Annual Report on Form 10-K for an explanation of the determination of the number of shares used in computing net income (loss) per share.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and related notes included in Item 8, "Financial Statements and Supplementary Data" in this annual report. This discussion contains forward-looking statements, which involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including but not limited to those discussed in Item 1A, "Risk Factors" and elsewhere in this annual report. Please see the discussion of forward-looking statements at the beginning of this annual report under "Special Note Regarding Forward-Looking Statements."

### KEY PERFORMANCE INDICATORS

The following is a summary of some of the quantitative performance indicators (as defined below) that may be used to assess our results of operations and financial condition:

	Fiscal			
	2011	2010	2009	
	(Dollars in thousands)			
Bookings	\$ 895,017	\$ 695,954	\$ 419,239	
Book-to-bill ratio	1.11	1.15	0.96	
Net Sales—Commercial Lasers and Components	\$ 283,098	\$ 208,691	\$ 125,619	
Net Sales—Specialty Lasers and Systems	\$ 519,736	\$ 396,276	\$ 310,163	
Gross Profit as a Percentage of Net Sales—Commercial Lasers and Components	41.1	% 36.2	% 26.4	%
Gross Profit as a Percentage of Net Sales—Specialty Lasers and Systems	45.4	% 47.0	% 41.4	%
Research and Development Expenses as a Percentage of Net Sales	10.1	% 12.0	% 14.1	%
Income (Loss) Before Income Taxes	\$ 123,829	\$ 57,979	\$ (35,855 )	
Net Cash Provided by Operating Activities	\$ 86,676	\$ 78,813	\$ 39,049	
Days Sales Outstanding in Receivables	63.2	65.6	61.3	
Fourth Quarter Inventory Turns	3.1	3.4	2.9	
Capital Spending as a Percentage of Net Sales	4.6	% 2.5	% 5.0	%

Definitions and analysis of these performance indicators are as follows:

#### Bookings and Book-to-Bill Ratio

Bookings represent orders expected to be shipped within 12 months and services to be provided pursuant to service contracts. While we generally have not experienced a significant rate of cancellation, bookings are generally cancelable by our customers without substantial penalty and, therefore, we cannot assure all bookings will be converted to net sales.

The book-to-bill ratio is calculated as annual bookings divided by annual net sales. This is an indication of the strength of our business but can sometimes be impacted by a single large order. A ratio greater than 1.0 indicating that demand for our products is greater than what we supply in the year.

Fiscal 2011 bookings reached another new record for the Company. Bookings increased 28.6% from fiscal 2010, with a significant increase in the microelectronics market. Bookings increases by market compared to fiscal 2010 were microelectronics (62%), materials processing (22%) and scientific (3%), partially offset by a decrease in the OEM components and instrumentation market (3%). Although fiscal 2011 bookings were a record, bookings in the fourth quarter of fiscal 2011 decreased from the third quarter of fiscal 2011, with a fourth quarter book-to-bill of 0.94, primarily due to timing of large orders in the microelectronics market.

Fiscal 2010 bookings, at the time, represented a new record. Bookings increased 66.0% from fiscal 2009, with increases in all four markets led by a significant increase in the microelectronics market. Bookings increases by

market compared to

38

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## Table of Contents

fiscal 2009 were microelectronics (140%), materials processing (69%), OEM components and instrumentation (51%) and scientific (10%).

### Microelectronics

Record-setting bookings in fiscal 2011 increased 62% from fiscal 2010 and the book-to-bill ratio for the year was 1.25.

Flat panel display orders for fiscal 2011 increased significantly from fiscal 2010, including \$44 million of a record \$77 million order we received for the current and next generation flat panel display annealing lasers and optics. The remaining \$33 million of this order will be booked in fiscal 2012 in accordance with our internal policies. Fulfillment of this order, combined with projected long-term service requirements from the installed base and new system backlog, requires a series of investments by Coherent including our facility expansion in Göttingen and the opening of a service center in South Korea, both of which will become operational in fiscal 2012. Orders in the fourth quarter of fiscal 2011 were significantly lower than in the third quarter of fiscal 2011, accounting for much of the decrease in the Company's bookings, primarily due to the timing of orders. We expect this market to be strong in fiscal 2012 as the primary market driver, the proliferation of smartphones and tablets, remains intact. Given our robust backlog, new orders for annealing systems will be predominately scheduled for delivery in fiscal 2013, in part due to customer facility readiness to receive and install new equipment.

Advanced packaging (API) orders increased significantly for the full fiscal year, but decreased in the fourth quarter of fiscal 2011, due to lower consumer confidence, pressure from reduced semiconductor capital equipment spending and tightening of credit in China. Although it is harder to predict the timing of the recovery in this market due to our customer diversity, the long-term outlook is positive. We anticipate that market growth will come from increased adoption of smartphones and tablets as well as the emergence of ultrabooks (a hybrid tablet/notebook) and from the 3D packaging market. We are positioning our product portfolio to address more demanding packaging requirements by increasing the performance of our CO<sub>2</sub> and pulsed UV laser products. In addition, several new OEM integrators serving the API market have selected Coherent as their laser vendor.

Although orders from semiconductor capital equipment OEMs increased for the full fiscal year, they slowed in the fourth quarter of fiscal 2011. Recent market data indicates that the market is expected to rebound at some point in calendar 2012. We continue to engage with customers to develop solutions for the 20 nm node deployment and this market has not been affected.

### OEM Components and Instrumentation

Bookings in fiscal 2011 decreased 3% from fiscal 2010 and the book-to-bill ratio for the year was 0.97. Although bookings declined for the full fiscal year primarily due to lower stimulus funding, orders in the second half of fiscal 2011 were strong due to the timing of certain large orders and strength in the medical OEM market.

The medical OEM market has been trending upward as consumer spending improved in fiscal 2011, led by growth in eyecare and aesthetic procedures. We believe that in the longer term, the ophthalmic market is the growth engine for the medical market. Rising life expectancies will increase the occurrence of various eye conditions such as cataracts and laser intervention remains the preferred treatment option for many of these conditions. We believe that our current R&D programs will yield products that provide patient, procedure and cost benefits.

Orders in the instrumentation market declined in fiscal 2011 as customers readjusted inventory levels following the expiration of stimulus funds. We believe the long-term prospects for this market are strong, as broader access to health care in the U.S and abroad requires the health care system to develop more and better early detection methods to provide cost-effective care. Customers are increasingly seeking multiple wavelength solutions to support a variety of test protocols on a single tool. Our OBIS™ product family rises to these challenges and we are working with OEM customers for current and future designs.

The defense business remains under budget pressure globally as proposed spending cuts have influenced buying patterns, which are skewed towards a number of low volume orders.

### Materials Processing

Although annual bookings increased 22% from fiscal 2010 and fiscal 2011's book-to-bill ratio was 1.06, bookings in the fourth quarter of fiscal 2011 decreased from the record-setting third quarter of fiscal 2011 due primarily to the timing of several larger orders and the tightening of credit in China.



Marking and engraving remains our largest submarket with demand driven by product identification in the consumer electronics, automotive, medical and packaging markets. Although there is opportunity for strong long-term growth in this market, the market may fluctuate from quarter to quarter in fiscal 2012 as consumer spending and credit flows in China are resolved.

Like marking and engraving, both lasers sales, predominantly CO<sub>2</sub>, and sales of laser manufacturing tools into the textile

## Table of Contents

and paper cutting markets were strong in fiscal 2011. In fiscal 2012, we expect to diversify both product lines to address more applications including the introduction of the first of these product additions at the Fabtech tradeshow in November 2011. In addition, our upcoming kilowatt class fiber laser will address metal cutting and we expect first revenue shipments in mid-fiscal 2012.

### Scientific and Government Programs

Record-setting bookings in fiscal 2011 increased 3% from fiscal 2010 and the book-to-bill ratio for the year was 0.98. Orders were a record in both fiscal 2011 and the fourth quarter of fiscal 2011 even as the stimulus funding ended, indicating market share gains. In the U.S., demand was in-line with expectations for the post-American Recovery and Investment Act of 2009 period. The Asia-Pacific region delivered record bookings in the fourth quarter of fiscal 2011, led by research investments in China. Europe was unseasonably strong, led by continued investments in Germany. Fiscal 2011 orders were strong for high-end ultrafast amplifiers used in a variety of applications including attosecond physics, EUV time-resolved studies and multidimensional spectroscopy. The biological imaging market was also strong, but below the record levels fueled by stimulus spending. We introduced a new, hands-free laser called the Vitara™ that produces very short pulses. This laser is a key building block to enabling higher performance and better resolution in a wide range of research applications. It can be used as a stand-alone device or in conjunction with amplifier systems. We believe the Vitara™ will quickly become the standard for short pulse oscillators.

### Net Sales

Net sales include sales of lasers, laser tools, related accessories and service contracts. Net sales for fiscal 2011 increased 32.7% from fiscal 2010. Net sales for fiscal 2010 increased 38.8% from fiscal 2009. For a description of the reasons for changes in net sales refer to the "Results of Operations" section below.

### Gross Profit as a Percentage of Net Sales

Gross profit as a percentage of net sales ("gross profit percentage") is calculated as gross profit for the period divided by net sales for the period. Gross profit percentage for CLC increased to 41.1% in fiscal 2011 from 36.2% in fiscal 2010 and from 26.4% in fiscal 2009. Gross profit percentage for SLS decreased to 45.4% in fiscal 2011 from 47.0% in fiscal 2010 and increased from 41.4% in fiscal 2009. For a description of the reasons for changes in gross profit refer to the "Results of Operations" section below.

### Research and Development as a Percentage of Net Sales

Research and development as a percentage of net sales ("R&D percentage") is calculated as research and development expense for the period divided by net sales for the period. Management considers R&D percentage to be an important indicator in managing our business as investing in new technologies is a key to future growth. R&D percentage decreased to 10.1% from 12.0% in fiscal 2010 and 14.1% in fiscal 2009. R&D percentage decreased primarily due to higher sales volumes, partially offset by higher project development spending. For a description of the reasons for changes in R&D spending refer to the "Results of Operations" section below.

### Net Cash Provided by Operating Activities

Net cash provided by operating activities shown on our Consolidated Statements of Cash Flows primarily represents the excess of cash collected from billings to our customers and other receipts over cash paid to our vendors for expenses and inventory purchases to run our business. We believe that cash flows from operations is an important performance indicator because cash generation over the long term is essential to maintaining a healthy business and providing funds to help fuel growth. For a description of the reasons for changes in Net Cash Provided by Operating Activities refer to the "Liquidity and Capital Resources" section below.

### Days Sales Outstanding in Receivables

We calculate days sales outstanding ("DSO") in receivables as net receivables at the end of the period divided by net sales during the period and then multiplied by the number of days in the period, using 360 days for years. DSO in receivables indicates how well we are managing our collection of receivables, with lower DSO in receivables resulting in higher working capital availability. The more money we have tied up in receivables, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our DSO in receivables for fiscal 2011 decreased 2.4 days from fiscal 2010 to 63.2 days. The decrease in DSO in receivables is primarily due to the higher mix of revenue and related receivables in Asia (excluding Japan) where the DSO is lower than the average DSO for the Company taken as a whole as well as due to the improved DSO in Europe

due to faster collections.  
Annualized Inventory Turns

40

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## Table of Contents

We calculate annualized inventory turns as cost of sales during the fourth quarter annualized and divided by net inventories at the end of the fourth quarter. This indicates how well we are managing our inventory levels, with higher inventory turns resulting in more working capital availability and a higher return on our investments in inventory. The more money we have tied up in inventory, the less money we have available for research and development, acquisitions, expansion, marketing and other activities to grow our business. Our annualized inventory turns for fiscal 2011 decreased 0.3 days from fiscal 2010 to 3.1 days. The deterioration in inventory turns is primarily due to increased inventory levels to support increased volumes.

### Capital Spending as a Percentage of Net Sales

Capital spending as a percentage of net sales ("capital spending percentage") is calculated as capital expenditures for the period divided by net sales for the period. Capital spending percentage indicates the extent to which we are expanding or improving our operations, including investments in technology. Management monitors capital spending levels as this assists management in measuring our cash flows, net of capital expenditures. Our capital spending percentage increased from 2.5% in fiscal 2010 to 4.6% in fiscal 2011 and decreased from 5.0% in fiscal 2009 to 2.5% in fiscal 2010. The fiscal 2011 increase was primarily due to purchases of production-related assets and building improvements to support higher sales volumes. The fiscal 2010 decrease was primarily due to higher sales volumes in fiscal 2010 net of fiscal 2009 spending for the purchase of assets in support of a more effective business model for our semiconductor business and building investments related to our facilities consolidation and relocation programs. We expect capital spending for fiscal 2012 to be approximately 4.5% of net sales including substantial investments in Germany and South Korea.

## SIGNIFICANT EVENTS

### Goodwill Impairment

During the first quarter of fiscal 2009 our stock price declined substantially, which combined with expectations of declines in forecasted operating results due to the slowdown in the global economy, led us to conclude that a triggering event for review for potential goodwill impairment had occurred. Accordingly, as of December 27, 2008, we performed an interim goodwill impairment evaluation. The performance of this test is a two-step process. Management reviewed the results of the Step 1 analysis and concluded that a Step 2 analysis was required only for the CLC reporting unit. Our analysis indicated that the entire balance of the goodwill in the CLC reporting unit at that date was impaired and we recorded a non-cash goodwill impairment charge of \$19.3 million in the first quarter of fiscal 2009. The estimated fair value of our SLS reporting unit exceeded its carrying value so no further impairment analysis was required for this reporting unit.

### Restructuring Activities

In fiscal 2009, we initiated the planning phase of a multiyear project, with a targeted completion date of September 2010, to exit our epitaxial growth facility in Tampere, Finland and establish enhanced capabilities in Sunnyvale, California. We decided to delay the closure due to increased demand for our products manufactured in Finland and we exited the facility in the third quarter of fiscal 2011. In the second quarter of fiscal 2011, we ceased manufacturing operations in our Finland facility and recognized a \$6.1 million gain, primarily in other income (expense), due to a non-recurring translation adjustment related to the dissolution of our Finland operations. We completed the consolidation of the remainder of our Munich facility into our Göttingen site during third quarter of fiscal 2009. During the second quarter of fiscal 2009, we substantially completed the transition of our optics manufacturing assets from Auburn, California to REO, and announced that we would be exiting our facility in St. Louis, Missouri. We completed the exit from St. Louis, Missouri in the fourth quarter of fiscal 2009.

### Acquisitions

On October 13, 2009, we acquired all the assets and certain liabilities of StockerYale's laser module product line in Montreal and its specialty fiber product line in Salem, New Hampshire for \$15.0 million in cash. StockerYale designs, develops and manufactures low power laser modules, light emitting diode (LED) systems and specialty optical fiber products. These assets and liabilities have been included in our Commercial Lasers and Components segment. On April 29, 2010, we acquired Beam Dynamics for \$6.25 million, excluding transaction fees. Beam Dynamics manufactures flexible laser cutting tools for the materials processing market. These assets and liabilities have been included in our Commercial Lasers and Components segment.

On January 5, 2011, we acquired all the assets and assumed certain liabilities of Hypertronics Pte Ltd for \$14.5 million, excluding transaction fees. Hypertronics designs and manufactures laser- and vision-based tools for flat panel, storage, semiconductor and solar applications at facilities in Singapore and Malaysia. These assets and liabilities have been included in our Specialty Lasers and Systems segment.

Table of Contents

## Stock Repurchases

In the second half of fiscal 2010, we repurchased and retired 1,195,829 shares of outstanding common stock for a total of \$43.3 million, excluding expenses.

In March 2011, we repurchased and retired 454,682 shares of outstanding common stock at an average price of \$59.00 per share for a total of \$26.8 million, excluding expenses. During the third and fourth quarters of fiscal 2011, we repurchased and retired 1,024,409 shares of outstanding common stock at an average price of \$47.03 per share for a total of \$48.2 million, excluding expenses.

On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The timing and size of any purchases will be subject to market conditions. The program is authorized for 12 months from the date of authorization. During fiscal 2011, we repurchased and retired 586,200 shares of outstanding common stock at an average price of \$42.67 per share for a total of \$25.0 million excluding expenses. At October 1, 2011, \$25.0 million remained authorized for repurchase under our repurchase program.

## RESULTS OF OPERATIONS—FISCAL 2011, 2010 AND 2009

Fiscal 2011 and 2010 consist of 52 weeks; fiscal 2009 consists of 53 weeks.

## Consolidated Summary

The following table sets forth, for the years indicated, the percentage of total net sales represented by the line items reflected in our consolidated statement of operations:

	Fiscal 2011	2010	2009	
	(As a percentage of net sales)			
Net sales	100.0	% 100.0	% 100.0	%
Cost of sales	56.3	% 56.9	% 63.0	%
Gross profit	43.7	% 43.1	% 37.0	%
Operating expenses:				
Research and development	10.1	% 12.0	% 14.1	%
Selling, general and administrative	18.6	% 20.4	% 24.8	%
Impairment of goodwill	—	% —	% 4.4	%
Amortization of intangible assets	1.0	% 1.3	% 1.7	%
Total operating expenses	29.7	% 33.7	% 45.0	%
Income (loss) from operations	14.0	% 9.4	% (8.0)	)%
Other income (net)	1.4	% 0.2	% (0.2)	)%
Income (loss) before income taxes	15.4	% 9.6	% (8.2)	)%
Provision for (benefit from) income taxes	3.8	% 3.5	% (0.1)	)%
Net income (loss)	11.6	% 6.1	% (8.1)	)%

Refer to Item 6 "Selected Financial Data" for a description of significant events that impacted the results of operations for fiscal years 2011, 2010 and 2009.

## Net Sales

## Market Application

The following table sets forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by market application (dollars in thousands):

Table of Contents

	Fiscal 2011		Fiscal 2010		Fiscal 2009			
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales		
Consolidated:								
Microelectronics	\$ 377,331	47.0	% \$ 230,763	38.1	% \$ 132,152	30.3	%	
OEM components and instrumentation	164,508	20.5	% 151,243	25.0	% 119,795	27.5	%	
Materials processing	104,497	13.0	% 82,181	13.6	% 61,072	14.0	%	
Scientific and government programs	156,498	19.5	% 140,880	23.3	% 122,863	28.2	%	
Total	\$ 802,834	100.0	% \$ 605,067	100.0	% \$ 435,882	100.0	%	

During fiscal 2011, net sales increased by \$197.8 million, or 33%, compared to fiscal 2010, including an increase of \$14.9 million due to the impact of foreign currency exchange rates, with sales increasing in all four markets.

Microelectronics sales increased \$146.6 million, or 64%, primarily due to higher sales in flat panel display, advanced packaging, semiconductor and solar applications. The increase in the OEM components and instrumentation market of \$13.3 million, or 9%, during fiscal 2011 was primarily due to higher shipments for bio-instrumentation, medical and machine vision applications. Materials processing sales increased \$22.3 million, or 27%, during fiscal 2011 primarily due to higher shipments for marking, cutting and drilling applications. The increase in scientific and government program market sales of \$15.6 million, or 11%, during fiscal 2011 was due to higher demand for advanced research applications used by university and government research groups.

During fiscal 2010, net sales increased by \$169.2 million, or 39%, compared to fiscal 2009, including an increase of \$6.1 million due to the impact of foreign currency exchange rates, with sales increasing in all four markets.

Microelectronics sales increased \$98.6 million, or 75%, primarily due to higher sales in advanced packaging, flat panel display, semiconductor and solar applications. The increase in the OEM components and instrumentation market of \$31.5 million, or 26%, during fiscal 2010 was primarily due to higher shipments for flow cytometry applications and for machine vision applications due to the acquisition of certain product lines from StockerYale in the first quarter of fiscal 2010. Materials processing sales increased \$21.1 million, or 35%, during fiscal 2010 primarily due to higher shipments for marking applications. The increase in scientific and government program market sales of \$18.0 million, or 15%, during fiscal 2010 was due to higher demand for advanced research applications used by university and government research groups in part due to Federal stimulus money.

In fiscal 2011, 2010 and 2009, no customers accounted for greater than 10% of net sales.

Segments

We are organized into two reportable operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). CLC focuses on higher volume products that are offered in set configurations. CLC's primary markets include OEM components and instrumentation and materials processing. SLS develops and manufacturers configurable, advanced-performance products largely serving the microelectronics and scientific research markets.

The following table sets forth, for the periods indicated, the amount of net sales and their relative percentages of total net sales by segment (dollars in thousands):

	Fiscal 2011		Fiscal 2010		Fiscal 2009			
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales		
Consolidated:								
Commercial Lasers and Components (CLC)	\$ 283,098	35.3	% \$ 208,691	34.5	% \$ 125,619	28.8	%	
Specialty Lasers and Systems (SLS)	519,736	64.7	% 396,276	65.5	% 310,163	71.2	%	

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Corporate and other	—	—	% 100	—	% 100	—	%
Total	\$ 802,834	100.0	% \$ 605,067	100.0	% \$ 435,882	100.0	%

Net sales for fiscal 2011 increased \$197.8 million, or 33%, compared to fiscal 2010, with increases of \$123.5 million, or 31%, in our SLS segment and increases of \$74.4 million, or 36%, in our CLC segment. Net sales for fiscal 2010 increased

43

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Table of Contents

\$169.2 million, or 39%, compared to fiscal 2009, with increases of \$86.1 million, or 28%, in our SLS segment and increases of \$83.1 million, or 66%, in our CLC segment.

The increase in our CLC segment sales from fiscal 2010 to fiscal 2011 was primarily due to higher advanced packaging, materials processing and flat panel display application sales. The increase in our CLC segment sales from fiscal 2009 to fiscal 2010 was primarily due to higher advanced packaging, materials processing, flat panel display and instrumentation application sales.

The increase in our SLS segment sales from fiscal 2010 to fiscal 2011 was primarily due to higher sales for flat panel display, semiconductor, scientific and advanced packaging applications. The increase in our SLS segment sales from fiscal 2009 to fiscal 2010 was primarily due to higher sales for advanced packaging, semiconductor, solar, scientific and flat panel display applications.

Gross Profit

Consolidated

Our gross profit rate increased by 0.6% to 43.7% in fiscal 2011 from 43.1% in fiscal 2010 primarily due to a lower manufacturing cost structure and higher sales volumes as well as a favorable product mix due to higher margins within the microelectronics market.

