2017 ANNUAL REPORT

ANNUAL REPORT, PROXY STATEMENT & NOTICE OF ANNUAL MEETING

DEAR SHAREHOLDERS, CUSTOMERS & EMPLOYEES

At the outset of fiscal 2017, Coherent was poised to capitalize upon the proliferation of OLED technology in the smartphone industry and the completion of our acquisition of Rofin-Sinar. We are delighted to report that the company delivered on both. We further benefitted from strong demand across the remainder of our commercial markets. The end result is that sales nearly doubled and profits (i.e., earnings per share) roughly tripled compared to the records set in the prior fiscal year. We also set a new record for bookings, taking in $2.03 billion in new orders. With a continued favorable demand environment, these orders position us for another year of strong performance in fiscal 2018.

Microelectronics was our largest market in fiscal 2017. The biggest storyline was the buildout of OLED production capacity to support the smartphone industry. OLED production relies upon a variety of production technologies including excimer laser annealing of the transistor backplane that contributes to the overall clarity, brightness and electrical efficiency of OLEDs. We have built an enviable market position in annealing with our Vyper™-series excimer lasers and Linebeam optical systems, which led to significant year-on-year growth for systems and service. The outlook for fiscal 2018 is equally bright, as we have entered the new fiscal year with record backlog for FPD annealing systems. Panel manufacturers are shifting their focus to higher throughput tools utilizing Linebeam 1000 and Linebeam 1500 systems with average selling prices of $10 million and $18.5 million, respectively. Each month, more systems transition from their initial warranty period to paid service. These trends, along with a number of projected new OLED fabs, will require expansion of our production capacity for the second time in the last three years.

Our lasers are playing a broader role in smartphone production than just annealing. The emergence of new materials from flexible substrates to glass housings requires new manufacturing techniques that provide precision and speed and avoid post-processing steps. Lasers satisfy these requirements quite well, leading to over $70 million of orders in fiscal 2017 for our HyperRapid™ and Diamond Series lasers that were used in

smartphone packaging applications. We expect this trend to continue as more manufacturers adopt similar materials and methods in the upcoming product releases.

Investments in the semiconductor capital equipment market, where we are the leading supplier of lasers for inspection and metrology, have been rising steadily since 2010. Several factors have contributed to the growth, including increased demand for memory, communications, logic/processor and RF chips used in everything from smartphones to IoT (Internet of things) devices, to cloud computing. Chip supplies are still constrained in certain areas, necessitating further capex investments across the industry well into the current fiscal year.

A little more than one year ago, we completed the acquisition of Rofin-Sinar in an all-cash transaction. The primary strategic objective of the transaction was to expand our presence in the materials processing market. Our revenue for components, lasers, subsystems and tools used in materials processing applications grew by more than three-fold compared to the prior fiscal year and places us among the market leaders. It is a very good first step that we have to build upon. A second goal was to become one of the leading suppliers of high-power fiber lasers used in cutting, welding and additive manufacturing. We focused our attention on ramping laser performance, collaborating with end customers on applications, re-engineering the supply chain including strategic insourcing and expanding our customer support network. These efforts were well received by customers and we found ourselves capacity constrained by the end of fiscal 2017. We have made appropriate investments to alleviate the constraints and expect to grow fiber laser sales in fiscal 2018. The final piece of the puzzle was to revamp our approach to the laser systems business (i.e., end-user workstations). We have started the transition from being a specialty tool supplier to a platform-based approach. We believe this will drive greater value for customers and provide us with broader opportunities. From an integration standpoint, we are on track to meet our timeline and synergy targets. The success of this project is due to solid planning and execution by both legacy teams.

There have been positive developments in our OEM components and instrumentation business. In prior years, the majority of sales came from medical diagnostics and therapeutics. These remain important areas for us, but other opportunities have grown organically and through the Rofin transaction. One example is the sale of fiber and diodes to other fiber laser manufacturers. Another is large format optics for ground based telescopes. Sales of lasers and subsystems into aerospace and defense applications have also increased as the U.S. and its allies deal with new threats and challenges around the world.

Coherent increased the size of its Board of Directors in 2017 with the appointment of Pamela Fletcher, Vice President—Global Electric Vehicle Programs at General Motors Company. Ms. Fletcher’s domain expertise overlaps with several key areas in the laser industry, including cutting, welding, additive manufacturing and sensors. Her appointment also resulted in over 40% of our independent directors representing women and minorities. Our commitment to good governance does not end with diversity. We are also introducing proxy access, increasing stock ownership guidelines for the CEO and instituting stock ownership requirements for our other senior executives.

We trust that our shareholders were pleased with our record-setting performance in fiscal 2017. Among the metrics that benefitted from our financial results was free cash flow, which totaled more than $320 million. We used part of this total to voluntarily pay down the €670 million loan used to finance the Rofin acquisition. Within the fiscal year, we made principal payments of €150 million and an additional €75 million at the end of December 2017 for a total of €225 million. In other words, we retired about one-third of the debt in a little over one year. We will continue to opportunistically use our excess cash (i.e., cash not reinvested in the business or used for strategic matters) to prepay the principal on this loan.

We want to thank our customers, shareholders and colleagues across the globe for their trust and support. We look forward to delivering another outstanding performance in fiscal 2018.

Respectfully,

Garry W. Rogerson,
Chairman of the Board

John R. Ambroseo,
President and Chief Executive Officer

Notice of Annual Meeting of Stockholders

March 1, 2018

8:00 a.m.

Hyatt Regency Santa Clara
5101 Great America Parkway
Santa Clara, CA 95054

MATTERS TO BE VOTED ON:

1. **To elect the eight directors named in the accompanying proxy statement;**
2. **To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending September 29, 2018;**
3. **To approve on a non-binding, advisory basis, our named executive officer compensation; and**
4. **To transact such other business as may properly be brought before the meeting and any adjournment(s) thereof.**

The foregoing items of business are more fully described in the proxy statement accompanying this notice.

Stockholders of record at the close of business on January 8, 2018 are entitled to notice of and to vote at the meeting and at any adjournments or postponements thereof.

All stockholders are cordially invited to attend the meeting. However, to ensure your representation at the meeting, you are urged to mark, sign, date and return the enclosed proxy card as promptly as possible in the postage-prepaid envelope enclosed for that purpose or follow the instructions on the enclosed proxy card to vote by telephone or via the Internet. Any stockholder of record attending the meeting may vote in person even if he or she has returned a proxy. Please note, however, that if your shares are held of record by a broker, bank or other nominee and you wish to vote at the meeting, you must obtain a proxy issued in your name from that record holder.

Santa Clara, California
January 29, 2018

Sincerely,

John R. Ambroseo
President and Chief Executive Officer

Important Notice Regarding the Availability of Proxy Materials for the Stockholder Meeting to Be Held on March 1, 2018

The proxy statement and annual report to stockholders are available at www.proxyvote.com.

YOUR VOTE IS IMPORTANT

In order to assure your representation at the meeting, you are requested to complete, sign and date the enclosed proxy card as promptly as possible and return it in the enclosed envelope or follow the instructions on the enclosed proxy card to vote by telephone or via the Internet. Any stockholder attending the Annual Meeting may vote in person even if he or she returned a proxy card.