Our gross profit rate increased by 6.1% to 43.1% in fiscal 2010 from 37.0% in fiscal 2009 primarily due to higher sales volumes and a lower manufacturing cost structure as well as lower restructuring costs. The improvement includes lower other costs primarily due to lower need for inventory provisions for excess and obsolete items (2.3%), the benefit of a lower manufacturing cost structure (1.8%), lower restructuring costs (1.4%) and lower warranty and installation costs (0.7%) due to the benefit of increasing volumes net of the cost resulting from replacement of non-compliant vendor components.

Our gross profit rate has been and will continue to be affected by a variety of factors including market mix, pricing on volume orders, manufacturing efficiencies, excess and obsolete inventory write-downs, warranty costs, pricing by competitors or suppliers, new product introductions, production volume, customization and reconfiguration of systems, commodity prices and foreign currency fluctuations.

Commercial Lasers and Components

Our CLC gross profit rate increased by 4.9% to 41.1% in fiscal 2011 from 36.2% in fiscal 2010 primarily due to favorable product costs (2.4%) due to the impact of increased volumes and favorable product mix within the microelectronics market, lower restructuring costs (2.2%) and lower other costs (0.6%) due to lower inventory provisions partially offset by higher warranty costs (0.3%).

Our CLC gross profit rate increased by 9.8% to 36.2% in fiscal 2010 from 26.4% in fiscal 2009 primarily due to lower other costs (4.3%) primarily due to lower need for inventory provisions and the impact of higher sales volumes, lower restructuring costs (1.9%), the impact of increased volumes and cost reduction efforts (1.9%) and lower warranty and installation costs (1.6%) due to the benefit of increasing volumes net of the cost resulting from replacement of non-compliant vendor components.

Specialty Lasers and Systems

Our SLS gross profit rate decreased by 1.6% to 45.4% in fiscal 2011 from 47.0% in fiscal 2010 primarily due to unfavorable product costs (0.8%) resulting from unfavorable mix within the microelectronics market and the acquisition of Hypertronics net of the impact of increased volumes and cost reduction efforts as well as higher other costs (1.0%) due to higher inventory provisions and higher freight costs partially offset by lower warranty costs (0.2%).

Our SLS gross profit rate increased by 5.6% to 47.0% in fiscal 2010 from 41.4% in fiscal 2009 primarily due to the impact of increased volumes and cost reduction efforts as well as favorable product mix in the microelectronics and solar markets (2.5%), lower other costs (1.7%) due to lower need for inventory provisions and the impact of higher sales volumes and lower restructuring costs (1.3%). Although warranty and installation costs as a percentage of net sales were flat, the benefit of increasing volumes was offset by the cost resulting from replacement of non-compliant vendor components.

Operating Expenses



Table of Contents

	Fiscal 2011		2010		2009			
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales		
	(Dollars in thousands)							
Research and development	\$ 81,232	10.1	% \$ 72,354	12.0	% \$ 61,417	14.1	%	
Selling, general and administrative	149,499	18.6	% 123,575	20.4	% 108,098	24.8	%	
Impairment of goodwill	—	—	% —	—	% 19,286	4.4	%	
Amortization of intangible assets	8,082	1.0	% 8,002	1.3	% 7,466	1.7	%	
Total operating expenses	\$ 238,813	29.7	% \$ 203,931	33.7	% \$ 196,267	45.0	%	

**Research and development**

Fiscal 2011 research and development ("R&D") expenses increased \$8.9 million, or 12%, from fiscal 2010. The increase was due primarily to higher payroll spending (\$7.0 million) due to increased headcount and higher performance-related compensation and the acquisitions of Hypertronics in the second quarter of fiscal 2011 and Beam Dynamics in the middle of the third quarter of fiscal 2010 (\$2.3 million). As a percentage of sales, the decrease was primarily due to increased sales volumes. On a segment basis, CLC spending increased \$1.9 million primarily due to higher payroll spending and the acquisition of Beam Dynamics in the middle of the third quarter of fiscal 2010 partially offset by lower project spending and lower restructuring costs. SLS spending increased \$5.9 million primarily due to higher payroll spending, the acquisition of Hypertronics in the second quarter of fiscal 2011, higher project spending and the impact of foreign exchange rates. Corporate and other spending increased \$1.1 million. Fiscal 2010 R&D expenses increased \$10.9 million, or 18%, from fiscal 2009. The increase was primarily due to higher payroll spending (\$4.2 million) due to higher performance-related compensation net of lower severance-related restructuring costs and the elimination of mandatory time off, higher project spending (\$3.6 million), the acquisition of certain product lines from StockerYale in the first quarter of fiscal 2010 and Beam Dynamics in the third quarter of fiscal 2010 (\$2.6 million), higher charges for increases in deferred compensation plan liabilities (\$0.7 million) with the related earnings for increases in deferred compensation plan assets recorded in other income (expense), \$0.3 million higher stock-related compensation expense and higher other spending (\$0.2 million) partially offset by lower non-severance related restructuring costs (\$0.7 million). On a segment basis, CLC spending increased \$6.4 million primarily due to higher project spending including higher payroll and bonus spending as well as the acquisition of StockerYale. SLS spending increased \$2.5 million primarily due to higher payroll and bonus spending partially offset by lower restructuring costs. Corporate and other spending increased \$2.0 million.

**Selling, general and administrative**

Fiscal 2011 selling, general and administrative ("SG&A") expenses increased \$25.9 million, or 21%, from fiscal 2010. The increase was primarily due to \$12.3 million higher payroll spending due to higher performance-related compensation spending, higher headcount and increased salaries, \$4.9 million higher other variable spending, \$3.8 million higher stock-related compensation expense, the acquisitions of Hypertronics in the second quarter of fiscal 2011 and Beam Dynamics in the middle of the third quarter of fiscal 2010 (\$2.2 million), the impact of foreign currency exchange rates (\$1.8 million) and higher charges for increases in deferred compensation plan liabilities (\$0.9 million) with the related earnings for increases in deferred compensation plan assets recorded in other income (expense) partially offset by lower restructuring costs (\$2.2 million). In addition, fiscal 2010 SG&A expenses were reduced by a \$2.2 million net receipt from the settlement of litigation resulting from our stock option investigation. On a segment basis, CLC spending increased \$3.5 million primarily due to higher payroll spending and higher other variable spending partially offset by lower restructuring costs. SLS segment expenses increased \$12.6 million primarily due to higher payroll spending, the acquisition of Hypertronics, the impact of foreign currency exchange rates and higher other variable spending. Spending for Corporate and other increased \$9.8 million primarily due to higher stock-related compensation expense, the net receipt from the settlement of litigation resulting from our stock option investigation in the first quarter of fiscal 2010, higher payroll spending, higher charges for increases in deferred compensation plan liabilities and higher other variable spending.

Fiscal 2010 SG&A expenses increased \$15.5 million, or 14%, from fiscal 2009. The increase was primarily due to \$11.0 million higher payroll spending due to higher performance-related compensation spending and the elimination of mandatory time off net of savings from site consolidations and other restructuring activities, \$4.3 million higher charges due to increases in deferred compensation plan liabilities with the related earnings for increases in deferred compensation plan assets recorded in other income (expense), the acquisition of certain product lines from StockerYale (\$2.8 million), higher other spending (\$1.2 million), \$0.9 million higher stock-related compensation expense and the impact of foreign currency exchange

Table of Contents

rates (\$0.6 million) partially offset by \$3.3 million lower costs incurred for litigation resulting from our internal stock option investigation primarily due to a receipt from the settlement of the litigation and \$2.0 million lower spending on facilities due to site consolidations. On a segment basis, CLC spending increased \$6.1 million primarily due to higher payroll spending and the acquisition of certain product lines from StockerYale. SLS segment expenses increased \$3.0 million primarily due to higher payroll spending net of savings from site consolidations. Spending for Corporate and other increased \$6.4 million primarily due to higher charges due to increases in deferred compensation plan liabilities and higher performance-related compensation spending partially offset by lower costs incurred for litigation resulting from our internal stock option investigation.

**Impairment of goodwill**

Under generally accepted accounting principles, goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired. During the first quarter of fiscal 2009, our stock price declined substantially, which combined with expectations of declines in forecasted operating results due to the slowdown in the global economy, led the Company to conclude that a triggering event for review for potential goodwill impairment had occurred. Accordingly, as of December 27, 2008, we performed an interim goodwill impairment evaluation which indicated that the goodwill was fully impaired. We recorded a non-cash goodwill impairment charge of \$19.3 million in the CLC reporting unit in the first quarter of fiscal 2009.

**Amortization of intangible assets**

Amortization of intangible assets increased \$0.1 million, or 1%, from fiscal 2010 to fiscal 2011 primarily due to the amortization of intangibles from the acquisition of Hypertronics in the second quarter of fiscal 2011 and Beam Dynamics in the third quarter of fiscal 2010, partially offset by completion of amortization of certain intangibles related to prior acquisitions.

Amortization of intangible assets increased \$0.5 million, or 7%, from fiscal 2009 to fiscal 2010 primarily due to the acquisition of certain product lines from StockerYale and the acquisition of Beam Dynamics partially offset by completion of amortization of certain intangibles related to prior acquisitions.

**Other income (expense), net**

Other income (expense), net, increased \$10.7 million from fiscal 2010 to fiscal 2011. The increase was primarily due to the \$6.5 million non-recurring translation adjustment related to the dissolution of our Finland operations, higher net foreign currency exchange gains (\$2.9 million) and higher gains on our deferred compensation plan assets net of expenses (\$2.4 million) including a \$1.5 million death benefit, partially offset by lower interest income (\$1.0 million) primarily due to interest on a tax refund in fiscal 2010.

Other income (expense), net, increased \$1.8 million from fiscal 2009 to fiscal 2010. The increase was primarily due to the recovery in the market value of our deferred compensation plan assets (\$5.1 million) partially offset by lower benefit from Japan consumption tax savings (\$2.5 million) as the benefit expired in the fourth quarter of fiscal 2009, lower interest income (\$0.6 million) as a result of lower rates of return net of interest on tax refunds and the impact of higher average cash, cash equivalents and short-term investments balances and higher foreign currency exchange losses (\$0.3 million).

**Income taxes**

The effective tax rate on income before income taxes for fiscal 2011 of 24.7% was lower than the statutory rate of 35.0%. This was primarily due to the benefit of releasing unrecognized tax benefits under ASC 740-10 and related interest, the benefit of federal research and development credits, including additional credits reinstated from fiscal 2010 resulting from the enactment of the "Tax Relief, Unemployment Insurance Reauthorization and Jobs Creation Acts of 2010," the benefit of foreign tax credits, the benefit of currency translation adjustments related to closure of Coherent Finland's operations, the benefit from income subject to foreign tax rates that are lower than U.S. tax rates and the benefit from the unrealized gain on life insurance policy investments related to our deferred compensation plans. These amounts are partially offset by state income tax, limitations on the utilization of certain foreign tax attributes and net operating losses, limitations on the deductibility of compensation under IRC Section 162(m), deemed dividend inclusions under the Subpart F tax rules and a currency translation adjustment related to a dividend from a foreign subsidiary.

During fiscal 2011, we increased our valuation allowance on deferred tax assets by \$1.5 million to \$8.8 million, primarily due to the reduced ability to utilize foreign tax attributes and net operating losses and the reduced ability to utilize California research and development tax credits as a result of releasing net unrecognized tax benefits under ASC 740-10 that supported the credits. During fiscal 2010, we increased our valuation allowance on deferred tax assets to \$7.4 million, primarily due to a capital loss limitation true-up, the reduced ability to utilize California research and development tax credits as a result of the current apportionment factor and the reduced ability to utilize foreign net operating losses. During fiscal year 2009, we increased our valuation allowance on deferred tax assets to \$6.8 million, primarily due to California research and development

## Table of Contents

tax credits as a result of new California legislation and the reduced ability to utilize foreign net operating losses. In making the determination to record the valuation allowance, management considered the likelihood of future taxable income and feasible and prudent tax planning strategies to realize deferred tax assets. In the future, if we determine that we expect to realize deferred tax assets, an adjustment to the valuation allowance will affect income in the period such determination is made.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 ("Act"), was enacted on December 17, 2010. Under the Act, the federal research and development credit was retroactively extended for amounts paid or incurred after December 31, 2009 through December 31, 2011. The effects of the change in the tax law are recognized in our first quarter of fiscal 2011, which is the quarter that the law was enacted.

In addition to the federal legislation, the state of California approved its 2010-2011 budget on October 8, 2010 that includes modifications to the tax law provisions that were previously set to become effective with tax years beginning on or after January 1, 2011. Accordingly, we were able to benefit from additional research and development tax credits in fiscal year 2011 that were previously limited.

The effective tax rate on income before income taxes for fiscal 2010 of 36.3% was higher than the statutory rate of 35.0%. This was primarily due to stock compensation not deductible for tax purposes and an increase in valuation allowance against capital loss carryforwards, California research and development tax credits as a result of California legislation enacted in February 2009 and certain foreign net operating loss carryforwards. These increases are partially offset by the benefit of income subject to foreign tax rates that are lower than U.S. tax rates and research and development credits.

The difference between the statutory rate of 35.0% and our effective tax rate of 1.5% on income (loss) before income taxes for fiscal 2009, which represents a current year benefit, was due primarily to permanent differences related to the non-deductibility of the goodwill impairment charge, an increase in valuation allowance against California research and development tax credits as a result of California legislation enacted in February 2009 and certain foreign net operating loss carryforwards, and deemed dividend inclusions under the Subpart F tax rules. These amounts are partially offset by permanent differences related to the benefit of foreign tax credits and the benefit of federal research and development tax credits, including additional credits reinstated from fiscal 2008 resulting from the enactment of the "Emergency Economic Stabilization Act of 2008."

## FINANCIAL CONDITION

### Liquidity and capital resources

At October 1, 2011, we had assets classified as cash and cash equivalents, as well as time deposits and fixed income securities classified as short-term investments, in an aggregate amount of \$220.2 million, compared to \$263.4 million at October 2, 2010. At October 1, 2011, we held cash and cash equivalents outside the U.S. in certain of our foreign operations totaling approximately \$145.1 million, the majority of which is denominated in the Euro. We currently intend to permanently reinvest approximately \$134 million of the cash held by our foreign subsidiaries. If, however, a portion of these funds were needed for and distributed to our operations in the United States, we would be subject to additional U.S. income taxes and foreign withholding taxes. The amount of taxes due will depend on the amount and manner of repatriation, as well as the location from where the funds are repatriated. We actively monitor the third-party depository institutions that hold these assets, primarily focusing on the safety of principal and secondarily maximizing yield on these assets. We diversify our cash and cash equivalents and investments among various financial institutions, money market funds and sovereign debt in order to reduce our exposure should any one of these financial institutions or financial instruments fail or encounter difficulties. To date, we have not experienced any material loss or lack of access to our invested cash, cash equivalents or short-term investments. However, we can provide no assurances that access to our invested cash, cash equivalents or short-term investments will not be impacted by adverse conditions in the financial markets.

### Sources and Uses of Cash

Historically, our primary source of cash has been provided by operations. Other sources of cash in the past three fiscal years include proceeds received from the sale of our stock through our employee stock option and purchase plans. Our historical uses of cash have primarily been for the repurchase of our common stock, capital expenditures and

acquisitions of businesses and technologies. Supplemental information pertaining to our historical sources and uses of cash is presented as follows and should be read in conjunction with our Consolidated Statements of Cash Flows and notes thereto (in thousands):

47

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Table of Contents

	Fiscal		
	2011	2010	2009
Net cash provided by operating activities	\$ 86,676	\$ 78,813	\$ 39,049
Sales of shares under employee stock plans	34,720	33,438	4,674
Repurchase of common stock	(100,637	) (43,335	) —
Capital expenditures	(37,117	) (15,139	) (21,627
Acquisition of businesses, net of cash acquired	(14,108	) (20,745	) —

Net cash provided by operating activities increased by \$7.9 million in fiscal 2011 compared to fiscal 2010 and increased by \$39.8 million in fiscal 2010 compared to fiscal 2009. The increase in cash provided by operating activities in fiscal 2011 was primarily due to higher net income partially offset by lower cash flows from inventories, accounts payable and other current liabilities. The increase in cash provided by operating activities in fiscal 2010 was primarily due to higher net income and lower tax payments due to new tax legislation which allows the carry back of net operating losses for up to five years partially offset by lower cash flows from increased working capital (accounts receivable and inventories, net of increases in accounts payable and accrued expenses) needed to support increased sales and projected sales volumes. We believe that our existing cash, cash equivalents and short term investments combined with cash to be provided by operating activities will be adequate to cover our working capital needs and planned capital expenditures for at least the next 12 months to the extent such items are known or are reasonably determinable based on current business and market conditions. However, we may elect to finance certain of our capital expenditure requirements through borrowings under our bank credit facilities or other sources of capital. We continue to follow our strategy to further strengthen our financial position by using available cash flow to fund operations.

We intend to continue pursuing acquisition opportunities at valuations we believe are reasonable based upon market conditions as demonstrated by our acquisition of businesses from Hypertronics in the second quarter of fiscal 2011, Beam Dynamics in the third quarter of fiscal 2010 and StockerYale in the first quarter of fiscal 2010. However, we cannot accurately predict the timing, size and success of our acquisition efforts or our associated potential capital commitments. Furthermore, we cannot assure you that we will be able to acquire businesses on terms acceptable to us. We expect to fund future acquisitions primarily through existing cash balances and cash flows from operations. If required, we will look for additional borrowings or consider the issuance of securities. The extent to which we will be willing or able to use our common stock to make acquisitions will depend on its market value at the time and the willingness of potential sellers to accept it as full or partial payment.

On April 29, 2010, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. During fiscal 2010, we repurchased and retired 1,195,829 shares of outstanding common stock at an average price of \$36.21 per share for a total of \$43.3 million, excluding expenses.

On January 26, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$75.0 million of our common stock. The program was authorized for 12 months from the date of authorization. During fiscal 2011, we completed the stock repurchase. We repurchased and retired 454,682 shares of outstanding common stock at an average price of \$59.00 per share for a total of \$26.8 million, excluding expenses. During the third and fourth quarters of fiscal 2011, we repurchased and retired 1,024,409 shares of outstanding common stock at an average price of \$47.03 per share for a total of \$48.2 million, excluding expenses.

On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The program is authorized for 12 months from the date of authorization. During fiscal 2011, we repurchased and retired 586,200 shares of outstanding common stock at an average price of \$42.67 per share for a total of \$25.0 million, excluding expenses. At October 1, 2011, \$25.0 million remained authorized for repurchase under our repurchase program.

During fiscal year 2008, we initiated restructuring plans to decrease costs by consolidating facilities and reducing our workforce. As of October 1, 2011, we had made payments in connection with the restructuring plans in the amount of \$27.7 million. We completed payments for substantially all anticipated costs related to the restructuring plans in the third quarter of fiscal 2011.

Additional sources of cash available to us were domestic and international currency lines of credit and bank credit facilities totaling \$60.6 million as of October 1, 2011, of which \$58.5 million was unused and available. These unsecured credit facilities were used in Europe during fiscal 2011 as guarantees. Our domestic line of credit includes a \$40.0 million unsecured revolving credit account with Union Bank of California, which expires on March 31, 2012 and is subject to covenants related to financial ratios and tangible net worth. No amounts have been drawn upon our domestic line of credit and \$2.1 million has been

Table of Contents

used of the international currency lines as of October 1, 2011.

Our ratio of current assets to current liabilities was 3.6:1 at October 1, 2011, compared to 4.1:1 at October 2, 2010.

The decrease in our ratio is primarily due to decreases in cash and increases in income taxes payable and other current liabilities partially offset by increases in inventories and accounts receivable. Our cash and cash equivalents, short-term investments, restricted cash, working capital and debt obligations are as follows (in thousands):

	Fiscal	
	2011	2010
Cash and cash equivalents	\$ 167,061	\$ 245,380
Short-term investments	53,142	17,391
Restricted cash, current	—	625
Working capital	418,241	410,597
Total debt obligations	34	51

**Contractual Obligations and Off-Balance Sheet Arrangements**

We have no off-balance sheet arrangements as defined by Regulation S-K of the Securities Act of 1933. The following summarizes our contractual obligations at October 1, 2011 and the effect such obligations are expected to have on our liquidity and cash flow in future periods (in thousands):

	Total	Less than 1 year	1 to 3 years	3 to 5 years	More than 5 years
Long-term debt payments	\$34	\$15	\$19	\$—	\$—
Operating lease payments	43,845	8,465	12,562	8,996	13,822
Asset retirement obligations	2,234	—	1,100	35	1,099
Purchase commitments with suppliers	71,484	71,484	—	—	—
Purchase obligations	8,569	8,569	—	—	—
Total	\$126,166	\$88,533	\$13,681	\$9,031	\$14,921

Because of the uncertainty as to the timing of such payments, we have excluded cash payments related to our contractual obligations for our deferred compensation plans aggregating \$25.5 million at October 1, 2011.

As of October 1, 2011, we recorded gross unrecognized tax benefits of \$33.7 million and gross interest and penalties of \$3.4 million. As of October 2, 2010, we recorded gross unrecognized tax benefits of \$50.1 million and gross interest and penalties of \$6.9 million. Both gross unrecognized tax benefits and gross interest and penalties are classified as non-current liabilities in the consolidated balance sheet. At this time, we are unable to make a reasonably reliable estimate of the timing of payments in individual years due to uncertainties in the timing of tax audit outcomes. As a result, these amounts are not included in the table above.

**Changes in financial condition**

Cash provided by operating activities in fiscal 2011 was \$86.7 million, which included net income of \$93.2 million, depreciation and amortization of \$28.6 million, decreases in net deferred tax assets of \$22.1 million due to utilization of tax credits and stock-based compensation expense of \$13.0 million partially offset by cash used by operating assets and liabilities of \$59.0 million, a non-recurring translation adjustment related to the dissolution of our Finland operations of \$6.5 million and \$4.7 million other.

Cash used in investing activities in fiscal 2011 of \$85.7 million included \$35.4 million net purchases of available-for-sale securities, \$36.8 million, net, used to acquire property and equipment and improve buildings and \$14.1 million used to acquire Hypertronics partially offset by decreases in restricted cash of \$0.6 million.

Cash used in financing activities in fiscal 2011 was \$64.1 million, including \$100.6 million used to repurchase our common stock partially offset by \$34.7 million generated from our employee stock purchase plans and \$1.8 million other.

Changes in exchange rates in fiscal 2011 resulted in a decrease in cash balances of \$15.2 million.

**RECENT ACCOUNTING PRONOUNCEMENTS**

See Note 2. "Significant Accounting Policies" in the Notes to Consolidated Financial Statements under Item 15 of this



Table of Contents

Annual Report on Form 10-K for a full description of recent accounting pronouncements, including the respective dates of adoption or expected adoption and effects on our consolidated financial position, results of operations and cash flows.

**APPLICATION OF CRITICAL ACCOUNTING POLICIES**

Our discussion and analysis of financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America and pursuant to the rules and regulations of the SEC. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. We have identified the following as the items that require the most significant judgment and often involve complex estimation: revenue recognition, accounting for long-lived assets (including goodwill and intangible assets), inventory valuation, warranty reserves, stock-based compensation and accounting for income taxes.

**Revenue Recognition**

We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists, the product has been delivered or the service has been rendered, the price is fixed or determinable and collection is probable. Revenue from product sales is recorded when all of the foregoing conditions are met and risk of loss and title passes to the customer. Our products typically include a warranty and the estimated cost of product warranty claims (based on historical experience) is recorded at the time the sale is recognized. Sales to customers are generally not subject to any price protection or return rights.

The vast majority of our sales are made to original equipment manufacturers (OEMs), distributors, resellers and end-users in the non-scientific market. Sales made to these customers do not require installation of the products by us and are not subject to other post-delivery obligations, except in occasional instances where we have agreed to perform installation or provide training. In those instances, we defer revenue related to installation services or training until these services have been rendered. We allocate revenue from multiple element arrangements to the various elements based upon fair values or a selling price hierarchy, for arrangements entered into subsequent to October 2, 2010, as discussed below.

Should changes in conditions cause management to determine these criteria are not met for certain future transactions, revenue recognized for any reporting period could be adversely affected. Failure to obtain anticipated orders due to delays or cancellations of orders could have a material adverse effect on our revenue. In addition, pressures from customers to reduce our prices or to modify our existing sales terms may have a material adverse effect on our revenue in future periods.

Our sales to distributors, resellers and end-user customers typically do not have customer acceptance provisions and only certain of our sales to OEM customers have customer acceptance provisions. Customer acceptance is generally limited to performance under our published product specifications. For the few product sales that have customer acceptance provisions because of higher than published specifications, (1) the products are tested and accepted by the customer at our site or by the customer's acceptance of the results of our testing program prior to shipment to the customer, or (2) the revenue is deferred until customer acceptance occurs.

Sales to end-users in the scientific market typically require installation and, thus, involve post-delivery obligations; however our post-delivery installation obligations are not essential to the functionality of our products. We defer revenue related to installation services until completion of these services.

For most products, training is not provided; therefore, no post-delivery training obligation exists. However, when training is provided to our customers, it is typically priced separately and recognized as revenue as these services are provided.

In October 2009, the Financial Accounting Standards Board ("FASB") issued a new accounting standard for multiple deliverable revenue arrangements. The new standard changes the requirements for establishing separate units of accounting in a multiple element arrangement and requires the allocation of arrangement consideration to each deliverable to be based on the relative selling price. The FASB also issued a new accounting standard for certain

revenue arrangements that include software elements. This new standard excludes software that is contained on a tangible product from the scope of software revenue guidance if the software is essential to the tangible product's functionality. We prospectively adopted both these standards in the first quarter of fiscal 2011. The impact of adopting these standards was not material to net sales or our consolidated financial statements for fiscal 2011. The new accounting standards for revenue recognition if applied in the same manner to the year ended October 2, 2010 would not have had a material impact on net sales or to our consolidated financial statements for that fiscal year. Under these new standards, when a sales arrangement contains multiple elements, such as products and/or services, we allocate revenue to each element based on a selling price hierarchy. Using the selling price hierarchy, we determine the selling

Table of Contents

price of each deliverable using vendor specific objective evidence (“VSOE”), if it exists, and otherwise third-party evidence (“TPE”). If neither VSOE nor TPE of selling price exists, we use estimated selling price (“ESP”). We generally expect that we will not be able to establish TPE due to the nature of the markets in which we compete, and, as such, we typically will determine selling price using VSOE or if not available, ESP.

Our basis for establishing VSOE of a deliverable's selling price consists of standalone sales transactions when the same or similar product or service is sold separately. However, when services are never sold separately, such as product installation services, VSOE is based on the product's estimated installation hours based on historical experience multiplied by the standard service billing rate. In determining VSOE, we require that a substantial majority of the selling price for a product or service fall within a reasonably narrow price range, as defined by us. We also consider the geographies in which the products or services are sold, major product and service groups, and other environmental variables in determining VSOE. Absent the existence of VSOE and TPE, our determination of a deliverable's ESP involves evaluating several factors based on the specific facts and circumstances of these arrangements, which include pricing strategy and policies driven by geographies, market conditions, competitive landscape, correlation between proportionate selling price and list price established by management having the relevant authority, and other environmental variables in which the deliverable is sold.

For multiple element arrangements which include extended maintenance contracts, we allocate and defer the amount of consideration equal to the separately stated price and recognize revenue on a straight-line basis over the contract period.

Long-Lived Assets and Goodwill

We evaluate long-lived assets and amortizable intangible assets whenever events or changes in business circumstances or our planned use of assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. Reviews are performed to determine whether the carrying values of the assets are impaired based on comparison to the undiscounted expected future cash flows identifiable to such long-lived and amortizable intangible assets. If the comparison indicates that impairment exists, the impaired asset is written down to its fair value.

We have determined that our reporting units are the same as our operating segments as each constitutes a business for which discrete financial information is available and for which segment management regularly reviews the operating results. We make this determination in a manner consistent with how the operating segments are managed. Based on this analysis, we have identified two reporting units which are our reportable segments: CLC and SLS.

Goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired (see Note 8 "Goodwill and Intangible Assets" in the Notes to Consolidated Financial Statements). We generally perform our annual impairment tests during the fourth quarter of each fiscal year using the opening balance sheet as of the first day of the fourth fiscal quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

During the first quarter of fiscal 2009, our stock price declined substantially which, combined with expectations of declines in forecasted operating results due to the slowdown in the global economy, led the Company to conclude that a triggering event for review for potential goodwill impairment had occurred. Accordingly, as of December 27, 2008, we performed an interim goodwill impairment evaluation. Goodwill is tested for impairment by comparing the respective fair value with the respective carrying value of the reporting unit. If such comparison indicates a potential impairment, then the impairment is determined as the difference between the recorded value of goodwill and its fair value. The performance of this test is a two-step process.

Step 1 of the impairment test involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, we perform Step 2 of the goodwill impairment test to determine the amount of impairment loss if any. Step 2 of the goodwill impairment test involves comparing the implied fair value of the affected reporting unit's goodwill against the carrying value of that goodwill.

We have historically relied on the Income approach to determine the fair value of our reporting units. In the first quarter of fiscal 2009, when we determined that a triggering event had occurred, we subsequently determined that it would be appropriate to rely on the following three valuation approaches to determine the fair value of both of our

reporting units. (1) The Income approach utilizes the discounted cash flow model to provide an estimation of fair value based on the cash flows that a business expects to generate. These cash flows are based on forecasts developed internally by management which are then discounted at an after tax rate of return required by equity and debt market participants of a business enterprise. This rate of return or cost of capital is weighted based on the capitalization of comparable companies. (2) The Market approach determines fair value by comparing the reporting units to comparable companies in similar lines of business that are publicly traded. Total Enterprise Value (TEV) multiples such as TEV to revenues and TEV to earnings (if applicable) before interest and taxes of the publicly traded companies are calculated. These multiples are then applied to the reporting unit's operating results to obtain an estimate of fair value. (3) The Transaction approach estimates the fair value of the reporting unit based on market



Table of Contents

prices in actual transactions. A comparison is done between the reporting units and other similar businesses. Total Enterprise Value multiples for revenue and earnings as noted in the Market approach above are calculated from the comparable companies and then applied to the reporting unit's operating results to obtain an estimate of fair value. Each of these three approaches captures aspects of value in each reporting unit. The Income approach captures our expected future performance, the Market approach captures how investors view the reporting units through other competitors; and, the Transaction approach captures value through transactions for sales of similar types of companies. We believe these valuation approaches are proven valuation techniques and methodologies for our industry and are widely accepted by investors.

As none were perceived by us to deliver any greater indication of value than the other, we weighted each of the approaches equally. The sensitivity analysis performed by management determined that by changing the weighting placed on the three approaches, the result of the Step 1 test for both reporting units was not affected.

The valuation analysis requires significant judgments and estimates to be made by management in particular related to the forecast. The assumed growth rates and gross margins as well as period expenses were determined based on internally developed forecasts considering our future plans. The assumptions used were management's best estimates based on projected results and market conditions as of the date of testing. In order to test the sensitivity of these fair values, management further reviewed other scenarios relative to these assumptions to see if the resulting impact on fair values would have resulted in a different Step 1 conclusion for the CLC and SLS reporting units.

Based on these forecast scenarios, the fair value of both reporting units was re-calculated. In addition, this sensitivity analysis applied more conservative assumptions with regard to control premiums as well as multipliers used in the Market approach and the Transaction approach. In each of the sensitivity analyses performed, the CLC reporting unit failed and the SLS reporting unit passed. None of the outcomes of the sensitivity analyses performed would have impacted our Step 1 conclusions or the non-cash impairment charge for goodwill of \$19.3 million recorded in the first quarter of fiscal 2009.

Sensitivity was also applied to the discount rate used in the Income approach for both the CLC and SLS reporting units. At December 27, 2008, the discount rate for the CLC reporting unit could have been reduced by more than 40% and still resulted in a failure. For the SLS reporting unit, the discount rate could have been increased by more than 40% and still resulted in no impairment.

During the second quarter of fiscal 2009, our expectations of declines in forecasted operating results due to the slowdown in the global economy and the further declines in our stock price led us to conclude that a triggering event for review for potential goodwill impairment had occurred. Accordingly, as of April 4, 2009, we performed an interim goodwill impairment evaluation. This interim impairment evaluation utilized the same valuation techniques used in our impairment valuation in the first quarter of fiscal 2009. A similar sensitivity analysis was also done at April 4, 2009 where we determined that the discount rate used in the Income approach for the SLS reporting unit could have been increased by approximately 20% and still resulted in no impairment. Based on the results of our Step 1 analysis, we determined that no additional goodwill impairment was indicated.

During the third and fourth quarters of fiscal 2009, and the first three quarters of fiscal 2010, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment.

For fiscal 2010, we performed our annual goodwill impairment testing during the fourth quarter of fiscal 2010 using the opening balance sheet as of the first day of the fourth fiscal quarter and noted no impairment. As noted in the valuation analysis discussion above, such analysis requires significant judgments and estimates to be made by management in particular related to the forecast. The assumed growth rates and gross margins as well as period expenses were determined based on internally developed forecasts considering our future plans. The assumptions used were management's best estimates based on projected results and market conditions as of the date of testing. Utilizing the Income Approach, we noted no impairment. Based on our evaluation, the fair values of each of the two operating segments significantly exceeded their carrying value. In order to test the sensitivity of these fair values, management further reviewed other scenarios relative to these assumptions to see if the resulting impact on fair values would have resulted in a different conclusion for the CLC and SLS reporting units. Sensitivity was applied to the discount rate used in the Income approach for both the CLC and SLS reporting units. The discount rate for the CLC and SLS reporting units could have been increased by more than 25% and still resulted in no impairment. Based on the

outcome of this testing and sensitivity analysis, we decided it would not be necessary to utilize all three testing methods for this annual test.

At October 1, 2011, we had \$76.0 million of goodwill, \$18.0 million of purchased intangible assets and \$104.5 million of property and equipment on our consolidated balance sheet.

Under the goodwill standards, a company may carry forward the detailed determination of a reporting unit from one year to the next if certain criteria have been met. Those criteria include: the assets and liabilities that make up the reporting unit have not changed significantly since the most recent fair value determination, the most recent fair value determination resulted in an

## Table of Contents

amount that exceeded the carrying amount of the reporting unit by a substantial margin, and based on an analysis of events that have occurred and circumstances that have changed since the most recent fair value determination, the likelihood that a current fair value determination would be less than the current carrying amount of the reporting unit is remote.

Based on our analysis and a review of the criteria, using the opening balance sheet as of the first day of the fourth quarter of fiscal 2011, we determined that we had met the requirements of the goodwill standard for carrying forward our fair value determination from fiscal 2010, and did not perform detailed testing of the fair value of our reporting units for fiscal 2011. Between the completion of that testing and the end of the fourth quarter of fiscal 2011, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment; based on our evaluation, the fair values of each of the two operating segments significantly exceeded their carrying value as of that date.

As no impairment indicators were present during the fourth quarter of fiscal 2011, we believe these values remain recoverable.

It is reasonably possible that the estimates of anticipated future net revenue, the remaining estimated economic life of the products and technologies, or both, could differ from those used to assess the recoverability of these assets in fiscal 2010. In addition, if the price of our common stock were to significantly decrease combined with any other adverse change in market conditions, thus indicating that the underlying fair value of our reporting units or other long-lived assets may have decreased, we may be required to assess the recoverability of such assets in the period such circumstances are identified. In that event, additional impairment charges or shortened useful lives of certain long-lived assets may be required.

### Inventory Valuation

We record our inventory at the lower of cost (computed on a first-in, first-out basis) or market. We write-down our inventory to its estimated market value based on assumptions about future demand and market conditions. Inventory write-downs are generally recorded within guidelines set by management when the inventory for a device exceeds 12 months of its demand and when individual parts have been in inventory for greater than 12 months. If actual market conditions are less favorable than those projected by management, additional inventory write-downs may be required which could materially affect our future results of operations. Due to rapidly changing forecasts and orders, additional write-downs for excess or obsolete inventory, while not currently expected, could be required in the future. In the event that alternative future uses of fully written down inventories are identified, we may experience better than normal profit margins when such inventory is sold. Differences between actual results and previous estimates of excess and obsolete inventory could materially affect our future results of operations. We write-down our demo inventory by amortizing the cost of demo inventory over a twenty month period starting from the fourth month after such inventory is placed in service.

### Warranty Reserves

We provide warranties on certain of our product sales and allowances for estimated warranty costs are recorded during the period of sale. The determination of such allowances requires us to make estimates of product return rates and expected costs to repair or replace the products under warranty. We currently establish warranty reserves based on historical warranty costs for each product line. The weighted average warranty period covered is approximately 15 months. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods.

### Stock-Based Compensation

We account for stock-based compensation using fair value. We estimate the fair value of stock options granted using the Black-Scholes Merton model and estimate the fair value of market-based performance restricted stock units granted using a Monte Carlo simulation model. We use historical data to estimate pre-vesting option forfeitures and record stock-based compensation expense only for those awards that are expected to vest. We amortize the fair value of stock options on a straight-line basis over the requisite service periods of the awards, which are generally the vesting periods. We value service-based restricted stock units using the intrinsic value method and amortize the value on a straight-line basis over the restriction period. We value market-based performance restricted stock units using a Monte Carlo simulation model and amortize the value over the performance period, with no adjustment in future

periods, based upon the actual shareholder return over the performance period.

U.S. Generally Accepted Accounting Principles ("GAAP") requires the use of option pricing models that were not developed for use in valuing employee stock options. The Black-Scholes option-pricing model was developed for use in estimating the fair value of short-lived exchange traded options that have no vesting restrictions and are fully transferable. In addition, option-pricing models require the input of highly subjective assumptions, including the options expected life, the expected price volatility of the underlying stock and an estimate of expected forfeitures. Our computation of expected volatility considers historical volatility and market-based implied volatility. Our estimate of expected forfeitures is based on historical

Table of Contents

employee data and could differ from actual forfeitures.

See Note 14 "Employee Stock Option and Benefit Plans" in the notes to the Consolidated Financial Statements under Item 15 of this Annual Report on Form 10-K for a description of our stock-based employee compensation plans and the assumptions we use to calculate the fair value of stock-based employee compensation.

**Income Taxes**

As part of the process of preparing our consolidated financial statements, we are required to estimate our income tax provision (benefit) in each of the jurisdictions in which we operate. This process involves us estimating our current income tax provision (benefit) together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheets.

We record a valuation allowance to reduce our deferred tax assets to an amount that more likely than not will be realized. While we have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event we were to determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the allowance for the deferred tax asset would increase income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our net deferred tax asset in the future, an adjustment to the valuation allowance for the deferred tax asset would be charged to income in the period such determination was made.

Federal income taxes have not been provided for on a portion of the unremitted earnings of foreign subsidiaries because such earnings are intended to be permanently reinvested. The total amount of unremitted earnings of foreign subsidiaries for which we have not yet recorded federal income taxes was approximately \$198.7 million at fiscal 2011 year-end. In addition to federal income taxes (which are not practicably determinable), withholding taxes of approximately \$9.4 million would be payable upon repatriation of such earnings which would result in additional foreign tax credits.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 ("Act"), was enacted on December 17, 2010. Under the Act, the federal research and development credit was retroactively extended for amounts paid or incurred after December 31, 2009 through December 31, 2011. The effects of the change in the tax law are recognized in our first quarter of fiscal 2011, which is the quarter that the law was enacted.

In addition to the federal legislation, the state of California approved its 2010-2011 budget on October 8, 2010 that includes modifications to the tax law provisions that were previously set to become effective with tax years beginning on or after January 1, 2011. Accordingly, we were able to benefit from additional research and development tax credits in fiscal year 2011 that were previously limited.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

**Market risk disclosures**

We are exposed to market risk related to changes in interest rates and foreign currency exchange rates. We do not use derivative financial instruments for speculative or trading purposes.

**Interest rate sensitivity**

A portion of our investment portfolio is composed of fixed income securities. These securities are subject to interest rate risk and will fall in value if market interest rates increase. If market interest rates were to increase immediately and uniformly by 10% from levels at fiscal 2011 year-end, the fair value of the portfolio, based on quoted market prices in active markets involving similar assets, would decline by an immaterial amount. We have the ability to generally hold our fixed income investments until maturity and therefore we would not expect our operating results or cash flows to be affected to any significant degree by the effect of a sudden change in market interest rates on our securities portfolio. If necessary, we may sell short-term investments prior to maturity to meet our liquidity needs. At fiscal 2011 year-end, the fair value of our available-for-sale debt securities was \$46.6 million, all of which was classified as short-term investments. Gross unrealized gains and losses on available-for-sale debt securities were \$276,000 and (\$27,000), respectively, at fiscal 2011 year-end. At fiscal 2010 year-end, the fair value of our available-for-sale debt securities was \$17.4 million, all of which was classified as short-term investments. Gross unrealized gains and losses on available-for-sale debt securities were \$82,000 and (\$2,000), respectively, at fiscal

2010 year-end.

Foreign currency exchange risk

We maintain operations in various countries outside of the United States and have foreign subsidiaries that manufacture

54

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Table of Contents

and sell our products in various global markets. The majority of our sales are transacted in U.S. dollars. However, we do generate revenues in other currencies, primarily the Euro and the Japanese Yen. As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. A substantial portion of our cash balance is Euro denominated. We attempt to limit these exposures through financial market instruments. We utilize derivative instruments, primarily forward contracts with maturities of two months or less, to manage our exposure associated with anticipated cash flows and net asset and liability positions denominated in foreign currencies. Gains and losses on the forward contracts are mitigated by gains and losses on the underlying instruments. We do not use derivative financial instruments for trading purposes.

We do not anticipate any material adverse effect on our consolidated financial position, results of operations or cash flows resulting from the use of these instruments. There can be no assurance that these strategies will be effective or that transaction losses can be minimized or forecasted accurately. If a financial counterparty to any of our hedging arrangements experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses. In the current economic environment, the risk of failure of a financial party remains high.

A hypothetical 10% change in foreign currency rates would not have a material impact on our results of operations or financial position.

The following table provides information about our foreign exchange forward contracts at October 1, 2011. The table presents the weighted average contractual foreign currency exchange rates, the value of the contracts in U.S. dollars at the contract exchange rate as of the contract maturity date and fair value. The U.S. notional fair value represents the contracted amount valued at October 1, 2011 rates.

Forward contracts to sell (buy) foreign currencies for U.S. dollars (in thousands, except contract rates):

	Average Contract Rate	U.S. Notional Contract Value	U.S. Notional Fair Value
Euro	1.3583	\$(42,488 )	\$(42,103 )
British Pound Sterling	1.5795	\$4,998	\$4,932
Japanese Yen	76.8993	\$(2,351 )	\$(2,355 )
Korean Won	1,106.1000	\$7,044	\$6,591
Chinese Renminbi	6.4040	\$3,579	\$3,591
Canadian Dollar	1.0046	\$1,162	\$1,108

**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

See Item 15-(a) for an index to the Consolidated Financial Statements and Supplementary Financial Information, which are attached hereto and incorporated by reference herein. The financial statements and notes thereto can be found beginning on page 66 of this annual report.

**ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

Not applicable.

Table of Contents

ITEM 9A. CONTROLS AND PROCEDURES

Management's Evaluation of Disclosure Controls and Procedures

We have evaluated the effectiveness of the design and operation of our disclosure controls and procedures; as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as of the end of the period covered by this Annual Report ("Evaluation Date"). The controls evaluation was done under the supervision and with the participation of management, including our Chief Executive Officer and Chief Financial Officer. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded as of the Evaluation Date that our disclosure controls and procedures were effective in providing reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Securities Exchange Act of 1934, as amended, is (i) recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures.

Management's Report on Internal Control Over Financial Reporting

Management, including our Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company.

Management assessed the effectiveness of our internal control over financial reporting as of October 1, 2011, utilizing the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control-Integrated Framework. Based on the assessment by management, we determined that our internal control over financial reporting was effective as of October 1, 2011. The effectiveness of our internal control over financial reporting as of October 1, 2011 has been audited by Deloitte & Touche LLP, our independent registered public accounting firm, as stated in their report which appears below.

Inherent Limitations Over Internal Controls

Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. The Company's internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the Company's assets;  
provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that the Company's receipts and expenditures are being made only in accordance with authorizations of the Company's management and directors;
- (ii) and  
provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.
- (iii)

Management, including our CEO and CFO, does not expect that the Company's internal controls will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of internal controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Also, any evaluation of the effectiveness of controls in future periods are subject to the risk that those internal controls may become inadequate because of changes in business conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during the quarter ended October 1, 2011 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.





Table of Contents

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

To the Board of Directors and Stockholders of Coherent, Inc.:

We have audited the internal control over financial reporting of Coherent, Inc. and its subsidiaries (collectively, the "Company") as of October 1, 2011, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed by, or under the supervision of, the company's principal executive and principal financial officers, or persons performing similar functions, and effected by the company's board of directors, management, and other personnel to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of the inherent limitations of internal control over financial reporting, including the possibility of collusion or improper management override of controls, material misstatements due to error or fraud may not be prevented or detected on a timely basis. Also, projections of any evaluation of the effectiveness of the internal control over financial reporting to future periods are subject to the risk that the controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of October 1, 2011, based on the criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated financial statements as of and for the year ended October 1, 2011, of the Company and our report dated November 30, 2011, expressed an unqualified opinion on those consolidated financial statements.