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PROXY STATEMENT

General Information About the Meeting

General

The enclosed Proxy is solicited on behalf of the Board of Directors (the ‘‘Board’’) of Coherent, Inc. (‘‘Coherent’’ or the ‘‘Company’’) for use at the Annual Meeting of Stockholders (the ‘‘Annual Meeting’’ or ‘‘meeting’’) to be held at 8:00 a.m., local time, on March 1, 2018 at the Hyatt Regency Santa Clara, 5101 Great America Parkway, Santa Clara, California 95054, and at any adjournment(s) thereof, for the purposes set forth herein and in the accompanying Notice of Annual Meeting of Stockholders. Our telephone number is (408) 764-4000. These proxy solicitation materials were first mailed on or about January 29, 2018 to all stockholders entitled to vote at the Annual Meeting.

Who May Vote at the Meeting?

You are entitled to vote at the Annual Meeting if our records show that you held your shares as of the close of business on our record date, January 8, 2018 (the ‘‘Record Date’’). On the Record Date, 24,821,704 shares of our common stock, $0.01 par value, were issued and outstanding.

What Does Each Share of Common Stock I Own Represent?

On all matters, each share has one vote, unless, with respect to Proposal One regarding the election of directors, cumulative voting is in effect. See ‘‘Proposal One—Election of Directors—Vote Required’’ for a description of cumulative voting rights with respect to the election of directors.

How Does a Stockholder Vote?

Whether or not you plan to attend the Annual Meeting, ***we urge you to vote by proxy*** to ensure your vote is counted. If you are entitled to vote, you may do so as follows:

- **Through your broker:** If your shares are held through a broker, bank or other nominee (commonly referred to as held in ‘‘street name’’), you will receive instructions from them that you must follow to have your shares voted. If you want to vote in person, you will need to obtain a legal proxy from your broker, bank or other nominee and bring it to the meeting.
- **In person:** Attend the Annual Meeting and, if you request, we will give you a ballot at the time of voting. If you have previously submitted a proxy card, you must notify us at the Annual Meeting that you intend to cancel your prior proxy and vote by ballot at the meeting.
- **Returning a Proxy Card:** Simply complete, sign and date the enclosed proxy card and return it promptly in the envelope provided. If your signed proxy card is received before the Annual Meeting, the designated proxies will vote your shares as you direct.
- **Using the Telephone:** Dial toll-free 1-800-690-6903 using a touch-tone phone and follow the recorded instructions. You will be asked to provide the control number from the enclosed proxy card.
- **Through the Internet:** Go to www.proxyvote.com to complete an electronic proxy card. You will be asked to provide the control number from the enclosed proxy card.

For telephone or Internet use, your vote must be received by 11:59 p.m., Eastern time, on February 28, 2018 to be counted.

If you return a signed and dated proxy card ***without*** marking any voting directions, your shares will be voted ‘‘for’’ the election of all eight nominees for director set forth in this proxy statement and ‘‘for’’ Proposals Two and Three.

Matters to be Presented at the Meeting

We are not aware of any matters to be presented at the meeting other than those described in this proxy statement. If any other matter is properly presented at the Annual Meeting, your proxy holders (one of the individuals named on your proxy card) will vote your shares in their discretion. The cost of this solicitation will be borne by us. We may reimburse brokerage firms and other persons representing beneficial owners of shares for their expenses in forwarding solicitation material to such beneficial owners. In addition, proxies may be solicited by certain of our directors, officers and regular employees, without additional compensation, personally or by telephone, e-mail or facsimile.

Revoking Your Proxy

If you hold your shares in street name, you must follow the instructions of your broker, bank or other nominee to revoke your voting instructions. If you are a holder of record and wish to revoke your proxy instructions, you must (i) advise the Corporate Secretary in writing at our principal executive offices at 5100 Patrick Henry Dr., Santa Clara, California 95054 before the proxies vote your shares at the meeting, (ii) timely deliver later-dated proxy instructions or (iii) attend the meeting and vote your shares in person.

Attendance at the Annual Meeting

All stockholders of record as of the Record Date may attend the Annual Meeting. Please note that cameras, recording devices and similar electronic devices will not be permitted at the Annual Meeting. No items will be allowed into the Annual Meeting that might pose a concern for the safety of those attending. Additionally, to attend the meeting you will need to bring identification and proof sufficient to us that you were a stockholder of record as of the Record Date or that you are a duly authorized representative of a stockholder of record as of the Record Date. For directions to attend the Annual Meeting or other questions, please contact Investor Relations by telephone at (408) 764-4110 no later than noon (California time) on February 28, 2018.

Quorum; Abstentions; Broker Non-Votes

Our bylaws provide that stockholders holding a majority of the shares of common stock issued and outstanding and entitled to vote on the Record Date constitute a quorum at meetings of stockholders. Votes will be counted by the inspector of election appointed for the Annual Meeting, who will separately count ''For'' and ''Against'' votes, abstentions and broker non-votes.

A ''broker non-vote'' occurs when a nominee holding shares for a beneficial owner does not vote because the nominee does not have discretionary voting power with respect to the proposal and has not received instructions with respect to the proposal from the beneficial owner. Abstentions will not be taken into account in determining the outcome of the election of directors. However, abstentions are deemed to be votes cast with respect to Proposals Two and Three and will have the same effect as a vote ''Against'' these proposals. We intend to separately report abstentions, and our Compensation and H.R. Committee will generally view abstentions as neutral when considering the results of Proposal Three. Broker non-votes represented by submitted proxies will not be taken into account in determining the outcome of any proposal.

Deadline for Receipt of Stockholder Proposals or Nominations; Proxy Access

In order to submit stockholder proposals for inclusion in our proxy statement pursuant to Rule 14a-8 of the Securities Exchange Act of 1934, as amended (''SEC Rule 14a-8'') for the annual meeting to be held in fiscal 2019, written materials must be received by the Corporate Secretary at our principal office in Santa Clara, California no later than October 1, 2018. Stockholder proposals must otherwise comply with the requirements of SEC Rule 14a-8.

Proposals must be addressed to: Bret DiMarco, Corporate Secretary, Coherent, Inc., 5100 Patrick Henry Dr., Santa Clara, California 95054. Simply submitting a proposal does not guarantee its inclusion.

Section 2.16 of the Company's bylaws also establishes an advance notice procedure with respect to director nominations and stockholder proposals that are not submitted for inclusion in the proxy statement, but that a stockholder instead wishes to present directly from the floor at any annual meeting. To be properly brought before the annual meeting to be held in fiscal 2019, a notice of the nomination or the matter the stockholder wishes to present at the meeting must be delivered to the Corporate Secretary (see above), no later than the close of business on the 45th day (December 15, 2018), nor earlier than the close of business on the 75th day (November 15, 2018), prior to the one year anniversary of the date these proxy materials were first mailed by us, unless the annual meeting of stockholders is held prior to January 30, 2019 or after April 30, 2019, in which case, the proposal must be received by us not earlier than the 120th day prior to the annual meeting and not later than the later of (i) the 90th day prior to the annual meeting and (ii) the tenth day following public announcement of the date the annual meeting will be held, and must otherwise be in compliance with applicable laws and regulations in order to be considered for inclusion in the proxy statement and form of proxy relating to that meeting. We have not received any notice regarding any such matters to be brought at the Annual Meeting.