/s/ DELOITTE & TOUCHE LLP

San Jose, California

November 30, 2011

**ITEM 9B. OTHER INFORMATION**

Not applicable.



Table of Contents

## PART III

## ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

Information regarding: (i) our directors will be set forth under the caption "Proposal One —Election of Directors—Nominees"; (ii) compliance with Section 16(a) of the Securities Act of 1933 will be set forth under the caption "Section 16(a) Beneficial Ownership Reporting Compliance"; (iii) the process for stockholders to nominate directors will be set forth under the caption "Proposal One—Election of Directors—Process for Recommending Candidates for Election to the Board of Directors"; (iv) our audit committee and audit committee financial expert will be set forth under the caption "Proposal One—Election of Directors—Board Meetings and Committees—Audit Committee"; in our proxy statement for use in connection with an upcoming Annual Meeting of Stockholders to be held in 2012 (the "2012 Proxy Statement") and is incorporated herein by reference or included in a Form 10-K/A as an amendment to this Form 10-K. The 2012 Proxy Statement or Form 10-K/A will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

**Business Conduct Policy**

We have adopted a worldwide Business Conduct Policy that applies to the members of our Board of Directors, executive officers and other employees. This policy is posted on our Website at [www.coherent.com](http://www.coherent.com) and may be found as follows:

1. From our main Web page, first click on "Company" and then on "corporate governance."
2. Next, click on "Business Conduct Policy."

We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of this Business Conduct Policy by posting such information on our Website, at the address and location specified above.

Stockholders may request free printed copies of our worldwide Business Conduct Policy from:  
Coherent, Inc.

Attention: Investor Relations  
5100 Patrick Henry Drive  
Santa Clara, California 95054  
Executive Officers

The name, age, position and a brief account of the business experience of our executive officers as of November 30, 2011 are set forth below:

Name	Age	Office Held
John R. Ambroseo	50	President and Chief Executive Officer
Helene Simonet	59	Executive Vice President and Chief Financial Officer
Mark Sobey	51	Executive Vice President and General Manager, Specialty Laser Systems
Luis Spinelli	63	Executive Vice President and Chief Technology Officer
Bret M. DiMarco	43	Executive Vice President, General Counsel and Corporate Secretary
Paul Sechrist	52	Executive Vice President, Worldwide Sales and Service

**John R. Ambroseo.** Mr. Ambroseo has served as our President and Chief Executive Officer as well as a member of the Board of Directors since October 2002. Mr. Ambroseo served as our Chief Operating Officer from June 2001 through September 2002. Mr. Ambroseo served as our Executive Vice President and as President and General Manager of the Coherent Photonics Group from September 2000 to June 2001. From September 1997 to September 2000, Mr. Ambroseo served as our Executive Vice President and as President and General Manager of the Coherent Laser Group. From March 1997 to September 1997, Mr. Ambroseo served as our Scientific Business Unit Manager. From August 1988, when Mr. Ambroseo joined us, until March 1997, he served as a Sales Engineer, Product Marketing Manager, National Sales Manager and Director of European Operations. Mr. Ambroseo received a Bachelor degree from SUNY-College at Purchase and a PhD in Chemistry from the University of Pennsylvania.

**Helene Simonet.** Ms. Simonet has served as our Executive Vice President and Chief Financial Officer since April 2002. Ms. Simonet served as Vice President of Finance of our former Medical Group and Vice President of Finance, Photonics Division from December 1999 to April 2002. Prior to joining Coherent, she spent over twenty years in

senior finance positions at Raychem Corporation's Division and Corporate organizations, including Vice President of Finance of the Raynet

58

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Table of Contents

Corporation. Ms. Simonet has both Master's and Bachelor degrees from the University of Leuven, Belgium.

Mark Sobey. Mr. Sobey was appointed Executive Vice President of Coherent and General Manager of Specialty Laser Systems (SLS) in April 2010. He has served as Senior Vice President and General Manager for the SLS Business Group, which primarily serves the Microelectronics and Research markets, since joining Coherent in July 2007. Prior to Coherent, Mr. Sobey has spent over 20 years in the Laser and Fiber Optics Telecommunications industries, including roles as Senior Vice President Product Management at Cymer from January 2006 through June 2007 and previously as Senior Vice President Global Sales at JDS Uniphase through October 2005. He received his PhD in Engineering and BSc in Physics, both from the University of Strathclyde in Scotland.

Luis Spinelli. Mr. Spinelli has served as our Executive Vice President and Chief Technology Officer since February 2004. Mr. Spinelli joined the Company in May 1985 and has since held various engineering and managerial positions, including Vice President, Advanced Research from April 2000 to September 2002 and Vice President, Corporate Research from September 2002 to February 2004. Mr. Spinelli has led the Advanced Research Unit from its inception in 1998, whose charter is to identify and evaluate new and emerging technologies of interest for us across a range of disciplines in the laser field. Mr. Spinelli holds a degree in Electrical Engineering from the University of Buenos Aires, Argentina with post-graduate work at the Massachusetts Institute of Technology.

Bret M. DiMarco. Mr. DiMarco has served as our Executive Vice President and General Counsel since June 2006 and our Corporate Secretary since February 2007. From February 2003 until May 2006, Mr. DiMarco was a member and from October 1995 until January 2003 was an associate at Wilson Sonsini Goodrich & Rosati, P.C., a law firm. Mr. DiMarco received a Bachelor degree from the University of California at Irvine and a Juris Doctorate degree from the Law Center at the University of Southern California. He is also an adjunct professor of law at the University of California Hastings College of the Law, teaching corporate law and mergers & acquisitions.

Paul Sechrist. Mr. Paul Sechrist was appointed Executive Vice President, Worldwide Sales and Service in March 2011. He has over 28 years of experience with Coherent, including roles as Senior Vice President and General Manager of Commercial Lasers and Components from October 2008 to March 2011, Vice President and General Manager of Specialty Laser Systems, Santa Clara from March 2008 to October 2008 and Vice President for Components from April 2005 to October 2008. Mr. Sechrist received an AA degree from San Jose City College, with Physics studies at California State University, Hayward.

**ITEM 11. EXECUTIVE COMPENSATION**

Information regarding: (i) executive officer and director compensation will be set forth under the captions "Election of Directors—Director Compensation" and "Executive Officers and Executive Compensation" and (ii) compensation committee interlocks will be set forth under the caption "Executive Officers and Executive Compensation—Compensation Committee Interlocks and Insider Participation and Committee Independence" in the 2012 Proxy Statement or included in a Form 10-K/A as an amendment to our Form 10-K for the fiscal year ended October 1, 2011. The 2012 Proxy Statement or Form 10-K/A will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

**ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

Information regarding: (i) equity compensation plan information will be set forth under the caption "Equity Compensation Plan Information"; and (ii) security ownership of certain beneficial owners and management will be set forth under the caption "Security Ownership of Certain Beneficial Owners and Management"; in our 2012 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an amendment to our Form 10-K for the fiscal year ended October 1, 2011.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required under this item will be set forth under the caption "Certain Relationships and Related Party Transactions" in our 2012 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an amendment to our Form 10-K for the fiscal year ended October 1, 2011.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Principal Accounting Fees and Services

The following table sets forth fees for services provided by Deloitte & Touche LLP, the member firms of Deloitte Touche Tohmatsu, and their respective affiliates (collectively, "Deloitte") during fiscal years 2011 and 2010:

Table of Contents

	2011	2010
Audit fees(1)	\$ 1,665,000	\$ 1,440,000
Audit-related fees	—	—
Tax fees	—	—
All other fees(2)	2,000	2,000
Total	\$ 1,667,000	\$ 1,442,000

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(1) Represents fees for professional services provided in connection with the integrated audit of our annual financial statements and internal control over financial reporting and review of our quarterly financial statements, advice on accounting matters that arose during the audit and audit services provided in connection with other statutory or regulatory filings.

(2) Represents the annual subscription for access to the Deloitte Accounting Research Tool, which is a searchable on-line accounting database (\$2,000) in both fiscal years.

#### Pre-Approval of Audit and Non-Audit Services

The Audit Committee has determined that the provision of non-audit services by Deloitte is compatible with maintaining Deloitte's independence. In accordance with its charter, the Audit Committee approves in advance all audit and non-audit services to be provided by Deloitte. In other cases, the Chairman of the Audit Committee has the delegated authority from the Committee to pre-approve certain additional services, and such pre-approvals are communicated to the full Committee at its next meeting. During fiscal year 2011, all services were pre-approved by the Audit Committee in accordance with this policy.



Table of Contents

## PART IV

## ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

## (a)1. Index to Consolidated Financial Statements

The following Consolidated Financial Statements of Coherent, Inc. and its subsidiaries are filed as part of this annual report on Form 10-K:

<u>Report of Independent Registered Public Accounting Firm</u>	<u>65</u>
<u>Consolidated Balance Sheets—October 1, 2011 and October 2, 2010</u>	<u>66</u>
<u>Consolidated Statements of Operations—Years ended October 1, 2011, October 2, 2010 and October 3, 2009</u>	<u>67</u>
<u>Consolidated Statements of Stockholders' Equity—Years ended October 1, 2011, October 2, 2010 and October 3, 2009</u>	<u>68</u>
<u>Consolidated Statements of Cash Flows—Years ended October 1, 2011, October 2, 2010 and October 3, 2009</u>	<u>69</u>
<u>Notes to Consolidated Financial Statements</u>	<u>71</u>
<u>Quarterly Financial Information (Unaudited)</u>	<u>103</u>

## 2. Consolidated Financial Statement Schedules

Financial statement schedules have been omitted because they are either not required, not applicable or the information required to be set forth therein is included in the Consolidated Financial Statements hereto.

## 3. Exhibits

Exhibit  
Numbers

3.1*	Restated and Amended Certificate of Incorporation. (Previously filed as Exhibit 3.1 to Form 10-K for the fiscal year ended September 29, 1990)
3.2*	Certificate of Amendment of Restated and Amended Certificate of Incorporation of Coherent, Inc. (Previously filed as Exhibit 3.2 to Form 10-K for the fiscal year ended September 28, 2002)
3.3*	Bylaws of Coherent, Inc. (Previously filed as Exhibit 3.3 to Form 10-Q for the fiscal quarter ended June 28, 2008)
10.1*‡	Amended and Restated Employee Stock Purchase Plan. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended June 28, 2008)
10.2*‡	Coherent Employee Retirement and Investment Plan. (Previously filed as Exhibit 10.23 to Form 8, Amendment No. 1 to Annual Report on Form 10-K for the fiscal year ended September 25, 1982)
10.3*‡	1995 Stock Plan and forms of agreement. (Previously filed as Exhibit 10.34 to Form 10-K for the fiscal year ended September 28, 1996)
10.4*	1998 Director Option Plan. (Previously filed as Appendix B to Schedule 14A filed February 28, 2006)
10.5*‡	2001 Stock Plan (Previously filed as Exhibit 10.1 to Form 10-Q for the quarter ended March 29, 2008)
10.6*‡	Change of Control Severance Plan, as amended and restated effective December 10, 2008. (Previously filed as Exhibit 10.1 to Form 10-Q for the quarter ended April 4, 2009).
10.7‡	Variable Compensation Plan, as amended.
10.8‡	Fiscal 2011 Variable Compensation Plan Payout Scale for Named Executive Officers.
10.9**‡	Fiscal 2012 Variable Compensation Plan Payout Scale for Named Executive Officers.
10.10*‡	Offer Letter to Bret DiMarco. (Previously filed as Exhibit 10.14 to Form 10-K for the year ended September 30, 2006)
10.11*‡	Supplementary Retirement Plan. (Previously filed as Exhibit 10.5 to Form 10-Q for the quarter ended April 1, 2006)
10.12*‡	2005 Deferred Compensation Plan. (Previously filed as Exhibit 10.16 to Form 10-K for the year ended September 27, 2008)
10.13*‡	

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Form of 2001 Stock Plan Terms and Conditions of Restricted Stock Units. (Previously filed as Exhibit 10.1 to Form 8-K filed on November 27, 2009)

10.14\*‡

Form of 2001 Stock Plan Amended Global Stock Option Agreement. (Previously filed as Exhibit 10.2 to Form 8-K filed on November 27, 2009)

61

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Table of Contents

10.15*	Loan Agreement by and between Coherent, Inc. and Union Bank of California, N.A. dated as of March 31, 2008. (Previously filed as Exhibit 10.24 to Form 10-K/A for the year ended September 27, 2008)
10.16*	Amendment to Union Bank Agreement dated April 29, 2010. (Previously filed as Exhibit 10.1 to Form 10-Q for the quarter ended April 3, 2010)
10.17*	Second Lease Amendment by and between Coherent, Inc. and 5200 Patrick Henry Associates LLC dated as of July 23, 2010. (Previously filed as Exhibit 10.1 to Form 10-Q for the quarter ended July 3, 2010)
10.18*	Form of Indemnification Agreement.
10.19*‡	2011 Equity Incentive Plan. (incorporated by reference to Exhibit 10.1 to the Company's Registration Statement on Form S-8 (File No. 333-174019) filed on May 6, 2011)
10.20*‡	Form of RSU Agreement for members of the Board of Directors under the Company's 2011 Equity Incentive Plan. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended July 2, 2011)
10.21*‡	Form of Option Agreement for members of the Board of Directors under the Company's 2011 Equity Incentive Plan. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended July 2, 2011)
10.22‡	Form of Performance RSU Agreement under the 2011 Equity Incentive Plan.
10.23‡	Form of Time-Based RSU Agreement under the 2011 Equity Incentive Plan.
21.1	Subsidiaries
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (see signature page)
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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\* These exhibits were previously filed with the Commission as indicated and are incorporated herein by reference.

\*\* Portions of this exhibit are redacted and confidential treatment has been requested.

‡ Identifies management contract or compensatory plans or arrangements required to be filed as an exhibit.

Table of Contents

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.

COHERENT, INC.

Date: November 30, 2011

/s/ JOHN R. AMBROSEO

By: John R. Ambroseo

President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints John R. Ambroseo and Helene Simonet, and each of them individually, as his attorney-in-fact, each with full power of substitution, for him in any and all capacities to sign any and all amendments to this Report on Form 10-K, and to file the same with, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that said attorney-in-fact, or his or her substitute, may do or cause to be done by virtue hereof.

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:

/s/ JOHN R. AMBROSEO

John R. Ambroseo  
(Director and Principal Executive Officer)

November 30, 2011  
Date

/s/ HELENE SIMONET

Helene Simonet  
(Principal Financial and Accounting Officer)

November 30, 2011  
Date

/s/ JAY T. FLATLEY

Jay T. Flatley  
(Director)

November 30, 2011  
Date

/s/ SUSAN M. JAMES

Susan M. James  
(Director)

November 30, 2011  
Date

/s/ L. WILLIAM KRAUSE

L. William Krause  
(Director)

November 30, 2011  
Date

/s/ GARRY W. ROGERSON

Garry W. Rogerson  
(Director)

November 30, 2011  
Date

/s/ LAWRENCE TOMLINSON

Lawrence Tomlinson  
(Director)

November 30, 2011  
Date

/s/ SANDEEP VIJ

Sandeep Vij  
(Director)

November 30, 2011  
Date

Table of Contents

STATEMENT OF MANAGEMENT RESPONSIBILITY

Management is responsible for the preparation, integrity, and objectivity of the Consolidated Financial Statements and other financial information included in the Company's 2011 Annual Report on Form 10-K. The Consolidated Financial Statements have been prepared in conformity with U.S. generally accepted accounting principles and reflect the effects of certain estimates and judgments made by management. It is critical for investors and other users of the Consolidated Financial Statements to have confidence that the financial information that we provide is timely, complete, relevant and accurate

Management, with oversight by the Company's Board of Directors, has established and maintains a corporate culture that requires that the Company's affairs be conducted to the highest standards of business ethics and conduct.

Management also maintains a system of internal control that is designed to provide reasonable assurance that assets are safeguarded and that transactions are properly recorded and executed in accordance with management's authorization. This system is regularly monitored through direct management review, as well as extensive audits conducted by internal auditors throughout the organization.

Our Consolidated Financial Statements as of and for the year ended October 1, 2011 have been audited by Deloitte & Touche LLP, an independent registered public accounting firm. Their audit was conducted in accordance with the standards of the Public Company Accounting Oversight Board (United States) and included an integrated audit under such standards.

The Audit Committee of the Board of Directors meets regularly with management, the internal auditors and the independent registered public accounting firm to review accounting, reporting, auditing and internal control matters.

The Audit Committee has direct and private access to both internal and external auditors.

See Item 9A for Management's Report on Internal Control Over Financing Reporting.

We are committed to enhancing shareholder value and fully understand and embrace our fiduciary oversight responsibilities. We are dedicated to ensuring that our high standards of financial accounting and reporting as well as our underlying system of internal controls are maintained. Our culture demands integrity and we have the highest confidence in our processes, internal controls, and people, who are objective in their responsibilities and operate under the highest level of ethical standards.

/s/ JOHN R. AMBROSEO

John R. Ambroseo

President and Chief Executive Officer

/s/ HELENE SIMONET

Helene Simonet

Executive Vice President and Chief Financial Officer

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of Coherent, Inc.:

We have audited the accompanying consolidated balance sheets of Coherent, Inc. and its subsidiaries (collectively, the "Company") as of October 1, 2011 and October 2, 2010, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended October 1, 2011. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of October 1, 2011 and October 2, 2010, and the results of its operations and its cash flows for each of the three years in the period ended October 1, 2011, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of October 1, 2011, based on the criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 30, 2011 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

San Jose, California  
November 30, 2011

Table of Contents

COHERENT, INC. AND SUBSIDIARIES  
 CONSOLIDATED BALANCE SHEETS  
 (In thousands, except par value)

	October 1, 2011	October 2, 2010
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 167,061	\$ 245,380
Restricted cash	—	625
Short-term investments	53,142	17,391
Accounts receivable—net of allowances of \$1,439 in 2011 and \$1,655 in 2010	141,037	110,211
Inventories	152,385	113,858
Prepaid expenses and other assets	44,964	35,002
Deferred tax assets	22,057	20,050
Total current assets	580,646	542,517
Property and equipment, net	104,504	90,339
Goodwill	75,954	70,796
Intangible assets, net	17,980	19,931
Other assets	64,182	79,521
Total assets	\$ 843,266	\$ 803,104
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Current portion of long-term obligations	\$ 15	\$ 18
Accounts payable	39,841	39,737
Income taxes payable	23,929	4,267
Other current liabilities	98,620	87,898
Total current liabilities	162,405	131,920
Long-term obligations	19	33
Other long-term liabilities	62,841	79,688
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Common stock, par value \$.01:		
Authorized—500,000 shares;		
Outstanding—23,722 shares in 2011 and 24,554 shares in 2010	236	245
Additional paid-in capital	130,250	186,078
Accumulated other comprehensive income	51,221	62,084
Retained earnings	436,294	343,056
Total stockholders' equity	618,001	591,463
Total liabilities and stockholders' equity	\$ 843,266	\$ 803,104
See accompanying Notes to Consolidated Financial Statements.		

Table of ContentsCOHERENT, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Year Ended		
	October 1, 2011	October 2, 2010	October 3, 2009
Net sales	\$ 802,834	\$ 605,067	\$ 435,882
Cost of sales	452,012	344,256	274,772
Gross profit	350,822	260,811	161,110
Operating expenses:			
Research and development	81,232	72,354	61,417
Selling, general and administrative	149,499	123,575	108,098
Impairment of goodwill	—	—	19,286
Amortization of intangible assets	8,082	8,002	7,466
Total operating expenses	238,813	203,931	196,267
Income (loss) from operations	112,009	56,880	(35,157 )
Other income (expense):			
Interest and dividend income	909	1,871	2,485
Interest expense	(147 )	(256 )	(228 )
Other—net	11,058	(516 )	(2,955 )
Total other income (expense), net	11,820	1,099	(698 )
Income (loss) before income taxes	123,829	57,979	(35,855 )
Provision for (benefit from) income taxes	30,591	21,063	(536 )
Net income (loss)	\$ 93,238	\$ 36,916	\$ (35,319 )
Net income (loss) per share:			
Basic	\$ 3.74	\$ 1.49	\$ (1.45 )
Diluted	\$ 3.66	\$ 1.47	\$ (1.45 )
Shares used in computation:			
Basic	24,924	24,718	24,281
Diluted	25,464	25,091	24,281

See accompanying Notes to Consolidated Financial Statements.



Table of ContentsCOHERENT, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Three Years in the Period Ended October 1, 2011

(In thousands)

	Common Stock Shares	Common Stock Par Value	Add. Paid-in Capital	Accum. Other Comp. Income	Retained Earnings	Total
Balances, September 27, 2008	24,191	\$241	\$177,646	\$79,089	\$341,459	\$598,435
Components of comprehensive income:						
Net loss	—	—	—	—	(35,319 )	(35,319 )
Translation adjustment, net of tax	—	—	—	1,156	—	1,156
Unrealized gain on available for sale securities, net of tax	—	—	—	16	—	16
Net loss realized on derivative instruments, net of tax	—	—	—	8	—	8
Total comprehensive loss						(34,139 )
Common stock issued under stock plans, net of shares withheld for employee taxes	264	3	3,946	—	—	3,949
Stock-based compensation	—	—	7,326	—	—	7,326
Balances, October 3, 2009	24,455	\$244	\$188,918	\$80,269	\$306,140	\$575,571
Components of comprehensive income:						
Net income	—	—	—	—	36,916	36,916
Translation adjustment, net of tax	—	—	—	(18,259 )	—	(18,259 )
Unrealized loss on available for sale securities, net of tax	—	—	—	(11 )	—	(11 )
Net loss realized on derivative instruments, net of tax	—	—	—	85	—	85
Total comprehensive income						18,731
Common stock issued under stock plans, net of shares withheld for employee taxes	1,295	13	32,214	—	—	32,227
Repurchases of Common Stock	(1,196 )	(12 )	(43,323 )	—	—	(43,335 )
Stock-based compensation	—	—	8,269	—	—	8,269
Balances, October 2, 2010	24,554	\$245	\$186,078	\$62,084	\$343,056	\$591,463
Components of comprehensive income:						
Net income	—	—	—	—	93,238	93,238
Translation adjustment, net of tax	—	—	—	(10,842 )	—	(10,842 )
Unrealized loss on available for sale securities, net of tax	—	—	—	(21 )	—	(21 )
Total comprehensive income						82,375
Common stock issued under stock plans, net of shares withheld for employee taxes	1,233	11	31,403	—	—	31,414
Tax benefit from employee stock options	—	—	290	—	—	290
Repurchases of Common Stock	(2,065 )	(20 )	(100,617 )	—	—	(100,637 )
Stock-based compensation	—	—	13,096	—	—	13,096
Balances, October 1, 2011	23,722	\$236	\$130,250	\$51,221	\$436,294	\$618,001

See accompanying Notes to Consolidated Financial Statements



Table of ContentsCOHERENT, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended		
	October 1, 2011	October 2, 2010	October 3, 2009
Cash flows from operating activities:			
Net income (loss)	\$93,238	\$36,916	\$(35,319 )
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	20,539	21,657	19,194
Amortization of intangible assets	8,082	8,002	7,466
Impairment of goodwill	—	—	19,286
Stock-based compensation	12,963	8,286	7,415
Excess tax benefit from stock-based compensation arrangements	(5,111 )	(934 )	(9 )
Non-cash gain on Finland dissolution	(6,511 )	—	—
Tax benefit from employee stock options	290	—	—
Deferred income taxes	22,089	13,287	(12,224 )
Loss on disposal of property and equipment	300	334	594
Other non-cash expense	(232 )	4,420	(228 )
Changes in assets and liabilities, net of effect of acquisitions:			
Accounts receivable	(26,185 )	(33,674 )	24,854
Inventories	(38,570 )	(14,607 )	21,412
Prepaid expenses and other assets	(8,098 )	(9,247 )	2,302
Other assets	(1,194 )	67	6,245
Accounts payable	(161 )	15,122	(4,172 )
Income taxes payable/receivable	3,982	6,454	1,481
Other current liabilities	8,712	22,838	(13,848 )
Other long-term liabilities	2,543	(108 )	(5,400 )
Net cash provided by operating activities	86,676	78,813	39,049
Cash flows from investing activities:			
Purchases of property and equipment	(37,117 )	(15,139 )	(21,627 )
Proceeds from dispositions of property and equipment	355	2,144	1,604
Purchases of available-for-sale securities	(230,992 )	(108,688 )	(106,856 )
Proceeds from sales and maturities of available-for-sale securities	195,570	133,087	67,435
Acquisition of businesses, net of cash acquired	(14,108 )	(20,745 )	—
Investment in SiOnyx	—	(2,000 )	—
Change in restricted cash	625	(625 )	2,521
Other-net	—	38	(25 )
Net cash used in investing activities	(85,667 )	(11,928 )	(56,948 )

(continued)

Table of Contents

COHERENT, INC. AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)  
 (In thousands)

	Year Ended		
	October 1, 2011	October 2, 2010	October 3, 2009
Cash flows from financing activities:			
Short-term borrowings	\$2,344	\$—	\$8
Short-term repayments	(2,344)	) —	(8 )
Cash overdrafts decrease	—	—	(470 )
Repayments of capital lease obligations	(18)	) (19	) (8 )
Repurchase of common stock	(100,637	) (43,335	) —
Issuance of common stock under employee stock option and purchase plans	34,720	33,438	4,674
Excess tax benefits from stock-based compensation arrangements	5,111	934	9
Net settlement of restricted common stock	(3,306	) (1,211	) —
Net cash provided by (used in) financing activities	(64,130	) (10,193	) 4,205
Effect of exchange rate changes on cash and cash equivalents	(15,198	) (11,262	) (182 )
Net increase (decrease) in cash and cash equivalents	(78,319	) 45,430	(13,876 )
Cash and cash equivalents, beginning of year	245,380	199,950	213,826
Cash and cash equivalents, end of year	\$167,061	\$245,380	\$199,950
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest	\$108	\$223	\$194
Income taxes	\$17,291	\$12,642	\$22,024
Cash received during the year for:			
Income taxes	\$5,250	\$9,213	\$10,333
Noncash investing and financing activities:			
Unpaid property and equipment purchases	\$1,334	\$2,076	\$696
Assets acquired under capital leases	\$—	\$43	\$—

(concluded)

See accompanying Notes to Consolidated Financial Statements

Table of Contents

COHERENT, INC. AND SUBSIDIARIES  
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. DESCRIPTION OF BUSINESS

Founded in 1966, Coherent, Inc. provides photonics-based solutions in a broad range of commercial and scientific research applications. We design, manufacture, service and market lasers, laser tools and related accessories for a diverse group of customers. Headquartered in Santa Clara, California, the Company has worldwide operations including research and development, manufacturing, sales, service and support capabilities.

2. SIGNIFICANT ACCOUNTING POLICIES

Fiscal Year

Our fiscal year ends on the Saturday closest to September 30. Fiscal years 2011, 2010 and 2009 ended on October 1, October 2, and October 3, respectively, and are referred to in these financial statements as fiscal 2011, fiscal 2010, and fiscal 2009 for convenience. Fiscal 2009 included 53 weeks; fiscal 2011 and 2010 included 52 weeks. The fiscal years of the majority of our international subsidiaries end on September 30. Accordingly, the financial statements of these subsidiaries as of that date and for the years then ended have been used for our consolidated financial statements. Management believes that the impact of the use of different year-ends is immaterial to our consolidated financial statements taken as a whole.

Use of Estimates

The preparation of consolidated financial statements in conformity with Generally Accepted Accounting Principles ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Basis of Presentation

The consolidated financial statements include the accounts of Coherent, Inc. and its majority-owned subsidiaries (collectively, "the Company", "we", "our", or "Coherent"). Intercompany balances and transactions have been eliminated. Investments in business entities in which we do not have control, but have the ability to exercise significant influence over operating and financial policies (generally 20%-50% ownership) are accounted for by the equity method.

Fair Value of Financial Instruments

The carrying amounts of certain of our financial instruments including cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate fair value due to their short maturities. Short-term investments are comprised of available-for-sale securities, which are carried at fair value. Other non-current assets include trading securities related to our deferred compensation plans, which are carried at fair value. The recorded carrying amount of our long-term obligations approximates fair value at fiscal 2011 and 2010 year-ends. Foreign exchange contracts are stated at fair value based on prevailing financial market information.

Cash Equivalents

All highly liquid investments with maturities of three months or less at the time of purchase are classified as cash equivalents.

Concentration of Credit Risk

Financial instruments that may potentially subject us to concentrations of credit risk consist principally of cash equivalents, short-term investments and accounts receivable. At fiscal 2011 year-end, the majority of our short-term investments are in corporate notes and obligations, bank certificates of deposit and federal agency obligations. Cash equivalents and short-term investments are maintained with several financial institutions and may exceed the amount of insurance provided on such balances. At October 1, 2011, we held cash and cash equivalents outside the U.S. in certain of our foreign operations totaling approximately \$145.1 million, the majority of which is denominated in the Euro. The majority of our accounts receivable are derived from sales to customers for commercial applications. We perform ongoing credit evaluations of our customers' financial condition and limit the amount of credit extended when

deemed necessary but generally require no collateral. We maintain reserves for potential credit losses. Our products are broadly distributed and there were no customers who accounted for more than 10% of accounts receivable at fiscal 2011 or fiscal 2010 year-end.

Accounts Receivable Allowances

71

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Accounts receivable allowances reflect our best estimate of probable losses inherent in our accounts receivable balances. We regularly review allowances by considering factors such as historical experience, credit quality, the age of the accounts receivable balances and current economic conditions that may affect a customer's ability to pay. Activity in accounts receivable allowance is as follows (in thousands):

	Fiscal year-end		
	2011	2010	2009
Beginning balance	\$ 1,655	\$ 2,147	\$ 2,494
Additions charged to expenses	1,329	349	1,974
Accruals resulting from acquisitions	184	33	—
Deductions from reserves	(1,729	) (874	) (2,321
Ending balance	\$ 1,439	\$ 1,655	\$ 2,147

## Inventories

Inventories are stated at the lower of cost (first-in, first-out) or market. Inventories are as follows (in thousands):

	Fiscal year-end	
	2011	2010
Purchased parts and assemblies	\$ 44,824	\$ 38,449
Work-in-process	52,457	40,010
Finished goods	55,104	35,399
	\$ 152,385	\$ 113,858

## Property and Equipment

Property and equipment are stated at cost and are depreciated or amortized using the straight-line method. Cost, accumulated depreciation and amortization, and estimated useful lives are as follows (dollars in thousands):

	Fiscal year-end		Useful Life
	2011	2010	
Land	\$ 6,288	\$ 6,100	
Buildings and improvements	62,296	60,350	5-40 years
Equipment, furniture and fixtures	194,566	187,240	3-10 years
Leasehold improvements	24,794	18,437	Lesser of useful life or terms of leases
	287,944	272,127	
Accumulated depreciation and amortization	(183,440	) (181,788	)
Property and equipment, net	\$ 104,504	\$ 90,339	

## Asset Retirement Obligations

The fair value of a liability for an asset retirement obligation is recognized in the period in which it is incurred if a reasonable estimate of fair value can be made. The fair value of the liability is added to the carrying amount of the associated asset and this additional carrying amount is depreciated over the life of the asset. All of our existing asset retirement obligations are associated with commitments to return the property to its original condition upon lease termination at various sites and costs to clean up and dispose of certain fixed assets at our Finland site. We estimated that as of fiscal 2011 year-end, gross expected future cash flows of \$2.2 million would be required to fulfill these obligations.

The following table reconciles changes in our asset retirement liability for fiscal 2011 and 2010 (in thousands):

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Asset retirement liability as of October 3, 2009	\$ 1,679
Adjustment to asset retirement obligations recognized	(29 )
Accretion recognized	93
Changes due to foreign currency exchange	(6 )
Asset retirement liability as of October 2, 2010	1,737
Payment of asset retirement obligations	(328 )
Adjustment to asset retirement obligations recognized	318
Accretion recognized	98
Changes due to foreign currency exchange	53
Asset retirement liability as of October 1, 2011	\$ 1,878

At October 1, 2011, \$1,878,000 of the asset retirement liability is included in other long-term liabilities on our consolidated balance sheets. At October 2, 2010, \$328,000 of the asset retirement liability is included in other current liabilities and \$1,409,000 is included in other long-term liabilities on our consolidated balance sheets.

Long-lived Assets

We evaluate the carrying value of long-lived assets, including intangible assets, whenever events or changes in business circumstances or our planned use of long-lived assets indicate that their carrying amounts may not be fully recoverable or that their useful lives are no longer appropriate. Reviews are performed to determine whether the carrying values of long-lived assets are impaired based on a comparison to the undiscounted expected future net cash flows. If the comparison indicates that impairment exists, long-lived assets that are classified as held and used are written down to their respective fair values. When long-lived assets are classified as held for sale, they are written down to their respective fair values less costs to sell. Significant management judgment is required in the forecast of future operating results that is used in the preparation of expected undiscounted cash flows. For fiscal years 2011, 2010 and 2009, there were no significant asset impairments recorded.

Goodwill

Goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired (see Note 8). Goodwill is tested for impairment by comparing the respective fair value with the respective carrying value of the reporting unit. Fair value is determined using the Income Approach (discounted cash flow approach) valuation methodology. Absent any impairment indicators, we perform our annual impairment tests during the fourth quarter of each fiscal year using opening balance sheet as of the first day of the fourth fiscal quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

Intangible Assets

Intangible assets, including acquired existing technology, patents, customer lists, order backlog, trade name, non-compete agreements, production know-how and in-process research and development, are amortized on a straight-line basis over estimated useful lives of one year to fifteen years.

Warranty Reserves

We provide warranties on certain of our product sales and reserves for estimated warranty costs are recorded during the period of sale. The determination of such reserves requires us to make estimates of product return rates and expected costs to repair or replace the products under warranty. We currently establish warranty reserves based on historical warranty costs for each product line. The weighted average warranty period covered is approximately 15 months. If actual return rates and/or repair and replacement costs differ significantly from our estimates, adjustments to cost of sales may be required in future periods.

Components of the reserve for warranty costs during fiscal 2011, 2010 and 2009 were as follows (in thousands):



Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

	Fiscal			
	2011	2010	2009	
Beginning balance	\$ 13,499	\$ 10,211	\$ 13,214	
Additions related to current period sales	27,900	20,466	12,573	
Warranty costs incurred in the current period	(24,671	) (17,450	) (15,461	)
Accruals resulting from acquisitions	178	160	—	
Adjustments to accruals related to prior period sales	(202	) 112	(115	)
Ending balance	\$ 16,704	\$ 13,499	\$ 10,211	

## Revenue Recognition

In October 2009, the Financial Accounting Standards Board (“FASB”) issued a new accounting standard for multiple deliverable revenue arrangements. The new standard changes the requirements for establishing separate units of accounting in a multiple element arrangement and requires the allocation of arrangement consideration to each deliverable to be based on the relative selling price. The FASB also issued a new accounting standard for certain revenue arrangements that include software elements. This new standard excludes software that is contained on a tangible product from the scope of software revenue guidance if the software is essential to the tangible product’s functionality. We prospectively adopted both these standards in the first quarter of fiscal 2011. The impact of adopting these standards was not material to net sales or our condensed consolidated financial statements for the fiscal year ended October 1, 2011. The new accounting standards for revenue recognition if applied in the same manner to the year ended October 2, 2010 would not have had a material impact on net sales or to our consolidated financial statements for that fiscal year.

Under these new standards, when a sales arrangement contains multiple elements, such as products and/or services, we allocate revenue to each element based on a selling price hierarchy. Using the selling price hierarchy, we determine the selling price of each deliverable using vendor specific objective evidence (“VSOE”), if it exists, and otherwise third-party evidence (“TPE”). If neither VSOE nor TPE of selling price exists, we use estimated selling price (“ESP”). We generally expect that we will not be able to establish TPE due to the nature of the markets in which we compete, and, as such, we typically will determine selling price using VSOE or if not available, ESP.

Our basis for establishing VSOE of a deliverable’s selling price consists of standalone sales transactions when the same or similar product or service is sold separately. However, when services are never sold separately, such as product installation services, VSOE is based on the product’s estimated installation hours based on historical experience multiplied by the standard service billing rate. In determining VSOE, we require that a substantial majority of the selling price for a product or service fall within a reasonably narrow price range, as defined by us. We also consider the geographies in which the products or services are sold, major product and service groups, and other environmental variables in determining VSOE. Absent the existence of VSOE and TPE, our determination of a deliverable’s ESP involves evaluating several factors based on the specific facts and circumstances of these arrangements, which include pricing strategy and policies driven by geographies, market conditions, competitive landscape, correlation between proportionate selling price and list price established by management having the relevant authority, and other environmental variables in which the deliverable is sold.

For multiple element arrangements which include extended maintenance contracts, we allocate and defer the amount of consideration equal to the separately stated price and recognize revenue on a straight-line basis over the contract period.

We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists, the product has been delivered or the service has been rendered, the price is fixed or determinable and collection is reasonably assured. Revenue from product sales is recorded when all of the foregoing conditions are met and risk of loss and title passes to the customer. Sales to customers are generally not subject to any price protection or return rights.

The vast majority of our sales are made to original equipment manufacturers ("OEMs"), distributors, resellers and end-users in the non-scientific market. Sales made to these customers do not require installation of the products by us and are not subject to other post-delivery obligations, except in occasional instances where we have agreed to perform installation or provide training. In those instances, we defer revenue related to installation services or training until these services have been rendered. We allocate revenue from multiple element arrangements to the various elements based upon relative fair values.

Our sales to distributors, resellers and end-user customers typically do not have customer acceptance provisions and only

Table of Contents

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

certain of our sales to OEM customers have customer acceptance provisions. Customer acceptance is generally limited to performance under our published product specifications. For the few product sales that have customer acceptance provisions because of higher than published specifications, (1) the products are tested and accepted by the customer at our site or by the customer's acceptance of the results of our testing program prior to shipment to the customer, or (2) the revenue is deferred until customer acceptance occurs.

Sales to end-users in the scientific market typically require installation and, thus, involve post-delivery obligations; however, our post-delivery installation obligations are not essential to the functionality of our products. We defer revenue related to installation services until completion of these services.

For most products, training is not provided; therefore, no post-delivery training obligation exists. However, when training is provided to our customers, it is typically priced separately and is recognized as revenue as these services are provided.

We record taxes collected on revenue-producing activities on a net basis.

Research and Development

Research and development expenses include salaries, contractor and consultant fees, supplies and materials, as well as costs related to other overhead such as depreciation, facilities, utilities and other departmental expenses. The costs we incur with respect to internally developed technology and engineering services are included in research and development expenses as incurred as they do not directly relate to any particular licensee, license agreement or license fee.

We treat third party and government funding of our research and development activity, where we are the primary beneficiary of such work conducted, as a credit to research and development cost. Amounts offset against research and development costs were not material in any of the periods presented.

Foreign Currency Translation

The functional currencies of our foreign subsidiaries are generally their respective local currencies. Accordingly, gains and losses from the translation of the financial statements of the foreign subsidiaries are reported as a separate component of accumulated other comprehensive income ("OCI"). Foreign currency transaction gains and losses are included in earnings.

Derivatives

U.S. GAAP requires that all derivatives, whether designated in hedging relationships or not, be recorded on the balance sheet at fair value. If the derivative is designated as a fair value hedge, the changes in the fair value of the derivative and of the hedged item attributable to the hedged risk are recognized in earnings. If the derivative is designated as a cash flow hedge, the effective portions of the changes in the fair value of the derivative are recorded in OCI and are recognized in the income statement when the hedged item affects earnings. Ineffective portions of changes in the fair value of cash flow hedges are recognized in other income (expense).

Our objective of holding derivatives is to minimize the risks of foreign currency fluctuation by using the most effective methods to eliminate or reduce the impact of these exposures. Principal currencies hedged include the Euro, Japanese Yen, British Pound, Korean Won, Chinese Renminbi and Canadian dollar.

Forwards not designated as hedging instruments are also used to hedge the impact of the variability in exchange rates on accounts receivable and collections denominated in certain foreign currencies. Our forward contracts have maturities of two months or less and changes in fair value of these derivatives are recognized in other income (expense).

Comprehensive Income (Loss)

Comprehensive income (loss) is defined as the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources and is presented in our Consolidated Statements of Stockholders' Equity and in Note 15, "Accumulated Other Comprehensive Income (Loss)."

Earnings Per Share

Basic earnings per share is computed based on the weighted average number of shares outstanding during the period, excluding unvested restricted stock. Diluted earnings per share is computed based on the weighted average number of shares outstanding during the period increased by the effect of dilutive employee stock awards, including stock options, restricted

75

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

stock awards and stock purchase contracts, using the treasury stock method.

The following table presents information necessary to calculate basic and diluted earnings (loss) per share (in thousands, except per share data):

	Fiscal		
	2011	2010	2009
Weighted average shares outstanding—basic (1)	24,924	24,718	24,281
Dilutive effect of employee awards	540	373	—
Weighted average shares outstanding—diluted	25,464	25,091	24,281
Net income (loss)	\$93,238	\$36,916	\$(35,319)
Net income (loss)—basic	\$3.74	\$1.49	\$(1.45)
Net income (loss)—diluted	\$3.66	\$1.47	\$(1.45)

(1) Net of unvested restricted stock

A total of 2,416, 1,221,143 and 2,880,395 potentially dilutive securities have been excluded from the dilutive share calculation for fiscal 2011, 2010 and 2009, respectively, as their effect was anti-dilutive.

**Stock-Based Compensation**

We account for stock-based compensation using the fair value of the awards granted. We estimate the fair value of stock options granted using the Black-Scholes Merton model. We value restricted stock units using the intrinsic value method. We use a Monte Carlo model to estimate the fair value of market-based performance restricted stock units. We use historical data to estimate pre-vesting option and restricted stock unit forfeitures and record stock-based compensation expense only for those options and awards that are expected to vest. We amortize the fair value of stock options and awards on a straight-line basis over the requisite service periods of the awards, which are generally the vesting periods. See Note 14 "Employee Stock Option and Benefit Plans" for a description of our stock-based employee compensation plans and the assumptions we use to calculate the fair value of stock-based employee compensation.

**Shipping and Handling Costs**

We record costs related to shipping and handling of revenue in cost of sales for all periods presented.

**Advertising Costs**

Advertising costs are expensed as incurred and were \$4.1 million, \$2.6 million and \$2.2 million in fiscal 2011, fiscal 2010 and fiscal 2009, respectively.

**Income Taxes**

As part of the process of preparing our consolidated financial statements, we are required to estimate our income tax provision (benefit) in each of the jurisdictions in which we operate. This process involves us estimating our current income tax provision (benefit) together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheets.

We account for uncertain tax issues pursuant to ASC 740-10 (formerly FASB Financial Interpretation No. 48, "Accounting for Uncertainty in Income Taxes"), which creates a single model to address accounting for uncertainty in tax positions by prescribing a minimum recognition threshold that a tax position is required to meet before being recognized in the financial statements. This standard provides a two-step approach for evaluating tax positions. The first step, recognition, occurs when a company concludes (based solely on the technical aspects of the matter) that a tax provision is more likely than not to be sustained upon examination by a taxing authority. The second step, measurement, is only considered after step one has been satisfied and measures any tax benefit at the largest amount that is deemed more likely than not to be realized upon ultimate settlement of the uncertainty. These determinations involve significant judgment by management. Tax positions that fail to qualify for initial recognition are recognized in the first subsequent interim period that they meet the more likely than not



Table of Contents

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

standard or when they are resolved through negotiation or litigation with factual interpretation, judgment and certainty. Tax laws and regulations themselves are complex and are subject to change as a result of changes in fiscal policy, changes in legislation, evolution of regulations and court filings. Therefore, the actual liability for U.S. or foreign taxes may be materially different from our estimates, which could result in the need to record additional tax liabilities or potentially to reverse previously recorded tax liabilities.

We record a valuation allowance to reduce our deferred tax assets to an amount that more likely than not will be realized. While we have considered future taxable income and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance, in the event we were to determine that we would be able to realize our deferred tax assets in the future in excess of our net recorded amount, an adjustment to the allowance for the deferred tax asset would increase income in the period such determination was made. Likewise, should we determine that we would not be able to realize all or part of our net deferred tax asset in the future, an adjustment to the allowance for the deferred tax asset would be charged to income in the period such determination was made.

Federal income taxes have not been provided for on a portion of the unremitted earnings of foreign subsidiaries because such earnings are intended to be permanently reinvested. The total amount of unremitted earnings of foreign subsidiaries for which we have not yet recorded federal income taxes was approximately \$198.7 million at fiscal 2011 year-end. In addition to federal income taxes (which are not practicably determinable), withholding taxes of approximately \$9.4 million at fiscal 2011 year-end would be payable upon repatriation of such earnings which would result in additional foreign tax credits.