If a stockholder who has notified us of his or her intention to present a proposal at an annual meeting does not appear to present his or her proposal at such meeting, we need not present the proposal for vote at such meeting. The chairperson of the annual meeting has the final discretion whether or not to allow any matter to be considered at the meeting which did not timely comply with all applicable notice requirements.

If a stockholder wishes only to recommend a candidate for consideration by the Governance and Nominating Committee as a potential nominee for the Company's Board, see the procedures discussed in ''Proposal One—Election of Directors—Process for Stockholders to Recommend Candidates for Election to the Board of Directors.''

The attached proxy card grants to the proxyholders discretionary authority to vote on any matter raised at the Annual Meeting, including proposals which are timely raised at the meeting, but did not meet the deadline for inclusion in this proxy statement.

In addition, our bylaws provide that, effective for annual meetings held after January 1, 2019, under certain circumstances, a stockholder or group of stockholders may include director candidates that they have nominated in our proxy statement. These proxy access provisions permit a stockholder, or a group of up to 20 stockholders, who have owned 3% or more of our outstanding common stock continuously for at least three years to submit director nominees (for up to 20% of our Board) for inclusion in our proxy materials, as long as the stockholder(s) provide timely written notice of such nomination and the stockholder(s) and nominee(s) satisfy the requirements specified in our bylaws. Notice of director nominees must include the information required under our bylaws and must be received by our Corporate Secretary at our principal executive offices between the close of business on September 1, 2018 and the close of business on October 1, 2018, unless the date of the annual meeting to be held in fiscal 2019 is more than 30 days before or more than 60 days after the anniversary of this Annual Meeting. In that case, such notice must be delivered not earlier than the close of business on the 90th day prior to the date of the annual meeting to be held in fiscal 2019 and not later than the close of business on the later of (i) the 60th day prior to the date of the annual meeting to be held in fiscal 2019 or (ii) the 10th day following the day on which public announcement of the date of such meeting is first made. For additional information regarding the Company's proxy access provisions, please refer to the bylaws.

Eliminating Duplicative Proxy Materials

To reduce the expense of delivering duplicate voting materials to our stockholders who may hold shares of Coherent common stock in more than one stock account, we are delivering only one set of the proxy solicitation materials to certain stockholders who share an address, unless otherwise requested. A separate proxy card is included in the voting materials for each of these stockholders.

We will promptly deliver, upon written or oral request, a separate copy of the annual report or this proxy statement to a stockholder at a shared address to which a single copy of the documents was delivered. To obtain an additional copy, you may write us at 5100 Patrick Henry Drive, Santa Clara, California 95054, Attn: Investor Relations, or contact our Investor Relations department by telephone at (408) 764-4110.

Similarly, if you share an address with another stockholder and have received multiple copies of our proxy materials, you may contact us at the address or telephone number specified above to request that only a single copy of these materials be delivered to your address in the future. Stockholders sharing a single address may revoke their consent to receive a single copy of our proxy materials in the future at any time by contacting our distribution agent, Broadridge, either by calling toll-free at 1-800-542-1061, or by writing to Broadridge, Householding Department, 51 Mercedes Way, Edgewood, NY 11717. It is our understanding that Broadridge will remove such stockholder from the householding program within 30 days of receipt of such written notice, after which each such stockholder will receive an individual copy of our proxy materials.

Electronic Delivery of Proxy Materials

In an effort to reduce paper mailed to your home and help lower printing and postage costs, we are offering stockholders the convenience of viewing online proxy statements, annual reports and related materials. With your consent, we can stop sending future paper copies of these documents. To participate during the voting season, registered stockholders may follow the instructions when voting online.

Incorporation by Reference

To the extent that this proxy statement has been or will be specifically incorporated by reference into any other filing of Coherent with the Securities and Exchange Commission (''SEC''), the sections of this proxy statement entitled ''Report of the Audit Committee of the Board of Directors'' (to the extent permitted by the rules of the SEC) and ''Compensation Discussion and Analysis'' shall not be deemed to be so incorporated (other than in our annual report on Form 10-K), unless specifically provided otherwise in such filing.

FURTHER INFORMATION

We will provide without charge to each stockholder solicited by these proxy solicitation materials a copy of our annual report on Form 10-K for the fiscal year ended September 30, 2017 without exhibits and any amendments thereto upon request of such stockholder made in writing to Coherent, Inc., 5100 Patrick Henry Drive, Santa Clara, California 95054, Attn: Investor Relations. We will also furnish any exhibit to the annual report on Form 10-K if specifically requested in writing. You can also access our SEC filings, including our annual reports on Form 10-K, and all amendments thereto on the SEC website at www.sec.gov.

IMPORTANT NOTICE REGARDING THE AVAILABILITY OF PROXY MATERIALS FOR THE STOCKHOLDER MEETING TO BE HELD ON MARCH 1, 2018

The proxy statement and annual report to stockholders are available at www.proxyvote.com.

Stockholder List

A list of stockholders entitled to vote at the Annual Meeting will be available for examination by stockholders of record at the Annual Meeting.

Spotlight on Governance

Our strategic successes have been complemented by an approach to corporate governance that has consistently been recognized for best practices, including:

* Annual Board elections with no classified Board;
* Stockholders may act by written consent;
* Independent Board Chair;
* Majority voting for members of the Board in uncontested elections;
* No ''blank check'' preferred stock;
* Super majority of independent directors on the Board;
* Executive compensation heavily weighted towards performance;
* No super majority stockholder approval for mergers or other business combinations;
* Age-based Board tenure guidelines; and
* Board and CEO stock ownership requirements.

We are also announcing that Coherent is further extending its governance leadership by adopting the following additional governance enhancements (which are discussed in greater detail in other sections of the proxy statement):

* Amended our bylaws to provide for ''proxy access'' (effective for our annual meeting to be held in calendar 2019); and
* Extended stock ownership requirements to all executive officers and increased the stock ownership amount for our CEO.

Importantly, the Board has made these changes at the recommendation of and with the full support of senior management. These governance enhancements do not result from any shareholder proposals related to them. These changes reflect the commitment of the Board and management to maintain common sense and industry-leading governance practices and policies to go along with our historical strong financial performance. This year we were also happy to announce the appointment of Ms. Pamela Fletcher to the Board of Directors. With this addition, our Board's independent director composition consists of 29% female directors and over 40% diverse directors. Our Board is 88% independent, with only our CEO serving as an inside director.

In addition to a diverse background of experiences, the Board believes it is extremely important to have a balance of independent service on the Board, with a mix of new (0-5 years), mid-term (5-10 years) and long-term (more than 10 years) tenures participating. Our financial performance over the past decade is proof that our shareholders have benefited from having a Board with a strong history of refreshment and including various tenured members. In general the Board seeks to have the greatest weight towards the mid-term (which may vary from time to time), which is reflected in the current composition of our independent directors:

New Members (five years or less):	29%
Mid-Term Members (five to ten years):	43%
Long-Term Members (more than ten years):	29%

Coherent has also undertaken several less publicized ''green'' initiatives, such as the installation of over 1200 solar panels on our headquarter building. This array develops over 400kW of energy per hour and approximately 625,000 kW hours annually, which reduces greenhouse gas emissions by approximately 460 tons per year. This installation also allowed us to place eight (soon to be 10) electric vehicle charging stations that our employees can use for free. Our most important environmental-related initiative, however, has been our energy-efficient product designs over the years, which have significantly reduced the amount of power and consumable materials needed to operate our products.