Adoption of New Accounting Pronouncement and Update to Significant Accounting Policies

As discussed under "Revenue Recognition", we adopted the FASB's accounting standard for multiple deliverable revenue arrangements and the FASB's accounting standard for certain revenue arrangements that include software elements. We prospectively adopted both these standards in the first quarter of fiscal 2011. The impact of adopting these standards was not material to net sales or our condensed consolidated financial statements for the fiscal year ended October 1, 2011.

In June 2009, the FASB issued amendments to the accounting rules for variable interest entities (VIEs) and for transfers of financial assets. The new guidance eliminates the quantitative approach previously required for determining the primary beneficiary of a variable interest entity and requires ongoing qualitative reassessments of whether an enterprise is the primary beneficiary. The determination of whether a company is required to consolidate an entity is based on, among other things, an entity's purpose and design and a company's ability to direct the activities of the entity that most significantly impact the entity's economic performance. In addition, qualifying special purpose entities ("QSPE") are no longer exempt from consolidation under the amended guidance. The amendments also limit the circumstances in which a financial asset, or a portion of a financial asset, should be derecognized when the transferor has not transferred the entire original financial asset to an entity that is not consolidated with the transferor in the financial statements being presented, and/or when the transferor has continuing involvement with the transferred financial asset. We adopted these amendments in our first quarter of fiscal year 2011 and it did not have a material impact on our consolidated financial position, results of operations and cash flows.

In July 2010, the FASB issued an accounting standard update defining a milestone and determining what criteria must be met to apply the milestone method of revenue recognition for research or development transactions. The update provides guidance on the criteria which must be met to determine if the milestone method of revenue recognition is appropriate, whether a milestone is substantive and the disclosures that must be made if the method is elected. We adopted this standard on a prospective basis in our first quarter of fiscal year 2011 and it did not have a material impact on our consolidated financial position, results of operations and cash flows.

Recently Issued Accounting Pronouncements

In June 2011, the FASB issued a final standard requiring the presentation of net income and other comprehensive income in either a single continuous statement or in two separate, but consecutive, statements of net income and other comprehensive income. The new standard eliminates the option currently elected by the Company to present items of other comprehensive income in the annual statement of changes in stockholders' equity. The new requirements do not change the components of comprehensive income recognized in net income or other comprehensive income, or when an item of other comprehensive income must be reclassified to net income. Earnings per share computations do not change. The new requirements are effective for interim and annual periods beginning after December 15, 2011. Full retrospective application is required. As this standard relates only to the presentation of other comprehensive income, the adoption of this accounting standard will not have an



Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

impact on our consolidated financial position, results of operations and cash flows.

In May 2011, the FASB issued additional guidance on fair value measurements that clarifies the application of existing guidance and disclosure requirements, changes certain fair value measurement principles and requires additional disclosures about fair value measurements. The updated guidance is effective on a prospective basis for financial statements issued for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2011. The adoption of this guidance will not have a material impact on our consolidated financial position, results of operations and cash flows.

In December 2010, the FASB amended its existing guidance for goodwill and other intangible assets. This authoritative guidance modifies Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, an entity is required to perform Step 2 of the goodwill impairment test if there are qualitative factors indicating that it is more likely than not that a goodwill impairment exists. The qualitative factors are consistent with the existing guidance which requires goodwill of a reporting unit to be tested for impairment between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. This authoritative guidance becomes effective for us in fiscal 2012. The implementation of this authoritative guidance is not expected to have a material impact on our consolidated financial position, results of operations and cash flows.

## 3. RESTRUCTURING ACTIVITIES

During the second quarter of fiscal 2009, we announced our plans to close our facilities in Tampere, Finland and St. Louis, Missouri. The closure of our St. Louis site was completed in the fourth quarter of fiscal 2009. The closure of our Finland site was scheduled for completion by the end of fiscal 2010, but we delayed the closure due to increased demand for products manufactured in Finland. In the second quarter of fiscal 2011, we ceased manufacturing operations in our Finland facility and recognized a \$6.1 million gain, primarily in other income (expense), due to a non-recurring translation adjustment related to the dissolution of our Finland operations. We exited the facility in the third quarter of fiscal 2011. These closure plans resulted in charges primarily for employee termination and other exit related costs associated with a plan approved by management.

During the first quarter of fiscal 2010, we acquired the assets and certain liabilities of StockerYale, Inc's laser module product line in Montreal, Canada and transitioned those activities to other Coherent facilities in Salem, Massachusetts, Wilsonville, Oregon and Sunnyvale, California. The transfer was completed in the second quarter of fiscal 2011. These closure plans resulted in charges primarily for employee termination and other exit related costs associated with a plan approved by management.

Restructuring charges in fiscal 2011 and 2010 are recorded in cost of sales, research and development and selling, general and administrative expenses in our consolidated statements of operations.

The following table presents our current liability as accrued on our balance sheets for restructuring charges. The table sets forth an analysis of the components of the restructuring charges and payments and other deductions made against the accrual for fiscal 2011 and 2010 (in thousands):

	Severance Related	Facilities Related Charges	Other Restructuring Costs	Total
Balances, October 3, 2009	\$ 488	\$ 357	\$ 807	\$ 1,652
Provision	1,411	3,823	3,134	8,368
Payments and other	(987)	) (4,163)	) (2,638)	) (7,788)
Balances, October 2, 2010	912	17	1,303	2,232
Provision	218	—	680	898
Payments and other	(1,130)	) (17)	) (1,349)	) (2,496)

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Balances, October 1, 2011	\$—	\$—	\$634	\$634
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The current year severance related costs are primarily comprised of severance pay, outplacement services, medical and

78

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 3. RESTRUCTURING ACTIVITIES (Continued)

other related benefits for employees being terminated due to the transition of activities out of Tampere, Finland. At October 1, 2011, \$634,000 of accrued restructuring costs was included in other current liabilities.

The following table presents our restructuring charges incurred by segment:

	By Segment		Total
	Commercial Lasers and Components	Specialty Laser Systems	
Costs incurred and charged to expense in fiscal 2011	\$ 898	\$ —	\$ 898
Costs incurred and charged to expense in fiscal 2010	8,368	—	8,368
Costs incurred and charged to expense in fiscal 2009	8,674	6,763	15,437
Costs incurred and charged to expense in fiscal 2008	4,160	1,644	5,804
Cumulative costs incurred to date	\$22,100	\$ 8,407	\$ 30,507

## 4. BUSINESS COMBINATIONS

On January 5, 2011, we acquired all of the assets and certain liabilities of Hypertronics Pte Ltd for approximately \$14.5 million in cash. Hypertronics designs and manufactures laser-and vision-based tools for flat panel, storage, semiconductor and solar applications at facilities in Singapore and Malaysia. Hypertronics has been included in our Specialty Lasers and Systems segment.

Our allocation of the purchase price is as follows (in thousands):

Tangible assets	\$4,617
Goodwill	5,807
Intangible assets:	
Existing technology	3,120
In-process R&D	570
Customer lists	1,880
Trade name	410
Non-compete agreements	60
Liabilities assumed	(1,965 )
Total	\$ 14,499

The goodwill recognized from this acquisition resulted primarily from anticipated revenue growth and synergies of integrating Hypertronics scan vision technology and system capabilities with our laser technology and global sales, marketing, distribution and service network. The goodwill was included in our Specialty Lasers and Systems segment.

None of the goodwill from this purchase is deductible for tax purposes.

The identifiable intangible assets are being amortized over their respective useful lives of two to six years.

In-process research and development (“IPR&D”) consists of seven interrelated projects that will be incorporated into one product and had not yet reached technological feasibility. Acquired IPR&D assets are initially recognized at fair value and are classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. The value assigned to IPR&D was determined by considering the value of the products under development to the overall development plan, estimating the resulting net cash flows from the projects when completed and discounting the net cash flows to their present value. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be subject to periodic impairment testing. Upon

successful completion of the development process for the acquired IPR&D projects, the assets would then be considered finite-lived intangible assets and amortization of the assets

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 4. BUSINESS COMBINATIONS (Continued)

will commence. None of the projects had been completed as of October 1, 2011.

We expensed \$0.6 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations in the fiscal year ended October 1, 2011.

Results of operations for the business have been included in our consolidated financial statements subsequent to the date of acquisition and pro forma results of operations in accordance with authoritative guidance for prior periods have not been presented because the effect of the acquisition was not material to our prior period consolidated financial results.

Beam Dynamics, Inc.

On April 29, 2010, we acquired Beam Dynamics, Inc. for \$5.9 million in cash as allocated below and \$0.3 million in deferred compensation related to an employment contract, which was recognized in expense as earned. Beam Dynamics manufactures flexible laser cutting tools for the materials processing market. Beam Dynamics has been included in our Commercial Lasers and Components segment.

Our allocation of the purchase price is as follows (in thousands):

Tangible assets	\$ 1,132
Goodwill	3,841
Intangible assets:	
Existing technology	2,130
In-process R&D	650
Customer lists	360
Trade name	140
Order backlog	30
Non-compete agreements	10
Liabilities assumed	(2,371 )
Total	\$ 5,922

The goodwill recognized from this acquisition resulted primarily from access to anticipated growth in the laser tool market and was included in our Commercial Lasers and Components ("CLC") segment. None of the goodwill from this purchase is deductible for tax purposes.

The identifiable intangible assets are being amortized over their respective useful lives of one to six years.

In-process research and development ("IPR&D") consists of three development projects that have not yet reached technological feasibility. Acquired IPR&D assets are initially recognized at fair value and are classified as indefinite-lived assets until the successful completion or abandonment of the associated research and development efforts. The value assigned to IPR&D was determined by considering the value of the products under development to the overall development plan, estimating the resulting net cash flows from the projects when completed and discounting the net cash flows to their present value. During the development period, these assets will not be amortized as charges to earnings; instead these assets will be subject to periodic impairment testing. Upon successful completion of the development process for the acquired IPR&D projects, the assets would then be considered finite-lived intangible assets and amortization of the assets will commence.

We expensed \$0.2 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations for our fiscal year 2010.

During the third quarter of fiscal 2011, we paid out \$0.6 million that had been held in an escrow account to be applied towards any remaining closing costs for the acquisition and payments to the shareholders. The amount was previously included in current restricted cash on our consolidated balance sheet. As of October 1, 2011, there were no amounts

still classified as current restricted cash on our consolidated balance sheet.

Results of operations for the business have been included in our consolidated financial statements subsequent to the date

80

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 4. BUSINESS COMBINATIONS (Continued)

of acquisition and pro forma results of operations in accordance with authoritative guidance for prior periods have not been presented because the effect of the acquisition was not material to our prior period consolidated financial results.

## StockerYale, Inc.

On October 13, 2009, we acquired all the assets and certain liabilities of StockerYale, Inc. ("StockerYale")'s laser module product line in Montreal and its specialty fiber product line in Salem, New Hampshire for \$15.0 million in cash. StockerYale designs, develops and manufactures low power laser modules, light emitting diode (LED) systems and specialty optical fiber products. These assets and liabilities have been included in our Commercial Lasers and Components segment.

Our allocation of the purchase price is as follows (in thousands):

Tangible assets	\$ 9,770
Goodwill	2,580
Intangible assets:	
Existing technology	610
Production know-how	910
Customer lists	3,170
Non-compete agreements	60
Order backlog	600
Liabilities assumed	(2,700 )
Total	\$ 15,000

The goodwill recognized from this acquisition resulted primarily from anticipated increases in market share and synergies of combining these entities and was included in our CLC segment. None of the goodwill from this purchase is deductible for tax purposes.

The identifiable intangible assets are being amortized over their respective useful lives of one to seven years.

We expensed \$0.2 million of acquisition-related costs incurred as selling, general and administrative expenses in our consolidated statements of operations for our fiscal year 2010.

Results of operations for the acquired product lines have been included in our consolidated financial statements subsequent to the date of acquisition and pro forma results of operations in accordance with authoritative guidance for prior periods have not been presented because the effect of the acquisition was not material to our prior period consolidated financial results.

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 5. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES (Continued)

## 5. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES

We measure our cash equivalents and marketable securities at fair value. The fair values of our financial assets and liabilities are determined using quoted market prices of identical assets or quoted market prices of similar assets from active markets. Level 1 valuations are obtained from real-time quotes for transactions in active exchange markets involving identical assets. Level 2 valuations are obtained from quoted market prices in active markets involving similar assets. Level 3 valuations would be based on unobservable inputs to a valuation model and include our own data about assumptions market participants would use in pricing the asset or liability based on the best information available under the circumstances; as of October 1, 2011 and October 2, 2010, we did not have any assets or liabilities valued based on Level 3 valuations.

Financial assets and liabilities measured at fair value as of October 1, 2011 are summarized below (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total Fair Value
Money market fund deposits(1)	\$8,135	\$—	\$8,135
Certificates of deposit(2)	—	65,941	65,941
U.S. and international government obligations(3)	—	62,079	62,079
Corporate notes and obligations(4)	—	48,967	48,967
Foreign currency contracts(5)	—	181	181
Mutual funds—Deferred comp and supplemental plan(6)	7,830	—	7,830

(1) Included in cash and cash equivalents on the Consolidated Balance Sheet.

(2) Includes \$59,431 recorded in cash and cash equivalents and \$6,510 recorded in short-term investments on the Consolidated Balance Sheet.

(3) Includes \$60,978 recorded in cash and cash equivalents and \$1,101 recorded in short-term investments on the Consolidated Balance Sheet.

(4) Includes \$3,436 recorded in cash and cash equivalents and \$45,531 recorded in short-term investments on the Consolidated Balance Sheet.

(5) Includes \$578 recorded in prepaid expenses and other assets and \$397 recorded in other current liabilities on the Consolidated Balance Sheet (see Note 7).

(6) Includes \$2,844 recorded in prepaid expenses and other assets and \$4,986 recorded in other assets on the Consolidated Balance Sheet (see Note 14).

Financial assets and liabilities measured at fair value as of October 2, 2010 are summarized below (in thousands):

	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Total Fair Value
Money market fund deposits(1)	\$39,677	\$—	\$39,677
Certificates of deposit(1)	—	90,986	90,986
U.S. and international government obligations(2)	—	92,298	92,298
Corporate notes and obligations(3)	—	15,445	15,445
Commercial paper(4)	—	7,000	7,000
Foreign currency contracts(5)	—	1,401	1,401



Mutual funds—Deferred comp and supplemental plans(6)	6,711	—	6,711
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82

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 5. FAIR VALUE OF FINANCIAL ASSETS AND LIABILITIES (Continued)

(1) Included in cash and cash equivalents on the Consolidated Balance Sheet.

(2) Includes \$90,299 recorded in cash and cash equivalents and \$1,999 recorded in short-term investments on the Consolidated Balance Sheet.

(3) Includes \$1,303 recorded in cash and cash equivalents and \$14,142 recorded in short-term investments on the Consolidated Balance Sheet.

(4) Includes \$5,750 recorded in cash and cash equivalents and \$1,250 recorded in short-term investments on the Consolidated Balance Sheet.

(5) Includes \$1,636 recorded in prepaid expenses and other assets and \$235 recorded in other current liabilities on the Consolidated Balance Sheet (see Note 7).

(6) Includes \$2,340 recorded in prepaid expenses and other assets and \$4,371 recorded in other assets on the Consolidated Balance Sheet (see Note 14).

## 6. SHORT-TERM INVESTMENTS

We consider all highly liquid investments with maturities of three months or less at the time of purchase to be cash equivalents. Investments classified as available-for-sale are reported at fair value with unrealized gains and losses, net of related income taxes, recorded as a separate component of other comprehensive income ("OCI") in stockholders' equity until realized. Interest and amortization of premiums and discounts for debt securities are included in interest income. Gains and losses on securities sold are determined based on the specific identification method and are included in other income (expense).

Cash, cash equivalents and short-term investments consist of the following (in thousands):

	Fiscal 2011 Year-end			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	\$ 166,931	\$ 131	\$(1	) \$ 167,061
Short-term investments:				
Available-for-sale securities:				
Certificates of deposit	\$ 6,500	\$ 10	\$—	\$ 6,510
International government obligations	1,101	1	(1	) 1,101
Corporate notes and obligations	45,282	275	(26	) 45,531
Total short-term investments	\$ 52,883	\$ 286	\$(27	) \$ 53,142

	Fiscal 2010 Year-end				
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value	
Cash and cash equivalents	\$ 246,004	\$ 1	\$—	\$ 246,005	
Less: restricted cash	(625	)		(625	)
	\$ 245,379			\$ 245,380	
Short-term investments:					
Available-for-sale securities:					
Commercial paper	\$ 1,250	\$—	\$—	\$ 1,250	
U.S. Treasury and agency obligations	1,999	—	—	1,999	
Corporate notes and obligations	14,062	82	(2	) 14,142	
Total short-term investments	\$ 17,311	\$ 82	\$(2	) \$ 17,391	

The amortized cost and estimated fair value of available-for-sale investments in debt securities at fiscal 2011 and 2010 year-ends, classified as short-term investments on our consolidated balance sheet, were as follows (in thousands):



Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 6. SHORT-TERM INVESTMENTS (Continued)

	Fiscal Year-end		2010	
	2011			
	Amortized	Estimated Fair	Amortized	Estimated Fair
	Cost	Value	Cost	Value
Due in less than 1 year	\$46,383	\$46,632	\$17,307	\$17,387
Due beyond 10 years	—	—	4	4
Total investments in available-for-sale debt securities	\$46,383	\$46,632	\$17,311	\$17,391

During fiscal 2011, we received proceeds totaling \$172.6 million from the sale of available-for-sale securities and realized gross gains of less than \$0.1 million. During fiscal 2010, we received proceeds totaling \$28.4 million from the sale of available-for-sale securities and realized gross gains of less than \$0.1 million.

At October 1, 2011, gross unrealized losses on our investments with unrealized losses that are not deemed to be other-than-temporarily impaired were \$28,000 on corporate notes and obligations, certificates of deposit and government agency obligations of \$29,198,000.

## 7. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

All derivatives, whether designated in hedging relationships or not, are recorded on the balance sheet at fair value. We enter into foreign exchange forwards to minimize the risks of foreign currency fluctuation of specific assets and liabilities on the balance sheet; these are not designated as hedging instruments.

We maintain operations in various countries outside of the United States and have foreign subsidiaries that manufacture and sell our products in various global markets. The majority of our sales are transacted in U.S. dollars. However, we do generate revenues in other currencies, primarily the Euro and the Japanese Yen. As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. We attempt to limit these exposures through financial market instruments. We utilize derivative instruments, primarily forward contracts with maturities of two months or less, to manage our exposure associated with anticipated cash flows and net asset and liability positions denominated in foreign currencies. Gains and losses on the forward contracts are mitigated by gains and losses on the underlying instruments. We do not use derivative financial instruments for speculative or trading purposes. If a financial counterparty to any of our hedging arrangements experiences financial difficulties or is otherwise unable to honor the terms of the foreign currency hedge, we may experience material financial losses. For derivative instruments that are not designated as hedging instruments, gains and losses are recognized in other income (expense).

The outstanding notional contract and fair value amounts of hedge contracts, with maximum maturity of 2 months are as follows (in thousands):

	U.S. Notional Contract Value		U.S. Notional Fair Value	
	October 1, 2011	October 2, 2010	October 1, 2011	October 2, 2010
Euro currency hedge contracts:				
Purchase	\$42,488	\$25,686	\$42,103	\$27,320
Sell	—	—	—	—
Net	\$42,488	\$25,686	\$42,103	\$27,320
Other foreign currency hedge contracts:				
Purchase	\$2,351	\$4,843	\$2,355	\$4,845
Sell	(16,783)	(9,444)	(16,221)	(9,679)
Net	\$(14,432)	\$(4,601)	\$(13,866)	\$(4,834)

The location and amount of non-designated derivative instruments' loss in the Consolidated Statements of Operations for the fiscal year ended October 1, 2011 and October 2, 2010 is as follows (in thousands):

84

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 7. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

	Location of Loss Recognized in Income on Derivatives	Amount of Gain or (Loss) Recognized in Income on Derivatives Fiscal Year Ended October 1, 2011
Derivatives not designated as hedging instruments		
Foreign exchange contracts	Other income (expense)	\$ 14
		Amount of Gain or (Loss) Recognized in Income on Derivatives
	Location of Loss Recognized in Income on Derivatives	Fiscal Year Ended October 2, 2010
Derivatives not designated as hedging instruments		
Foreign exchange contracts	Other income (expense)	\$ 203

## 8. GOODWILL AND INTANGIBLE ASSETS

During the first quarter of fiscal 2009, our stock price declined substantially which, combined with expectations of declines in forecasted operating results due to the slowdown in the global economy, led the Company to conclude that a triggering event for review for potential goodwill impairment had occurred. Accordingly, as of December 27, 2008, we performed an interim goodwill impairment evaluation. Goodwill is tested for impairment first by comparing each reporting unit's fair value to its respective carrying value. If such comparison indicates a potential impairment, then the impairment is determined as the difference between the recorded value of goodwill and its fair value. The performance of this test is a two-step process.

Step 1 of the impairment test involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. If the carrying amount of a reporting unit exceeds the reporting unit's fair value, we perform Step 2 of the goodwill impairment test to determine the amount of impairment loss. Step 2 of the goodwill impairment test involves comparing the fair value of the affected reporting unit's goodwill against the carrying value of that goodwill.

The reporting units we evaluated for goodwill impairment were determined to be the same as our operating segments, Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). We determined the fair value of our reporting units for the Step 1 test using a weighting of the Income (discounted cash flow), Market and Transaction approach valuation methodologies. Management completed and reviewed the results of the Step 1 analysis and concluded that a Step 2 analysis was required only for the CLC reporting unit. Our preliminary analysis indicated that the entire balance of the goodwill in the CLC reporting unit at that date was impaired and we recorded a non-cash goodwill impairment charge of \$19.3 million in the first quarter of fiscal 2009. During the second quarter of fiscal 2009, we completed the Step 2 analysis for the CLC reporting unit as of December 27, 2008 and determined that no further adjustments for CLC were required. The estimated fair value of our SLS reporting unit exceeded its carrying value so no further impairment analysis was required for this reporting unit.