Contributing to the community, our Santa Clara based employees raised from individual employee funds over $194,000 for the Second Harvest Food Bank during 2017, which is the equivalent of 388,000 meals for those in need in Silicon Valley. We are proud to have been the largest corporate donor during their annual spring donation drive. While much has been debated about requiring public companies to disclose their ''political spending,'' we voluntarily disclose that we had no such corporate spending in 2017.

Coherent recently celebrated its 50th anniversary of incorporation, and our Board, management and employees take great pride in our financial performance, governance, stockholder relations and global corporate citizenship.

PROPOSAL ONE
ELECTION OF DIRECTORS

Nominees

Eight (8) members of the Board are to be elected at the Annual Meeting, seven (7) of whom are standing for re-election. Ms. Fletcher, who was recommended to the Governance and Nominating Committee by the search firm retained by the committee, joined the Board during fiscal 2017 and is standing for election for the first time at the Annual Meeting. Unless otherwise instructed, the proxy holders will vote the proxies received by them for the nominees named below. Each nominee has consented to be named a nominee in the proxy statement and to continue to serve as a director, if elected. If any nominee becomes unable or declines to serve as a director, if additional persons are nominated at the meeting or if stockholders are entitled to cumulate votes, the proxy holders intend to vote all proxies received by them in such a manner (in accordance with cumulative voting) as will ensure the election of as many of the nominees listed below as possible, and the specific nominees to be voted for will be determined by the proxy holders.

We are not aware of any reason that any nominee will be unable or will decline to serve as a director. The term of office of each person elected as a director will continue until our next annual meeting of stockholders or until a successor has been elected and qualified or until his or her earlier resignation or removal. There are no arrangements or understandings between any director or executive officer and any other person pursuant to which he or she is or was to be selected as a director or officer.

The names of the nominees, all of whom are currently directors standing for re-election, and certain information about them are set forth below. All of the nominees have been unanimously recommended for nomination by the Board acting on the unanimous recommendation of the Governance and Nominating Committee of the Board. The committee consists solely of independent members of the Board. There are no family relationships among directors or executive officers of Coherent.

Name	Age	Director Since	Principal Occupation
John R. Ambroseo	56	2002	President and Chief Executive Officer
Jay T. Flatley(3)	65	2011	Executive Chairman of Illumina, Inc.
Pamela Fletcher(1)	51	2017	Vice President—Global Electric Vehicle Programs at General Motors Company
Susan M. James(1)(2)	71	2008	Retired Audit Partner, Ernst & Young
L. William Krause(2)(3)	75	2009	President of LWK Ventures
Garry W. Rogerson(1)(2)	65	2004	Former Chief Executive Officer of Advanced Energy Industries, Inc.
Steve Skaggs(1)	55	2013	Former Senior Vice President and Chief Financial Officer of Atmel Corporation
Sandeep Vij(3)	52	2004	Former President and Chief Executive Officer of MIPS Technologies, Inc.

(1) Member of the Audit Committee

(2) Member of the Governance and Nominating Committee

(3) Member of the Compensation and H.R. Committee

Except as set forth below, each of our directors has been engaged in his or her principal occupation set forth above during the past five years.

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.

Mr. Ambroseo's status as our Chief Executive Officer, his over 25 year tenure with Coherent, his extensive knowledge of our products, technologies and end markets and his over a decade of service as a director of Coherent make him an invaluable member of the Board.

Jay T. Flatley. Since 1999 Mr. Flatley has served as a member of the Board of Directors of Illumina, Inc., a leading developer, manufacturer and marketer of life science tools and integrated systems for the analysis of genetic variation and function and since July 2016, as Illumina's Executive Chairman of the Board of Directors. From January 2016 to July 2016, he also served as Illumina's Chairman of the Board of Directors. From 1999 until July 2016, Mr. Flatley was Illumina's Chief Executive Officer. From 1999 to December 2013, Mr. Flatley also served as Illumina's President. Prior to joining Illumina, Mr. Flatley was President, Chief Executive Officer, and a member of the Board of Directors of Molecular Dynamics, Inc., a NASDAQ listed life sciences company focused on genetic discovery and analysis, from 1994 until its sale to Amersham Pharmacia Biotech Inc. in 1998. Additionally, he was a co-founder of Molecular Dynamics and served in various other positions there from 1987 to 1994. From 1985 to 1987, he was Vice President of Engineering and Vice President of Strategic Planning at Plexus Computers, a UNIX computer company. Mr. Flatley is also a member of the boards of directors of the following public companies: Juno Therapeutics, Inc., a biopharmaceutical company and Denali Therapeutics Inc., a biopharmaceutical company. Mr. Flatley holds a B.A. in Economics from Claremont McKenna College and a B.S. and a M.S. in Industrial Engineering from Stanford University.

Mr. Flatley's years of executive and management experience in the high technology industry, including serving as the chief executive officer of several public companies, his service on the boards of other publicly held companies, and his years of service as a director of Coherent make him an invaluable member of the Board.

Pamela Fletcher. Ms. Fletcher has served as Vice President—Global Electric Vehicle Programs at General Motors Company (''GM''), a global automotive company, since October 2017. Over a fifteen-plus year career with GM, Ms. Fletcher has served in various roles, including Global Executive Chief Engineer, Autonomous and Electrified Vehicles and New Technology, from July 2016 to October 2017; Executive Chief Engineer, Electrified Vehicles from August 2012 to July 2016; Chief Engineer, Chevrolet Volt Propulsion System from 2009 to August 2012; and Assistant Chief Engineer, Hybrid & Electric Propulsion Systems from 2007 to 2008. She holds a B.S. Engineering from Kettering University and an M.S. Engineering from Wayne State University.

Ms. Fletcher's years of executive and management experience in the automotive industry and her knowledge of advanced and emerging automotive technologies make her an invaluable member of the Board.

Susan M. James. Ms. James originally joined Ernst & Young, a global accounting services firm, in 1975, serving as a partner from 1987 until her retirement in June 2006, and as a consultant from June 2006 to December 2009. During her tenure with Ernst & Young, she was the lead partner or partner-in-charge for the audit work for a significant number of technology companies, including Intel Corporation, Sun Microsystems, Inc., Amazon.com, Inc., Autodesk, Inc. and the Hewlett-Packard Company, as well as for the Ernst & Young North America Global Account Network. She also served on the Ernst & Young Americas Executive Board of Directors from January 2002 through June 2006. She is a certified public accountant (inactive) and a member of the American Institute of Certified Public Accountants. Ms. James also serves on the board of directors of Tri-Valley Animal Rescue, a non-profit corporation dedicated to providing homes for homeless pets. Ms. James previously served as a director of Applied Materials, Inc. and Yahoo! Inc. Ms. James holds Bachelor's degrees in Mathematics from Hunter College and Accounting from San Jose State University.

Ms. James' years in the public accounting industry, her service on the boards and committees of a number of other publicly held companies and her years of service as a director of Coherent make her an invaluable member of the Board.

L. William (Bill) Krause. Since 1991, Mr. Krause has served as President of LWK Ventures, a private advisory and investment firm. In addition, Mr. Krause serves as a Senior Advisor to The Carlyle Group, a global alternative asset manager (since 2010) and as a Board Partner for Andreessen Horowitz, a venture capital firm (since 2014). Mr. Krause previously served as President and Chief Executive Officer of 3Com Corporation, a global data networking company, from 1981 to 1990 and as its Chairman from 1987 to 1993 when he retired. Mr. Krause currently serves on the board of directors of the following public company: CommScope Holding Company, Inc., a networking infrastructure company. He also serves as Chairman of the Board of Veritas Holding, Ltd., an information management leader. Mr. Krause previously served as a director for the following public companies: Brocade Communications Systems, Inc., Core Mark Holding Company, Inc., Packeteer, Inc., Sybase, Inc. and TriZetto Group, Inc. Mr. Krause holds a B.S. degree in electrical engineering and received an honorary Doctorate of Science from The Citadel.

Mr. Krause's years of executive and management experience in the high technology industry, including serving as the chief executive officer of several companies, his service on the boards and committees of a number of other publicly held companies, and his years of service as a director of Coherent make him an invaluable member of the Board.

Garry W. Rogerson. Mr. Rogerson has served as Coherent's Chairman of the Board since June 2007. Since September 2015, Mr. Rogerson has been a private investor. From August 2011 to September 2015, Mr. Rogerson was Chief Executive Officer and a member of the Board of Directors of Advanced Energy Industries, Inc., a provider of power and control technologies for thin film manufacturing and solar-power generation, after which he agreed to serve as a special advisor for a period of time. He was Chairman and Chief Executive Officer of Varian, Inc., a major supplier of scientific instruments and consumable laboratory supplies, vacuum products and services, from February 2009 and 2004, respectively, until the purchase of Varian by Agilent Technologies, Inc. in May 2010. Mr. Rogerson served as Varian's Chief Operating Officer from 2002 to 2004, as Senior Vice President, Scientific Instruments from 2001 to 2002, and as Vice President, Analytical Instruments from 1999 to 2001. Mr. Rogerson received an honours degree and Ph.D. in biochemistry as well as an honorary doctoral science degree from the University of Kent at Canterbury.

Mr. Rogerson's years of executive and management experience in the high technology industry, including serving as the chief executive officer of several public companies, his service on the boards of other publicly held companies, and his years of service as a director of Coherent make him an invaluable member of the Board.

Steve Skaggs. Mr. Skaggs has been a private investor since April 2016. From May 2013 to April 2016, Mr. Skaggs served as Senior Vice President and Chief Financial Officer of Atmel Corporation, a leading supplier of microcontrollers, prior to its acquisition by Microchip Technology Incorporated. Mr. Skaggs joined Atmel in September 2010 and served as Senior Vice President, Corporate Strategy and Development until his appointment as Chief Financial Officer. Mr. Skaggs has more than 25 years of experience in the semiconductor industry, including serving as President, Chief Executive Officer and Chief Financial Officer of Lattice Semiconductor, a supplier of programmable logic devices and related software. He was also previously a member of the board of directors of Lattice. Prior to Lattice, Mr. Skaggs was employed by Bain & Company, a global management consulting firm, where he specialized in high technology product strategy, mergers and acquisitions and corporate restructurings. Mr. Skaggs holds an MBA degree from the Harvard Business School and a B.S. degree in Chemical Engineering from the University of California, Berkeley.

Mr. Skaggs' years of executive and management experience in the high technology industry, including serving as the chief executive officer and chief financial officer of other public companies, his prior service on the board of another publicly held company and his years of service as a director of Coherent make him an invaluable member of the Board.

Sandeep Vij. Since February 2013, Mr. Vij has been a private investor. Previously, he held the position of President and Chief Executive Officer and was a member of the board of directors of MIPS Technologies, Inc., a leading provider of processor architectures and cores, from January 2010 until its sale in February 2013. In addition, Mr. Vij had been the Vice President and General Manager of the Broadband and Consumer Division of Cavium Networks, Inc., a provider of highly integrated semiconductor products from May 2008 to January 2010. Prior to that, he held the position of Vice President of Worldwide Marketing, Services and Support for Xilinx Inc., a digital programmable logic device provider, from 2007 to April 2008. From 2001 to 2006, he held the position of Vice President of Worldwide Marketing at Xilinx. From 1997 to 2001, he served as Vice President and General Manager of the General Products Division at Xilinx. Mr. Vij joined Xilinx in 1996 as Director of FPGA Marketing. He is a graduate of General Electric's Edison Engineering Program and Advanced Courses in Engineering. He holds an MSEE from Stanford University and a BSEE from San Jose State University.

Mr. Vij's years of executive and management experience in the high technology industry, including serving as the chief executive officer of another public company, his service on the board of another publicly held company, and his years of service as a director of Coherent make him an invaluable member of the Board.

Director Independence

The Board has determined that, with the exception of Mr. Ambroseo, all of its current members and all of the nominees for director are ''independent directors'' as that term is defined in the listing rules of the Nasdaq Stock Market.

Board Meetings and Committees

The Board held a total of five (5) formal meetings and acted three (3) times by unanimous written consent during fiscal 2017. Additionally, from time to time between formal meetings, members of the Board participate in update or status telephone calls and briefings, which are not included in these totals. During fiscal 2017, the Board had three standing committees: the Audit Committee; the Compensation and H.R. Committee; and the Governance and Nominating Committee. From time to time, the Board may create, and has in the past created, limited ad hoc committees, service on which does not provide additional compensation. Each of our directors attended at least 75% of the meetings of the Board and the committees on which he or she served during fiscal 2017.

Audit Committee

The Audit Committee consists of directors James (Chair), Fletcher, Rogerson and Skaggs. The Audit Committee held ten (10) meetings and acted one (1) time by unanimous written consent during fiscal 2017. The Board has determined that directors James, Rogerson and Skaggs are ''audit committee financial experts'' as that term is defined in the rules of the SEC. Among other things, the Audit Committee has the sole authority for appointing and supervising our independent registered public accounting firm and is primarily responsible for approving the services performed by our independent registered public accounting firm and for reviewing and evaluating our accounting principles and our system of internal accounting controls.

Compensation and H.R. Committee

The Compensation and H.R. Committee consists of directors Vij (Chair), Flatley and Krause. The Compensation and H.R. Committee held seven (7) meetings and acted one (1) time by unanimous written consent during fiscal 2017. As noted above, all of the members of the Compensation and H.R. Committee are ''independent'' as defined under the listing rules of the Nasdaq Stock Market. The Compensation and H.R. Committee, among other things, reviews and approves our executive compensation policies and programs, and makes equity grants to our employees, including officers, pursuant to our equity plan. This committee has the sole authority delegated to it by the Board to make employee equity grants, which are done at a meeting rather than by written consent. For additional information about the committee's processes and procedures for the consideration and determination of executive compensation, see ''Compensation Discussion and Analysis.''