During the second quarter of fiscal 2009, our expectations of declines in forecasted operating results due to the slowdown in the global economy and the further declines in our stock price led us to conclude that a second triggering

event for review for potential goodwill impairment had occurred. Accordingly, as of April 4, 2009, we performed an interim goodwill impairment evaluation. This interim impairment evaluation utilized the same valuation techniques used in our impairment valuation in the first quarter of fiscal 2009. Based on the results of our Step 1 analysis for that period, we determined there was no additional goodwill impairment. During the remainder of fiscal 2009 and during fiscal 2010, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment. We also noted no impairment during our annual testing which was performed during the fourth quarter of fiscal 2010 using the opening balance sheet as of the first day of the fourth quarter of fiscal 2010.

Under the goodwill standards, a company may carry forward the detailed determination of the fair value of a reporting unit from one year to the next if certain criteria have been met. Those criteria include: the assets and liabilities that make up the reporting unit have not changed significantly since the most recent fair value determination, the most recent fair value determination resulted in an amount that exceeded the carrying amount of the reporting unit by a substantial margin, and based

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. GOODWILL AND INTANGIBLE ASSETS (continued)

on an analysis of events that have occurred and circumstances that have changed since the most recent fair value determination, the likelihood that a current fair value determination would be less than the current carrying amount of the reporting unit is remote.

Based on our analysis and a review of the criteria, using the opening balance sheet as of the first day of the fourth quarter of fiscal 2011, we determined that we had met the requirements of the goodwill standard for carrying forward our fair value determination from fiscal 2010, and did not perform detailed calculation of the fair value of our reporting units for fiscal 2011, but rather compared the fair values calculated in the prior year to the 2011 carrying values of our reporting units; based on our evaluation, the fair values of each of the two operating segments significantly exceeded their carrying value as of that date. Between the completion of that testing and the end of the fourth quarter of fiscal 2011, we noted no indications of impairment or triggering events to cause us to review goodwill for potential impairment.

The changes in the carrying amount of goodwill by segment for fiscal 2011 and 2010 are as follows (in thousands):

	Commercial Lasers and Components (1)	Specialty Laser Systems (2)	Total
Balance as of October 3, 2009	\$—	\$ 66,967	\$ 66,967
Additions (see Note 4)	6,421	—	6,421
Translation adjustments and other	(57	) (2,535	) (2,592
Balance as of October 2, 2010	6,364	64,432	70,796
Additions (see Note 4)	—	5,807	5,807
Translation adjustments and other	1	(650	) (649
Balance as of October 1, 2011	\$ 6,365	\$ 69,589	\$ 75,954

(1) Gross amount of goodwill for our CLC segment was \$25.7 million at October 1, 2011 and October 2, 2010. For both periods, the accumulated impairment loss for the CLC segment was \$19.3 million reflecting an impairment charge in fiscal 2009.

(2) The gross amount of goodwill for our SLS segment was \$72.0 million and \$66.8 million at October 1, 2011 and October 2, 2010, respectively. For both periods, the accumulated impairment loss for the SLS segment was \$2.4 million reflecting an impairment charge in fiscal 2003.

The components of our amortizable intangible assets are as follows (in thousands):

	Fiscal 2011 Year-end			Fiscal 2010 Year-end		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Existing technology	\$ 52,283	\$ (41,615	) \$ 10,668	\$ 56,194	\$ (43,666	) \$ 12,528
Patents	7,246	(7,220	) 26	9,852	(9,326	) 526
Order backlog	—	—	—	5,361	(5,054	) 307
Customer lists	9,807	(5,142	) 4,665	8,808	(4,635	) 4,173
Trade name	3,566	(2,504	) 1,062	3,766	(2,666	) 1,100
Non-compete agreement	837	(784	) 53	1,616	(1,583	) 33
Production know-how	910	(621	) 289	910	(296	) 614
In-process research and development	1,217	—	1,217	650	—	650
Total	\$ 75,866	\$ (57,886	) \$ 17,980	\$ 87,157	\$ (67,226	) \$ 19,931

The weighted average remaining amortization period for existing technology, patents, customer lists, trade name, non-compete agreements, production know-how and in-process research and development are approximately 3 years, less than 1 year, 3 years, 2 years, 3 years, 1 year and 3 years, respectively. Order backlog is fully amortized.



Amortization expense for intangible assets during fiscal years 2011, 2010, and 2009 was \$8.1 million, \$8.0 million and \$7.5 million, respectively, which includes \$5.5 million, \$5.5 million and \$5.8 million, respectively, for amortization of existing technology and production know-how.

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 8. GOODWILL AND INTANGIBLE ASSETS (continued)

Estimated amortization expense for the next five fiscal years and all years thereafter are as follows (in thousands):

	Estimated Amortization Expense
2012	\$6,839
2013	4,500
2014	3,366
2015	2,001
2016	1,184
Thereafter	90
Total	\$17,980

## 9. BALANCE SHEET DETAILS

Prepaid expenses and other assets consist of the following (in thousands):

	Fiscal Year-end	
	2011	2010
Prepaid and refundable income taxes	\$9,193	\$8,407
Prepaid expenses and other	35,771	26,595
Total prepaid expenses and other assets	\$44,964	\$35,002

Other assets consist of the following (in thousands):

	Fiscal Year-end	
	2011	2010
Assets related to deferred compensation arrangements (see Note 14)	\$22,737	\$21,418
Deferred tax assets	37,156	53,219
Other assets	4,289	4,884
Total other assets	\$64,182	\$79,521

On June 8, 2010, we invested \$2.0 million in SiOnyx, Inc., a privately-held company focused on shallow junction photonics, used to enhance the performance of light sensing devices used in consumer, industrial, medical and defense related applications using black silicon processing. The investment is included in other assets and is being carried on a cost basis.

Other current liabilities consist of the following (in thousands):

	Fiscal Year-end	
	2011	2010
Accrued payroll and benefits	\$39,639	\$35,716
Accrued expenses and other	12,473	9,947
Reserve for warranty	16,704	13,499
Other taxes payable	11,067	10,095
Customer deposits	3,210	2,938
Accrued restructuring charges (Note 3)	634	2,232
Deferred income	14,893	13,471
Total other current liabilities	\$98,620	\$87,898

Other long-term liabilities consist of the following (in thousands):

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 9. BALANCE SHEET DETAILS (continued)

	Fiscal Year-end	
	2011	2010
Long-term taxes payable	\$27,775	\$42,902
Deferred compensation (see Note 14)	22,685	21,927
Deferred tax liabilities	2,194	6,231
Deferred income	2,636	1,786
Asset retirement obligations liability (see Note 2)	1,878	1,409
Other long-term liabilities	5,673	5,433
Total other long-term liabilities	\$62,841	\$79,688

## 10. SHORT-TERM BORROWINGS

We have several lines of credit which allow us to borrow in the applicable local currency. We have a total of \$20.6 million of unsecured foreign lines of credit as of October 1, 2011. At October 1, 2011, we had used \$2.1 million of these available foreign lines of credit which were used in Europe during fiscal 2011 as guarantees. In addition, our domestic line of credit includes a \$40.0 million unsecured revolving credit account with Union Bank of California. The agreement, as amended, will expire on March 31, 2012 and is subject to covenants related to financial ratios and tangible net worth with which we are currently in compliance. No amounts have been drawn upon our domestic line of credit as of October 1, 2011.

## 11. LONG-TERM OBLIGATIONS

The components of long-term obligations are as follows (in thousands):

	Fiscal Year-end	
	2011	2010
Capital leases	\$34	\$51
Current portion	(15	) (18
Long-term obligations	\$19	\$33

## 12. COMMITMENTS AND CONTINGENCIES

## Commitments

We lease several of our facilities under operating leases.

Future minimum payments under our non-cancelable operating leases at October 1, 2011 are as follows (in thousands):

Fiscal	
2012	\$8,465
2013	7,039
2014	5,523
2015	4,596
2016	4,400
Thereafter	13,822
Total	\$43,845

Rent expense, exclusive of sublease income, was \$10.1 million, \$10.1 million and \$11.8 million in fiscal 2011, 2010 and 2009, respectively. Sublease income was less than \$0.0 million, \$0.1 million and \$0.1 million for fiscal years 2011, 2010 and 2009, respectively.

As of October 1, 2011, we had total purchase commitments for inventory over the next year of approximately \$71.5 million and purchase obligations for fixed assets and services of \$8.6 million compared to \$37.6 million of purchase



Table of Contents

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. COMMITMENTS AND CONTINGENCIES (continued)

commitments for inventory and \$3.6 million of purchase obligations for fixed assets and services at October 2, 2010.  
Contingencies

We are subject to legal claims and litigation arising in the ordinary course of business, such as employment or intellectual property claims, including, but not limited to, the matters described below. The outcome of any such matters is currently not determinable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position or results of operations, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

Between February 15, 2007 and March 2, 2007, three purported shareholder derivative lawsuits were filed in the United States District Court for the Northern District of California against certain of the Company's current and former officers and directors. The Company is named as a nominal defendant. The complaints generally allege that the defendants breached their fiduciary duties and violated the securities laws in connection with the granting of stock options, the accounting treatment for such grants, the issuance of allegedly misleading public statements and stock sales by certain of the individual defendants. On May 30, 2007, these lawsuits were consolidated under the caption *In re Coherent, Inc. Shareholder Derivative Litigation*, Lead Case No. C-07-0955-JF (N.D. Cal.). On June 25, 2007, the plaintiffs filed an amended consolidated complaint. The Company's Board of Directors appointed a Special Litigation Committee ("SLC") comprised of independent director Sandeep Vij to investigate and evaluate the claims asserted in the derivative litigation and to determine what action(s) should be taken with respect to the derivative litigation. On September 8, 2009, Coherent, Inc., by and through the SLC, plaintiffs, and certain of Coherent's former and current officers and directors filed with the court a Stipulation of Settlement reflecting the terms of a settlement that would resolve all claims alleged in the consolidated complaint. On September 14, 2009, the United States District Court for the Northern District of California issued an order granting preliminary approval of the settlement of the three purported shareholder derivative lawsuits. On November 20, 2009, the court held a hearing for final approval of the settlement, and on November 24, 2009, the court entered an Order and Final Judgment, which approved the settlement and dismissed the action with prejudice. Following receipt of insurance proceeds and the payment of the plaintiff attorneys' fees and expenses, we received a net cash benefit of \$2.2 million from the settlement on December 11, 2009, which was recorded in selling general and administrative expenses in the Consolidated Statement of Operations for the first quarter of fiscal 2010.

13. STOCKHOLDERS' EQUITY

On April 29, 2010, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. During fiscal 2010, we repurchased and retired 1,195,829 shares of outstanding common stock at an average price of \$36.21 per share for a total of \$43.3 million, excluding expenses. Such repurchases were accounted for as a reduction in additional paid in capital. At October 2, 2010, \$6.7 million remained authorized for repurchase under our repurchase program.

On January 26, 2011, the Board canceled this program and authorized the repurchase of up to \$75.0 million of our common stock under a new program. The timing and size of any purchases would be subject to market conditions. The program was authorized for 12 months from the date of authorization.

On February 10, 2011, we announced that the Company would repurchase up to 1,271,100 shares of our common stock through a modified "Dutch Auction" tender offer, following the completion or termination of the tender offer, terminating no later than March 11, 2011. On March 14, 2011, we completed our tender offer, repurchased and retired 454,682 shares of outstanding common stock at a price of \$59.00 per share for a total of \$26.8 million excluding expenses.

During the third and fourth quarters of fiscal 2011, we repurchased and retired 1,024,409 shares of outstanding common stock at an average price of \$47.03 per share for a total of \$48.2 million, excluding expenses.

On August 25, 2011, we announced that the Board of Directors had authorized the repurchase of up to \$50.0 million of our common stock. The timing and size of any purchases will be subject to market conditions. The program is

authorized for 12 months from the date of authorization. During fiscal 2011, we repurchased and retired 586,200 shares of outstanding common stock at an average price of \$42.67 per share for a total of \$25.0 million, excluding expenses.

All such repurchases were accounted for as a reduction in additional paid in capital. At October 1, 2011, \$25.0 million remained authorized for repurchase under our repurchase program.

14. EMPLOYEE STOCK AWARD, OPTION AND BENEFIT PLANS

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

## Deferred Compensation Plans

Under our deferred compensation plans ("plans"), eligible employees are permitted to make compensation deferrals up to established limits set under the plans and accrue income on these deferrals based on reference to changes in available investment options. While not required by the plan, the Company chooses to invest in insurance contracts and mutual funds in order to approximate the changes in the liability to the employees. These investments and the liability to the employees were as follows (in thousands):

	Fiscal Year-end	
	2011	2010
Cash surrender value of life insurance contracts	\$ 17,751	\$ 17,047
Fair value of mutual funds	7,830	6,711
Total assets	\$ 25,581	\$ 23,758
Total assets, included in:		
Prepaid expenses and other assets	\$ 2,844	\$ 2,340
Other assets	22,737	21,418
Total assets	\$ 25,581	\$ 23,758

	Fiscal Year-end	
	2011	2010
Total deferred compensation liability, included in:		
Other current liabilities	\$ 2,844	\$ 2,340
Other long-term liabilities	22,685	21,927
Total deferred compensation liability	\$ 25,529	\$ 24,267

Life insurance premiums loads, policy fees and cost of insurance that are paid from the asset investments and gains and losses from the asset investments for these plans are recorded as components of other income or expense; such amounts were a net gain of \$3.1 million (including a \$1.5 million death benefit) in fiscal year 2011, a net gain of \$0.7 million in fiscal year 2010 and a net loss of \$4.3 million in fiscal year 2009. Changes in the obligation to plan participants are recorded as a component of operating expenses and cost of sales; such amounts were an expense of \$2.6 million in fiscal year 2011, an expense of \$1.6 million in fiscal year 2010 and a benefit of \$3.6 million in fiscal year 2009. Liabilities associated with participant balances under our deferred compensation plans are affected by individual contributions and distributions made, as well as gains and losses on the participant's investment allocation election.

## Coherent Employee Retirement and Investment Plan

Under the Coherent Employee Retirement and Investment Plan, we match employee contributions to the plan up to a maximum of 4% of the employee's individual earnings. Employees become eligible for participation on their first day of employment and for Company matching contributions after completing one year of service. The Company matching contribution percentage was decreased from 6% to 4% during fiscal 2009. Our contributions (net of forfeitures) during fiscal 2011, 2010, and 2009 were \$3.0 million, \$2.6 million and \$3.4 million, respectively.

## Employee Stock Purchase Plan

We have an Employee Stock Purchase Plan ("ESPP") whereby eligible employees may authorize payroll deductions of up to 10% of their regular base salary to purchase shares at the lower of 85% of the fair market value of the common stock on the date of commencement of the offering or on the last day of the six-month offering period. During fiscal 2011, 2010 and 2009, a total of 144,147 shares, 229,172 shares and 224,226 shares, respectively, were purchased by and distributed to employees at an average price of \$34.47, \$18.50 and \$19.83 per share, respectively. At fiscal 2011 year-end, we had 226,991 shares of our common stock reserved for future issuance under the plan.

## Stock Award and Option Plans

We have a Stock Plan for which employees and non-employee directors are eligible participants. This Plan is the 2011





Table of Contents

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

Equity Incentive Plan (the "2011 Plan") which includes our options, time-based restricted stock units and market-based performance restricted stock units. In prior years, we have had a Stock Plan for which employees and service providers were eligible participants and a non-employee Directors' Stock Option Plan for which only non-employee directors were eligible participants. Those prior Plans have expired, and any future grants will be made from the 2011 Plan. Under the 2011 Plan, Coherent may grant options and awards (time-based restricted stock units and market-based performance restricted stock units) to purchase up to 6,882,000 shares of common stock, of which 6,700,191 remain available for grant at fiscal 2011 year end.

Employee options are generally exercisable between two and four years from the grant date at a price equal to the fair market value of the common stock on the date of the grant and generally vest 25% to 50% annually. The Company settles stock option exercises with newly issued shares of common stock. Grants to employees generally expire six years from the original grant date.

Director options are automatically granted to our non-employee directors. Such directors initially receive a stock option for 24,000 shares exercisable over a three-year period and an award of restricted stock units of 2,000 shares. Beginning with the annual meeting of stockholders in 2011, the annual grant for non-employee directors became 3,500 shares of restricted stock units that vest on February 15 of the calendar year following the grant.

Restricted stock awards and restricted stock units are independent of option grants and are typically subject to vesting restrictions—either time-based or performance-based conditions for vesting. Until restricted stock vests, shares (including those issuable upon vesting of the applicable restricted stock unit) are subject to forfeiture if employment terminates prior to the release of restrictions and cannot be transferred.

• The service based restricted stock awards generally vest three years from the date of grant.

• The service based restricted stock unit awards are generally subject to annual vesting over three years from the date of grant.

The market-based performance restricted stock unit award grants are generally either subject to annual vesting over three years from the date of grant or subject to a single vest measurement three years from the date of grant, depending upon achievement of performance measurements ("Performance RSUs") based on the performance of the Company's Total Shareholder Returns (as defined) compared with the performance of the Russell 2000 Index. The Company previously granted Performance RSUs during the second quarter of fiscal 2009 which had a single vesting measurement date of November 14, 2010. These RSUs would have vested anywhere between 0% and 300% of the targeted amount based upon achievement by the Company of (a) an annual revenue threshold amount and (b) adjusted EBITDA percentage targets. The Company determined that the performance target had not been met and these awards were canceled in the first quarter of fiscal 2011 with no shares vesting.

Fair Value of Stock Compensation

We recognize compensation expense for all share-based payment awards based on the fair value of such awards. The expense is recognized on a straight-line basis over the respective requisite service period of the awards.

Determining Fair Value

Stock Options

Valuation and amortization method—We estimate the fair value of stock options granted using the Black-Scholes-Merton option-pricing formula and a single option award approach. This fair value is then amortized on a straight-line basis over the requisite service periods of the awards, which is generally the vesting period.

Expected Term—The expected term represents the period that our stock-based awards are expected to be outstanding and was determined based on historical experience of similar awards, giving consideration to the contractual terms of the stock-based awards, vesting schedules and expectations of future employee behavior as influenced by changes to the terms of its stock-based awards.

Expected Volatility—Our process for computing expected volatility considers both historical volatility and market-based implied volatility; however our estimate of expected forfeitures is based on historical employee data and could differ from



Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

actual forfeitures.

**Risk-Free Interest Rate**—The risk-free interest rate used in the Black-Scholes-Merton valuation method is based on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent remaining term.

**Expected Dividend**—The expected dividend assumption is based on our current expectations about our anticipated dividend policy.

The fair values of the Company's stock options granted to employees and shares purchased under the stock purchase plan for fiscal 2011, 2010 and 2009 were estimated using the following weighted-average assumptions:

	Employee Stock Option Plans			Employee Stock Purchase Plans		
	Fiscal			Fiscal		
	2011	2010	2009	2011	2010	2009
Expected life in years	6.0	4.6	4.2	0.5	0.5	0.5
Expected volatility	36.1 %	33.0 %	48.0 %	32.8 %	33.5 %	50.7 %
Risk-free interest rate	1.1 %	2.0 %	2.0 %	0.1 %	0.2 %	0.8 %
Expected dividends	—	—	—	—	—	—
Weighted average fair value per share	\$16.26	\$8.27	\$8.95	\$12.50	\$7.27	\$6.50

**Time-Based Restricted Stock Units**

Time-based restricted stock units are fair valued at the closing market price on the date of grant.

**Market-Based Performance Restricted Stock Units**

During fiscal 2011, we granted market-based performance restricted stock units to officers and certain employees. The performance stock unit agreements provide for the award of performance stock units with each unit representing the right to receive one share of Coherent, Inc. common stock to be issued after the applicable award period. The final number of units awarded for this grant will be determined as of vesting dates in November 2011, November 2012 and November 2013, based upon our total shareholder return over the performance period compared to the Russell 2000 Index and could range from a minimum of no units to a maximum of twice the initial award. The weighted average fair value for these performance units was \$49.37 and was determined using a Monte Carlo simulation model incorporating the following weighted average assumptions:

Risk-free interest rate	0.65 %
Volatility	38.8 %

We recognize the estimated cost of these awards, as determined under the simulation model, over the related service period, with no adjustment in future periods based upon the actual shareholder return over the performance period.

**Stock Compensation Expense**

The following table shows total stock-based compensation expense included in the Consolidated Statements of Operations for fiscal 2011, 2010 and 2009 (in thousands):

	Fiscal 2011	Fiscal 2010	Fiscal 2009
Cost of sales	\$1,331	\$949	\$753
Research and development	1,474	1,174	933
Selling, general and administrative	10,158	6,333	5,199
Income tax benefit	(3,802)	(1,610)	(1,084)
	\$9,161	\$6,846	\$5,801

Total stock-based compensation cost capitalized as part of inventory during fiscal 2011 was \$1.5 million. \$1.3 million was amortized into income during fiscal 2011, which includes amounts capitalized in fiscal 2011 and amounts carried over



Table of Contents

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

from fiscal 2010. Total stock-based compensation cost capitalized as part of inventory during fiscal 2010 was \$0.9 million. \$0.9 million was amortized into income during fiscal 2010, which includes amounts capitalized in fiscal 2010 and amounts carried over from fiscal 2009. Management has made an estimate of expected forfeitures and is recognizing compensation costs only for those equity awards expected to vest.

At fiscal 2011 year-end, the total compensation cost related to unvested stock-based awards granted to employees under the Company's stock option and award plans but not yet recognized was approximately \$12.0 million, net of estimated forfeitures of \$1.2 million. This cost will be amortized on a straight-line basis over a weighted-average period of approximately 1.3 years and will be adjusted for subsequent changes in estimated forfeitures.

At fiscal 2011 year-end, the total compensation cost related to options to purchase common shares under the ESPP but not yet recognized was approximately \$0.1 million. This cost will be amortized on a straight-line basis over a weighted-average period of approximately one month.

The stock option exercise tax benefits reported in the statement of cash flows results from the excess tax benefits arising from tax deductions in excess of the stock-based compensation cost recognized, determined on a grant-by-grant basis. During fiscal 2011 and fiscal 2010, we recorded approximately \$5.1 million and \$0.9 million, respectively, of excess tax benefits as cash flows from financing activities.

During fiscal 2010, we recorded cash-based compensation expense of \$0.3 million for cash payments to employees for options that were not able to be exercised due to the internal stock option investigation. In addition, we recorded compensation expense of \$0.5 million in fiscal 2009 for tax payments to be made to United States and United Kingdom tax authorities on behalf of employees in connection with discounted options previously exercised, for the adverse tax consequences associated with these discount options.