Governance and Nominating Committee

The Governance and Nominating Committee consists of directors Rogerson (Chair), James and Krause. The Governance and Nominating Committee held six (6) meetings during fiscal 2017. The Governance and Nominating Committee, among other things, assists the Board by making recommendations to the Board on matters concerning director nominations and elections, board committees and corporate governance, allocation of risk oversight amongst the Board and its committees and compensation for directors. For fiscal 2017, the committee retained an independent compensation consultant to advise it on compensation for service on the Board.

Copies of the charters for each committee of the Board may be found on our website at www.coherent.com under ''Investor Relations.''

Attendance at Annual Meeting of Stockholders by the Members of the Board of Directors

All directors are encouraged, but not required, to attend our annual meeting of stockholders. At our annual meeting held on March 2, 2017, all then-current members of the Board attended in person.

Process for Stockholders to Recommend Candidates for Election to the Board of Directors

The Governance and Nominating Committee will consider nominees properly recommended by stockholders. A stockholder that desires to recommend a candidate for election to the Board must direct the recommendation in writing to us at our principal executive offices (Attention: Corporate Secretary) and must include the candidate's name, age, home and business contact information, principal occupation or employment, the number of shares beneficially owned by the nominee and the stockholder making the recommendation, whether any hedging transactions have been entered into by the nominee or on his or her behalf, information regarding any arrangements or understandings between the nominee and the stockholder nominating the nominee or any other persons relating to the nomination, a written statement by the nominee acknowledging that the nominee will owe a fiduciary duty to Coherent if elected, a written statement of the nominee that such nominee, if elected, intends to tender, promptly following such nominee's election or re-election, an irrevocable resignation effective upon such nominee's failure to receive the required vote for re-election at the next meeting at which such nominee would face re-election and upon acceptance of such resignation by the Board in accordance with Coherent's guidelines or policies, and any other information required to be disclosed about the nominee if proxies were to be solicited to elect the nominee as a director.

For a stockholder recommendation to be considered by the Governance and Nominating Committee as a potential candidate at a meeting of stockholders, nominations must be received on or before the deadline for receipt of stockholder proposals for such meeting. In the event a stockholder decides to nominate a candidate for director and solicits proxies for such candidate, the stockholder will need to follow the rules set forth by the SEC and in our bylaws. See ''General Information About the Meeting—Deadline for Receipt of Stockholder Proposals.''

The Governance and Nominating Committee's criteria and process for evaluating and identifying the candidates that it approves as director nominees are as follows:

- the Governance and Nominating Committee regularly reviews the current composition and size of the Board;
- the Governance and Nominating Committee reviews the qualifications of any candidates who have been properly recommended by a stockholder, as well as those candidates who have been identified by management, individual members of the Board or, if the Governance and Nominating Committee determines, a search firm. Such review may, in the Governance and Nominating Committee's discretion, include a review solely of information provided to the Governance and Nominating Committee or may also include discussions with persons familiar with the candidate, an interview with the candidate or other actions that the committee deems proper;
- the Governance and Nominating Committee evaluates the performance of the Board as a whole and evaluates the qualifications of individual members of the Board eligible for re-election at the annual meeting of stockholders;
- the Governance and Nominating Committee considers the suitability of each candidate, including the current members of the Board, in light of the current size and composition of the Board. Except as may be required by rules promulgated by the Nasdaq Stock Market or the SEC, it is the current belief of the Governance and Nominating Committee that there are no specific, minimum qualifications that must be met by any candidate for the Board, nor are there specific qualities or skills that are necessary for one or more of the members of the Board to possess. In evaluating the qualifications of the candidates, the Governance and Nominating Committee considers many factors, including, issues of character, judgment, independence, age, expertise, diversity of experience, length of service, other commitments and the like. While Coherent does not have a formal policy with regard to the consideration of diversity in identifying director nominees, as noted above, diversity of experience is one of many factors that the committee considers;
- the Governance and Nominating Committee evaluates such factors, among others, and does not assign any particular weighting or priority to any of these factors. The Governance and Nominating Committee considers each individual candidate in the context of the current perceived needs of the Board as a whole. While the Governance and Nominating Committee has not established specific minimum qualifications for director candidates, the committee believes that candidates and nominees must reflect a Board that is comprised of directors who (i) are predominantly independent, (ii) are of high integrity, (iii) have qualifications that will increase the overall effectiveness of the Board, and (iv) meet other requirements

as may be required by applicable rules, such as financial literacy or financial expertise with respect to audit committee members;

- in evaluating and identifying candidates, the Governance and Nominating Committee has the authority to retain and terminate any third party search firm that is used to identify director candidates and has the authority to approve the fees and retention terms of any search firm; and
- after such review and consideration, the Governance and Nominating Committee recommends the slate of director nominees to the full Board for its approval.

The Governance and Nominating Committee will endeavor to notify, or cause to be notified, all director candidates, including those recommended by a stockholder, of its decision as to whether to nominate such individual for election to the Board.

Our corporate governance guidelines require that upon a member of the Board turning 72 years old, he or she shall submit a conditional resignation to the Governance and Nominating Committee effective upon the next annual meeting of stockholders. The committee then determines whether to recommend that the Board accept such resignation. Ms. James and Mr. Krause have so notified the committee, which determined that it was not in the best interest of the Company's stockholders to accept such resignations and have included both Ms. James and Mr. Krause in the slate for this year's election of directors.

Majority Voting and Conditional Resignations from the Board of Directors

Since 2013, we have had a majority vote standard for the election of directors in elections that are not Contested Elections (as defined below). This means that a nominee for director in an uncontested election such as this one shall be elected to the Board if the votes cast ''for'' such nominee exceed the votes cast ''against'' such nominee (with abstentions and broker non-votes not counted as a vote cast either ''for'' or ''against'' that director's election). However, if the number of nominees exceeds the number of directors to be elected (a ''Contested Election''), our bylaws provide that directors shall be elected by a plurality of the votes cast.

The Board has also adopted a policy on majority voting to (i) establish procedures under which any incumbent director who fails to receive a majority of the votes cast in an election that is not a Contested Election shall tender his or her resignation to the Governance and Nominating Committee for consideration; and (ii) provide that the Governance and Nominating Committee will make recommendations to the Board regarding the actions to be taken with respect to all such offers to resign. The Board shall act on the resignation within 90 days following certification of the election results. In the event that the Board does not accept such resignation, then such director shall continue to serve until such time as his or her successor is elected.

Stockholder Communication with the Board of Directors

While the Board believes that management speaks for Coherent, the Board encourages direct communication from stockholders. Accordingly, any stockholder may contact any member of the Board individually or as a group by writing by mail to our principal executive offices (c/o Corporate Secretary) at 5100 Patrick Henry Dr., Santa Clara, CA 95054.

Any stockholder may report to us any complaints or comments regarding accounting, internal accounting controls, or auditing matters. Any stockholder who wishes to so contact us should send such complaints or comments to the Audit Committee, c/o Corporate Secretary, at our principal executive offices. Additionally, as noted below, our Compensation and H.R. Committee encourages stockholder communication on matters related to executive compensation.