**Stock Options & Awards Activity**

The following is a summary of option activity for our Stock Option Plans for fiscal 2011, 2010 and 2009 (in thousands, except per share amounts and remaining contractual term in years):

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

	Number of Shares	Weighted Average Exercise Price Per Share	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding at September 28, 2008	2,880	\$ 30.31		
Granted	499	22.30		
Exercised	(9	) 25.37		
Forfeitures	(26	) 25.94		
Expirations	(850	) 28.34		
Outstanding at October 3, 2009	2,494	\$ 29.44	3.4	\$ 562
Exercisable at October 3, 2009	1,968	\$ 31.23	2.7	\$ 147
Outstanding at October 3, 2009	2,494	\$ 29.44		
Granted	476	26.59		
Exercised	(1,004	) 29.09		
Forfeitures	(38	) 24.66		
Expirations	(35	) 31.95		
Outstanding at October 2, 2010	1,893	\$ 28.96	4.0	\$ 21,279
Exercisable at October 2, 2010	1,118	\$ 31.69	2.8	\$ 9,520
Outstanding at October 2, 2010	1,893	\$ 28.96		
Granted	24	44.74		
Exercised	(975	) 30.51		
Forfeitures	(21	) 24.97		
Expirations	(4	) 33.95		
Outstanding at October 1, 2011	917	\$ 27.80	4.2	\$ 13,952
Vested and expected to vest at October 1, 2011	907	\$ 27.76	4.2	\$ 13,834
Exercisable at October 1, 2011	463	\$ 29.19	3.5	\$ 6,378

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying options and the quoted price of our common stock for in-the-money options. During fiscal 2011, 2010 and 2009, the aggregate intrinsic value of options exercised under the Company's stock option plans were \$18.6 million, \$6.0 million and \$0.1 million, respectively, determined as of the date of option exercise.

The following table summarizes information about stock options outstanding at fiscal 2011 year-end:

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 14. EMPLOYEE STOCK OPTION AND BENEFIT PLANS (continued)

Range of Exercise Prices	Options Outstanding		Weighted Average Remaining Contractual Life (Years)	Options Exercisable	
	Number of Shares	Weighted Average Exercise Price per Share		Number of Shares	Weighted Average Exercise Price per Share
\$15.21 - \$22.98	47,884	\$ 18.55	6.73	34,600	\$ 18.08
\$23.16 - \$23.16	186,852	23.16	3.13	62,483	23.16
\$26.16 - \$26.16	347,578	26.16	5.14	72,291	26.16
\$27.93 - \$32.02	54,800	30.21	7.49	39,800	29.54
\$32.10 - \$32.10	27,650	32.10	0.70	27,650	32.10
\$32.95 - \$32.95	201,460	32.95	2.01	201,460	32.95
\$33.71 - \$33.71	12,000	33.71	3.52	12,000	33.71
\$35.01 - \$35.01	12,000	35.01	4.49	12,000	35.01
\$35.36 - \$35.36	3,000	35.36	5.67	1,000	35.36
\$44.74 - \$44.74	24,000	44.74	9.97	—	—
\$15.21 - \$44.74	917,224	\$ 27.80	4.23	463,284	\$ 29.19

There were 1,893,191 and 1,967,520 options exercisable as of fiscal 2010 and 2009 year-ends with weighted average exercise prices of \$28.96 per share and \$31.23 per share, respectively.

The following table summarizes our restricted stock award and restricted stock unit activity for fiscal 2011, 2010 and 2009 (in thousands, except per share amounts):

	Time Based Restricted Stock Units		Market-Based Performance Restricted Stock Units	
	Number of Shares(1)	Weighted Average Grant Date Fair Value	Number of Shares(2)	Weighted Average Grant Date Fair Value
Nonvested stock at September 27, 2008	341	\$ 29.70	—	\$ —
Granted	178	22.38	—	—
Vested	(112)	) 30.72	—	—
Forfeited	(50)	) 30.22	—	—
Nonvested stock at October 3, 2009	357	\$ 25.66	—	\$ —
Granted	245	26.73	—	—
Vested	(104)	) 25.87	—	—
Forfeited	(17)	) 23.87	—	—
Nonvested stock at October 2, 2010	481	\$ 26.22	—	\$ —
Granted	191	45.44	101	49.77
Vested	(183)	) 26.17	—	—
Forfeited	(85)	) 29.20	—	—
Nonvested stock at October 1, 2011	404	\$ 34.71	101	\$ 49.77

(1) Service-based restricted stock vested during each fiscal year

(2) Performance-based awards and units included at 100% of target goal; under the terms of the awards, the recipient may earn between 0% and 200% of the award.

95

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. INCOME TAXES (continued)

## 17. INCOME TAXES

The provision for (benefit from) income taxes on income (loss) before income taxes consists of the following (in thousands):

	Fiscal		
	2011	2010	2009
Currently payable:			
Federal	\$ (14,408	) \$ (7,776	) \$ 735
State	677	(551	) 103
Foreign	31,098	17,967	10,154
	17,367	9,640	10,992
Deferred:			
Federal	10,325	10,897	(10,126
State	2,358	1,418	(537
Foreign	541	(892	) (865
	13,224	11,423	(11,528
Provision for (benefit from) income taxes	\$ 30,591	\$ 21,063	\$ (536

The components of income (loss) before income taxes consist of (in thousands):

	Fiscal		
	2011	2010	2009
United States	\$ 32,993	\$ 9,004	\$ (56,043
Foreign	90,836	48,975	20,188
Income (loss) before income taxes	\$ 123,829	\$ 57,979	\$ (35,855

The reconciliation of the income tax expense (benefit) at the U.S. Federal statutory rate (35% in fiscal years 2011, 2010 and 2009) to actual income tax expense (benefit) is as follows (in thousands):

	Fiscal		
	2011	2010	2009
Federal statutory tax expense (benefit)	\$ 43,340	\$ 20,293	\$ (12,549
Valuation allowance	1,456	569	6,756
Foreign taxes at rates less than U.S. rates, net	(2,818	) (202	) (403
Currency translation adjustments recognized	(2,424	) (490	) —
Stock-based compensation	885	1,313	1,875
State income taxes, net of federal income tax benefit	2,409	1,104	(1,376
Research and development credit	(2,752	) (824	) (2,525
Impairment of goodwill	—	—	6,750
Deferred compensation	(759	) (210	) 944
Release of unrecognized tax benefits	(7,090	) (84	) —
Release of interest accrued for unrecognized tax benefits	(2,672	) (1,241	) —
Other	1,016	835	(8
Provision for (benefit from) income taxes	\$ 30,591	\$ 21,063	\$ (536
Effective tax rate	24.7	% 36.3	% 1.5

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. INCOME TAXES (continued)

The significant components of deferred tax assets and liabilities were (in thousands):

	Fiscal year-end	
	2011	2010
Deferred tax assets:		
Reserves and accruals not currently deductible	\$ 26,580	\$ 27,229
Operating loss carryforwards and tax credits	55,950	61,033
Capital loss carryforwards	409	408
Deferred service revenue	2,018	2,095
Depreciation and amortization	1,604	2,778
Inventory capitalization	1,795	910
Stock-based compensation	6,162	7,369
Competent authority offset to transfer pricing tax reserves	9,513	16,610
Accumulated translation adjustment	507	—
Other	137	(1,107)
	104,675	117,325
Valuation allowance	(8,831)	(7,377)
	95,844	109,948
Deferred tax liabilities:		
Gain on issuance of stock by subsidiary	21,131	22,660
Depreciation and amortization	9,149	6,755
Accumulated translation adjustment	—	4,221
Other	11,188	11,274
	41,468	44,910
Net deferred tax assets	\$ 54,376	\$ 65,038

In determining our fiscal 2011, 2010 and 2009 tax provisions under ASC Subtopic 740, "Income Taxes", we calculated the deferred tax assets and liabilities for each separate tax entity. We then considered a number of factors including the positive and negative evidence regarding the realization of our deferred tax assets to determine whether a valuation allowance should be recognized with respect to our deferred tax assets. We determined that a valuation allowance was appropriate for a portion of the deferred tax assets of our California research and development tax credits, foreign tax attributes and net operating losses and capital loss carryforwards at fiscal 2011, 2010 and 2009 year-ends.

During fiscal 2011, we increased our valuation allowance on deferred tax assets by \$1.5 million to \$8.8 million, primarily due to the reduced ability to utilize foreign tax attributes and net operating losses and the reduced ability to utilize California research and development tax credits as a result of releasing net unrecognized tax benefits under ASC 740-10 that supported the credits.

The net deferred tax asset is classified on the consolidated balance sheets as follows (in thousands):

Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. INCOME TAXES (continued)

	Fiscal year-end	
	2011	2010
Current deferred income tax assets	\$22,057	\$20,050
Current deferred income tax liabilities	(2,643	) (2,000
Non-current deferred income tax assets	37,156	53,219
Non-current deferred income tax liabilities	(2,194	) (6,231
Net deferred tax assets	\$54,376	\$65,038

We have various tax attribute carryforwards which include the following:

Foreign net operating loss carryforwards are \$11.4 million, of which \$9.3 million have no expiration date and of which \$2.0 million will expire in fiscal years 2019 to 2030. A valuation allowance totaling \$11.2 million has been recorded against the foreign net operating loss carryforwards since the recovery of the carryforwards are uncertain. Federal capital loss carryforwards of \$1.0 million which will expire in fiscal year 2012 to 2015. State capital loss carryforwards of \$1.0 million which will expire in fiscal 2012 to 2015. Full valuation allowances have been recorded against the federal capital loss and the state capital loss carryforwards since the recovery of the carryforwards are uncertain.

Federal R&D credit carryforwards of \$10.9 million which will expire in fiscal years 2025 to 2031. California R&D credit carryforwards of \$15.1 million that have no expiration date. A valuation allowance totaling \$4.4 million, net of federal benefit, has been recorded against California R&D credit carryforwards since the recovery of the carryforwards are uncertain.

Federal foreign tax credit carryforwards of \$17.5 million which will expire in fiscal years 2016 to 2019.

Included in the net deferred tax asset balance is \$0.5 million of deferred tax liabilities related to the currency translation adjustment. The associated tax expenses are recorded as a part of other comprehensive income.

The Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010 ("Act"), was enacted on December 17, 2010. Under the Act, the federal research and development credit was retroactively extended for amounts paid or incurred after December 31, 2009 through December 31, 2011. The effects of the change in the tax law are recognized in our first quarter of fiscal 2011, which is the quarter that the law was enacted.

In addition to the federal legislation, the state of California approved its 2010-2011 budget on October 8, 2010 that includes modifications to the tax law provisions that were previously set to become effective with tax years beginning on or after January 1, 2011. Accordingly, we were able to benefit from additional research and development tax credits in fiscal year 2011 that were previously limited.

We are subject to taxation and file income tax returns in the U.S. federal jurisdiction and in many state and foreign jurisdictions. For U.S. federal income tax purposes, all years prior to 2005 are closed. The IRS audited the research and development credits generated in the years 1999 through 2001 and carried forward to future years. We received a notice of proposed adjustment ("NOPA") from the IRS in October 2008 to decrease the amount of research and development credits generated in years 2000 and 2001. We signed a Closing Agreement with the IRS which allows additional research and development credits for the years 2000 and 2001, respectively. During the fourth quarter of fiscal 2011, the Joint Committee on Taxation approved this agreement. We provided adequate tax reserves for adjustments to these research and development credits for the years 2000 and 2001. This settlement resulted in the closure of U.S. federal statutes of limitations for years through 2004 and we released net unrecognized tax benefits under ASC 740-10 and related interest of approximately \$9.7 million that affected the Company's effective tax rate for fiscal year 2011. In our major state jurisdictions and our major foreign jurisdictions, the years subsequent to 2000 and 2004, respectively, currently remain open and could be subject to examination by the taxing authorities. We believe that we have provided adequate reserves for any adjustments that may be determined by the tax authorities.

As of October 1, 2011, the total amount of gross unrecognized tax benefits was \$33.7 million, of which \$19.7 million, if recognized, would affect our effective tax rate. As of October 2, 2010, we recorded gross unrecognized tax benefits of \$50.1



Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 17. INCOME TAXES (continued)

million of which \$27.9 million, if recognized, would affect our effective tax rate. Our total gross unrecognized tax benefit was classified as long-term taxes payable in the consolidated balance sheets. We include interest and penalties related to unrecognized tax benefits within the provision for income taxes. As of October 1, 2011, the total amount of gross interest and penalties accrued was \$3.4 million, which is classified as long-term taxes payable in the consolidated balance sheets. As of October 2, 2010, we had accrued \$6.9 million for the gross interest and penalties relating to the gross unrecognized tax benefits.

Management believes that it has adequately provided for any adjustments that may result from tax examinations. The Company regularly engages in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. It is reasonably possible that certain federal, foreign and state tax matters may be concluded in the next 12 months. The Company estimates that the net unrecognized tax benefits and related interest at October 1, 2011 could be reduced by approximately \$1.0 million to \$2.0 million in the next 12 months.

A reconciliation of the change in gross unrecognized tax benefits, excluding interest and penalties, is as follows (in thousands):

	Fiscal year-end		
	2011	2010	2009
Balance as of the beginning of the year	\$ 43,254	\$ 50,370	\$ 45,211
Tax positions related to current year:			
Additions	739	646	1,610
Reductions	—	—	—
Tax positions related to prior year:			
Additions	496	—	3,549
Reductions	(1,125)	(6,607)	—
Settlements	(913)	(874)	—
Lapses in statutes of limitations	(12,150)	(281)	—
Balance as of end of year	\$ 30,301	\$ 43,254	\$ 50,370

The decrease in liabilities for unrecognized tax benefits from \$43.3 million to \$30.3 million resulted in a reduction of \$13.0 million in our gross uncertain tax positions. The IRS settlement resulted in the closure of U.S. federal statutes of limitations for years through 2004. The decrease in liabilities for unrecognized tax benefits related to the closure of U.S. federal statutes of limitations for years through 2004 is \$12.2 million. We also recorded an offsetting reduction in deferred tax assets, primarily related to competent authority offsets for transfer pricing adjustments. As a result, the impact on our effective tax rate for fiscal 2011 is \$7.1 million excluding related interest.

A summary of the fiscal tax years that remain subject to examination, as of October 1, 2011, for our major tax jurisdictions is:

United States—Federal	2005—forward
United States—Various States	2001—forward
Netherlands	2006—forward
Germany	2006—forward
Japan	2005—forward
United Kingdom	2010—forward

## 18. SEGMENT AND GEOGRAPHIC INFORMATION

We are organized into two reportable operating segments: Commercial Lasers and Components ("CLC") and Specialty Lasers and Systems ("SLS"). This segmentation reflects the go-to-market strategies for various products and markets. While both segments work to deliver cost-effective solutions, CLC focuses on higher volume products that are offered in set configurations. The product architectures are designed for easy exchange at the point of use such that product service and repairs are based upon advanced replacement and depot (i.e., factory) repair. CLC's primary

markets include OEM components

100

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Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 18. SEGMENT AND GEOGRAPHIC INFORMATION (continued)

and instrumentation and materials processing. SLS develops and manufacturers configurable, advanced-performance products largely serving the microelectronics and scientific research markets. The size and complexity of many of our SLS products require service to be performed at the customer site by factory-trained field service engineers.

We have identified CLC and SLS as operating segments for which discrete financial information was available. Both units have dedicated engineering, manufacturing, product business management and product line management functions. A small portion of our outside revenue is attributable to projects and recently developed products for which a segment has not yet been determined. The associated direct and indirect costs are presented in the category of Corporate and other, along with other corporate costs as described below.

Our Chief Executive Officer has been identified as the chief operating decision maker (CODM) as he assesses the performance of the segments and decides how to allocate resources to the segments. Income (loss) from operations is the measure of profit and loss that our CODM uses to assess performance and make decisions. As assets are not a measure used to assess the performance of the company by the CODM, asset information is not tracked or compiled by segment and is not available to be reported in our disclosures. Income (loss) from operations represents the sales less the cost of sales and direct operating expenses incurred within the operating segments as well as allocated expenses such as shared sales and manufacturing costs. We do not allocate to our operating segments certain operating expenses, which we manage separately at the corporate level. These unallocated costs include stock-based compensation, corporate functions (certain research and development, management, finance, legal and human resources) and are included in the results below under Corporate and other in the reconciliation of operating results. Management does not consider unallocated Corporate and other costs in its measurement of segment performance. The following table provides sales and income (loss) from operations for our operating segments (in thousands):

	Fiscal		
	2011	2010	2009
Net sales:			
Commercial Lasers and Components	\$ 283,098	\$ 208,691	\$ 125,619
Specialty Laser Systems	519,736	396,276	310,163
Corporate and other	—	100	100
Total net sales	\$ 802,834	\$ 605,067	\$ 435,882
Income (loss) from operations:			
Commercial Lasers and Components	\$ 37,709	\$ 2,472	\$ (45,240 )
Specialty Laser Systems	116,383	85,002	31,751
Corporate and other	(42,083 )	(30,594 )	(21,668 )
Total income (loss) from operations	\$ 112,009	\$ 56,880	\$ (35,157 )

The following table provides a reconciliation of our total income (loss) from operations to net income (loss) (in thousands):

	Fiscal		
Reconciliation of Income (Loss) From Operations to Net Income (Loss)	2011	2010	2009
Total income (loss) from operations	\$ 112,009	\$ 56,880	\$ (35,157 )
Total other income (expense), net	11,820	1,099	(698 )
Income (loss) before income taxes	123,829	57,979	(35,855 )
Provision for (benefit from) income taxes	30,591	21,063	(536 )
Net Income (loss)	\$ 93,238	\$ 36,916	\$ (35,319 )

## Geographic Information

Our foreign operations consist primarily of manufacturing facilities in Europe and sales offices in Europe and Asia-Pacific. Sales, marketing and customer service activities are conducted through sales subsidiaries throughout the world. Geographic sales information for fiscal 2011, 2010 and 2009 is based on the location of the end customer.

Geographic long-





Table of Contents

## COHERENT, INC. AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

## 18. SEGMENT AND GEOGRAPHIC INFORMATION (continued)

lived asset information presented below is based on the physical location of the assets at the end of each year.

Sales to unaffiliated customers are as follows (in thousands):

SALES	Fiscal		
	2011	2010	2009
United States	\$ 208,868	\$ 196,633	\$ 148,982
Foreign countries:			
Japan	166,911	103,009	79,709
South Korea	117,918	52,623	19,498
Germany	100,759	88,518	72,732
Europe, other	79,751	52,066	48,575
Asia-Pacific, other	71,813	63,896	41,308
Rest of World	56,814	48,322	25,078
Total foreign countries sales	593,966	408,434	286,900
Total sales	\$ 802,834	\$ 605,067	\$ 435,882

Long-lived assets, which include all non-current assets other than goodwill, intangibles and deferred taxes, by geographic region, are as follows (in thousands):

LONG-LIVED ASSETS	Fiscal Year-end	
	2011	2010
United States	\$ 81,955	\$ 82,776
Foreign countries:		
Germany	39,832	26,561
Europe, other	3,189	2,795
Asia-Pacific	4,550	2,506
Total foreign countries long-lived assets	47,571	31,862
Total long-lived assets	\$ 129,526	\$ 114,638

For fiscal 2011, 2010 and 2009, no single customer accounted for 10% or more of total net sales.

## 19. SUBSEQUENT EVENTS

On November 15, 2011, we entered into a lease of approximately 33,000 square feet of buildings to be used for the creation of a customer service center in Yongin-si, South Korea. The lease, with annual rent of approximately \$250,000, has a term of approximately six years with a four year extension.

Table of Contents

## QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized quarterly financial data for the years ended October 1, 2011 and October 2, 2010 are as follows (in thousands, except per share amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	
Fiscal 2011:					
Net sales	\$ 183,111	\$ 200,880	\$ 210,882	\$ 207,961	
Gross profit	82,394	88,769	90,162	89,497	
Net income	19,113	23,723	(1) 19,022	31,380	(2)
Net income per basic share	\$0.77	\$0.94	\$0.76	\$1.27	
Net income per diluted share	\$0.76	\$0.92	\$0.74	\$1.25	
Fiscal 2010:					
Net sales	\$ 122,815	\$ 149,157	\$ 166,697	\$ 166,398	
Gross profit	51,032	65,613	74,347	69,819	
Net loss	4,179	(3) 8,480	(4) 14,404	(5) 9,853	(6)
Net loss per basic share	\$0.17	\$0.34	\$0.58	\$0.40	
Net loss per diluted share	\$0.17	\$0.34	\$0.57	\$0.39	

The second quarter of fiscal 2011 includes \$5,918 of after tax gain from the dissolution of our Finland operations, (1) of which a charge of \$593 is recorded in cost of sales and a benefit of \$6,511 is recorded in other income (expense), net and a \$1,549 increase in valuation allowances against deferred tax assets.

(2) The fourth quarter of fiscal 2011 includes a \$9,686 benefit from the release of tax reserves and related interest as a result of an IRS settlement and the closure of open tax years.

The first quarter of fiscal 2010 includes \$813 of after tax restructuring costs primarily related to the transition of (3) activities out of Montreal, Canada, and Tampere, Finland and \$1,438 after tax net payment from the settlement of litigation resulting from our internal stock option investigation.

(4) The second quarter of fiscal 2010 includes \$978 of after tax restructuring costs primarily related to the transition of activities out of Montreal, Canada, and Tampere, Finland.

(5) The third quarter of fiscal 2010 includes \$786 of after tax restructuring costs primarily related to the transition of activities out of Montreal, Canada, and Tampere, Finland.

(6) The fourth quarter of fiscal 2010 includes \$3,209 of after tax restructuring costs primarily related to the loss on the sale of our Finland facility.

Table of Contents

INDEX TO EXHIBITS

Sequentially

Exhibit Number	Exhibit
10.7‡	Variable Compensation Plan, as amended
10.8‡	Fiscal 2011 Variable Compensation Plan Payout Scale for Named Executive Officers
10.9‡**	Fiscal 2012 Variable Compensation Plan Payout Scale for Named Executive Officers
10.22‡	Form of Performance RSU Agreement under the 2011 Equity Incentive Plan.
10.23‡	Form of Time-Based RSU Agreement under the 2011 Equity Incentive Plan.
21.1	Subsidiaries
23.1	Consent of Independent Registered Public Accounting Firm
24.1	Power of Attorney (see signature page)
31.1	Certification of Chief Executive Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Exchange Act Rule 13a-14(a)/15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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\*\* Portions of this exhibit are redacted and confidential treatment has been requested.

‡ Identifies management contract or compensatory plans or arrangements required to be filed as an exhibit. All other exhibits required to be filed as part of this report have been incorporated by reference. See item 15 for a complete index of such exhibits.