Any stockholder communications that the Board receives will first go to our Corporate Secretary, who will log the date of receipt of the communication as well as the identity and contact information of the correspondent in our stockholder communications log.

Our Corporate Secretary will review, summarize and, if appropriate, investigate the complaint under the direction of the appropriate committee of the Board in a timely manner. In the case of accounting or auditing related matters, a member of the Audit Committee, or the Audit Committee as a whole, will then review the summary of the communication, the results of the investigation, if any, and, if appropriate, the draft response. The summary and response will be in the form of a memo, which will become part of the stockholder communications log that the Corporate Secretary maintains with respect to all stockholder communications.

Independent Chair and Board Leadership

The Board's leadership structure consists of an independent Board Chair, who is elected by the independent directors, and independent committee chairs. We separate the positions of Chief Executive Officer and Board Chair in recognition of the differences between the two roles. The Board believes this structure provides independent Board leadership and engagement.

Given that our Chair is an independent director, the Board does not feel the need for a separate ''lead independent director,'' as our independent Chair performs that function. The Board takes its independence seriously and reinforces this standard with seven of its eight members, or 88%, being independent.

The Role of the Board and its Committees in Risk Oversight

The Board oversees Coherent's risk profile and management's processes for assessing and managing risk, both as a Board and through its committees, with the Governance and Nominating Committee delegated the responsibility for assigning oversight responsibilities to each committee and the Board as a whole. Our senior executive team provides regular updates to the Board and each committee regarding our strategies and objectives and the risks inherent with them.

Each regular meeting of the Board includes a discussion of risks related to the Company's financial results and operations and each committee schedules risk-related presentations regularly throughout the year. In addition, our directors have access to our management to discuss any matters of interest, including those related to risk. Those members of management most knowledgeable of the issues attend Board and committee meetings to provide additional insight on the matters being discussed, including risk exposures. Our Chief Financial Officer and General Counsel both report directly to our Chief Executive Officer, providing him with further visibility to our risk profile. A Vice President, Finance is the designated officer overseeing our enterprise risk management program and works closely with both our Chief Financial Officer and General Counsel on these matters.

These regular meetings also provide our Board members the opportunity to discuss issues of concern directly with management. In general the Board and its committees oversee the following risk categories:

- the Board generally oversees the Company's overall enterprise risk management process and specifically with regard to the areas of strategy, mergers and acquisitions, communications and operations;
- the Audit Committee generally oversees risks primarily related to financial controls, IT, accounting, tax, treasury, capital, legal, regulatory and compliance;
- the Compensation and H.R. Committee generally oversees our compensation programs so that they do not incentivize excessive risk taking as well as overseeing human resources related risks; and
- the Governance and Nominating Committee oversees the assignment of risk oversight categories by each particular committee and/or the Board as a whole, as well as those risks related to compensation of members of the Board and succession planning for the Board and our Chief Executive Officer.

Management presents an annual assessment of the risks associated with the Company's compensation plans. The Compensation and H.R. Committee agreed with the conclusion from the winter of calendar 2017 presentation that the risks were within our ability to effectively monitor and manage and that these risks are not reasonably likely to have a material adverse effect on the Company.

Additional Board Governance Matters

The Board (acting on the recommendation of the Governance and Nominating Committee) has approved the Company's Corporate Governance Guidelines, which include, among other items (in addition to those items described elsewhere in this proxy statement), the following provisions:

- At each regular meeting of the Board, the independent directors also meet in executive session without the presence of management;
- To avoid ''over-boarding'' we maintain the following limits on service on other boards:
  - CEO—No more than one (1) other public company board of directors in addition to the Company (note, however, that Mr. Ambroseo does not serve on any public company boards other than ours);
  - Independent Directors—No more than four (4) other public company boards of directors in addition to the Company;
  - Audit Committee members—No more than three (3) other public company audit committees in addition to the Company, unless the other independent directors consent;
- Each independent member of the Board must, within five years of initial appointment, acquire and thereafter maintain a minimum value of Company stock equal to three times such director's annual Board cash retainer (exclusive of any cash retainer for service as chair or committee service);
- The Board is responsible for reviewing the Company's succession planning and senior management development on an annual basis; and
- The Board maintains an age-based term limit of 72 (provided, that the Governance and Nominating Committee maintains the flexibility to not apply such limit on a facts and circumstances basis).

Fiscal 2017 Director Compensation

During fiscal 2017, we paid our non-employee directors an annual retainer (depending upon position) and for service on the Board as follows:

Position	Annual Retainer (Prior to February 2017)	Annual Retainer (Effective February 2017)
Board Member	$ 40,000	$ 60,000
Board Chair	$ 40,000	$ 50,000
Audit Committee Chair	$ 34,000	$ 34,000
Compensation and H.R. Committee Chair	$ 16,000	$ 20,000
Governance and Nominating Committee Chair	$ 10,750	$ 13,500
Audit Committee member (non-Chair)	$ 12,500	$ 12,500
Compensation and H.R. Committee member (non-Chair)	$ 8,500	$ 10,000
Governance and Nominating Committee member (non-Chair)	$ 6,500	$ 6,500

The Governance and Nominating Committee annually reviews Board and committee compensation with the assistance of an independent compensation consultant, which for fiscal 2017 was Compensia. Compensia is separately compensated for this work from the work it does as the Compensation and H.R. Committee's independent consultant for executive compensation. The annual review includes a comparison to peer companies (which are the same as used for executive compensation as noted on page 34) and market pay practices for service on boards of directors. Compensia advised the committee that the design and pay levels of the director compensation program were aligned with peer market practices. As noted, the Board is compensated with a combination of cash retainers and a fixed value of time-based RSUs. As noted elsewhere in this proxy statement, Compensia has not provided any other service for the Company other than as directed by a committee of the Board.

The chart below presents information concerning the total compensation of our non-employee directors for service (including Board and, where applicable, committee service) during fiscal 2017:

Name	Fees Paid in Cash ($)[1]	Stock Awards ($)[2][3]	Option Awards ($)[4]	Total ($)
Jay T. Flatley	64,625	238,778	—	303,403
Pamela Fletcher*	18,125	206,316	—	224,441
Susan M. James	95,500	238,778	—	334,278
L. William Krause	71,125	238,778	—	309,903
Garry W. Rogerson	127,813	238,778	—	366,591
Steve Skaggs	67,500	238,778	—	306,278
Sandeep Vij	74,000	238,778	—	312,778

* Fees paid in cash for Ms. Fletcher reflect pro-rata amount for service during the fiscal year.

(1) The chart below summarizes the gross cash amounts earned by non-employee directors for service during fiscal 2017 on the Board and its committees:

Name	Annual Board Service ($)	Audit Committee ($)	Compensation and H.R. Committee ($)	Governance and Nominating Committee ($)	Total ($)
Jay T. Flatley	55,000	—	9,625	—	64,625
Pamela Fletcher*	15,000	3,125	—	—	18,125
Susan M. James	55,000	34,000	—	6,500	95,500
L. William Krause	55,000	—	9,625	6,500	71,125
Garry W. Rogerson	102,500	12,500	—	12,813	127,813
Steve Skaggs	55,000	12,500	—	—	67,500
Sandeep Vij	55,000	—	19,000	—	74,000

* Note that Ms. Fletcher's retainer amounts are pro-rated for her time served during the fiscal year.

(2) These amounts do not reflect compensation actually received. Rather, these amounts represent the aggregate grant date fair value computed in accordance with ASC 718, for restricted stock units (''RSUs'') which were granted in fiscal 2017. The assumptions used to calculate the value of these RSUs are set forth in Note 12 ''Employee Stock Award and Benefit Plans'' of the Notes to the Consolidated Financial Statements in our annual report on Form 10-K for fiscal 2017. Note that Ms. Fletcher's stock awards are at a different value due to the difference in stock price on the date of her grant date as compared to the other directors, who received their grants on a different date.

(3) The aggregate number of shares underlying unvested RSUs held by each of our non-employee directors as of the end of fiscal 2017 and reflecting the grants made to our non-employee directors during fiscal 2017 was as follows:

Name	Shares[a]
Jay T. Flatley	1,293[b]
Pamela Fletcher	917[c]
Susan M. James	1,293[b]
L. William Krause	1,293[b]
Garry W. Rogerson	1,293[b]
Steve Skaggs	1,293[b]
Sandeep Vij	1,293[b]

(a) The shares underlying the RSUs will vest to the extent an individual is a member of the Board on the applicable vesting date.

(b) These shares will vest on February 15, 2018.

(c) 50% of the shares will vest on each of June 30, 2018 and June 30, 2019.

(4) No stock options were granted to our non-employee directors during fiscal 2017. As of the end of fiscal 2017, Mr. Flatley held outstanding stock options with respect to 24,000 shares and none of the other non-employee directors held any stock options.

Our stockholders approved the adoption of our 2011 Equity Incentive Plan (the ''2011 Plan'') at our annual meeting held in March 2011 an re-approved the 2011 Plan at our annual meeting held in March 2017.

Following the recommendation of the Governance and Nominating Committee (based upon review by Compensia) in February 2017, the Board adopted resolutions automatically granting each year without any discretion to each non-employee director an award of RSUs under the 2011 Plan (rounded down to the nearest whole share) valued at $225,000 (based on the trailing thirty day closing price of the Company's common stock on the NASDAQ measured from the last trading day prior to the date of grant) upon the director's election to the Board at the Company's annual meeting. In addition, the Board determined that upon the initial appointment of a non-employee director, such director will receive an award of RSUs under the 2011 Plan valued at $225,000 (based on the trailing thirty day closing price of the Company's common stock on the NASDAQ measured from the last trading day prior to the date of grant), which RSUs shall vest over two years (fifty percent on each anniversary of the date of grant). This was a change from the historical practice of granting a fixed number of 3,500 RSUs per year. The Board determined to migrate to a value-based annual grant rather than fixed shares.

Option Exercises and Stock Vested during Fiscal 2017

The table below sets forth certain information for each non-employee director regarding the exercise of options and the vesting of stock awards during fiscal 2017, including the aggregate value realized upon such exercise or vesting.

	Option Awards		Stock Awards	
Name	**Number of Shares Acquired on Exercise (#)**	**Value Realized on Exercise ($)(1)**	**Number of Shares Acquired on Vesting (#)**	**Value Realized on Vesting ($)(2)**
Jay T. Flatley	—	—	3,500	676,235
Pamela Fletcher	—	—	—	—
Susan M. James	—	—	3,500	676,235
L. William Krause	6,000	1,231,260	3,500	676,235
Garry W. Rogerson	—	—	3,500	676,235
Steve Skaggs	—	—	3,500	676,235
Sandeep Vij	—	—	3,500	676,235

(1) Reflects the difference between the exercise price of the option and market price of our common stock on the exercise date.

(2) Reflects the market price of our common stock on the vesting date or the last day on which our common stock traded prior to the vesting date if trading did not occur on the vesting date.

Vote Required

The affirmative vote of a majority of the votes cast is required for the election of directors. You may vote ''FOR,'' ''AGAINST'' or ''ABSTAIN'' with respect to each of the director nominees named in this proxy statement. Pursuant to our bylaws, abstentions and broker non-votes are not considered to be votes cast and, therefore, will not have an effect in determining the outcome of the election of directors, and votes withheld will count as a vote against a nominee's election. If a quorum is present, each of the eight (8) nominees who receives more ''FOR'' votes than ''AGAINST'' votes will be elected.

Every stockholder voting for the election of directors may cumulate such stockholder's votes and give one candidate a number of votes equal to the number of directors to be elected multiplied by the number of votes to which the stockholder's shares are entitled. Alternatively, a stockholder may distribute his or her votes on the same principle among as many candidates as the stockholder thinks fit, provided that votes cannot be cast for more than eight (8) candidates. However, no stockholder will be entitled to cumulate votes for a candidate unless (i) such candidate's name has been properly placed in nomination for election at the Annual Meeting prior to the voting and (ii) the stockholder, or any other stockholder, has given notice at the meeting prior to the voting of the intention to cumulate the stockholder's votes. If cumulative voting occurs at the meeting and you do not specify how to distribute your votes, your proxy holders (the individuals named on your proxy card) will cumulate votes in such a manner as will ensure the election of as many of the nominees listed above as possible, and the specific nominees to be voted for will be determined by the proxy holders.

Recommendation

The Board recommends that stockholders vote ''FOR'' each of the eight nominees presented herein.

PROPOSAL TWO

RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee of the Board has selected Deloitte & Touche LLP, an independent registered public accounting firm, to audit our financial statements for the fiscal year ending September 29, 2018, and recommends that stockholders vote for ratification of such appointment. Deloitte & Touche LLP has audited our financial statements since the fiscal year ended September 25, 1976. Although ratification by stockholders is not required by law, the Audit Committee has determined that it is desirable to request ratification of this selection by the stockholders as a matter of good corporate practice. Notwithstanding its selection, the Audit Committee, in its discretion, may appoint a new independent registered public accounting firm at any time during the year if the Audit Committee believes that such a change would be in the best interest of Coherent and its stockholders. If stockholders do not ratify the appointment of Deloitte & Touche LLP, the Audit Committee may reconsider its selection. The Audit Committee selected Deloitte & Touche LLP to audit our financial statements for the fiscal year ended September 30, 2017, which was ratified by our stockholders.

Representatives of Deloitte & Touche LLP are expected to be present at the meeting and will be afforded the opportunity to make a statement if they desire to do so. The representatives of Deloitte & Touche LLP are also expected to be available to respond to appropriate questions.

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 2017 and 2016:

	2017	2016
Audit fees[(1)]	$ 4,102,586	$ 2,123,621
Tax fees[(2)]	347,865	218,115
All other fees[(3)]	1,895	2,600
Total	$ 4,452,346	$ 2,344,336

(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. The increase in audit fees in 2017 is primarily due to the acquisition of Rofin and the resulting incremental audit and acquisition related accounting fees incurred.

(2) Represents tax compliance and related services.

(3) Represents the annual subscription for access to the Deloitte Accounting Research Tool, which is a searchable on-line accounting database.

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 to pre-approve certain additional services, and such pre-approvals are communicated to the full Audit Committee at its next meeting. During fiscal years 2017 and 2016, 100% of the services were pre-approved by the Audit Committee in accordance with this policy.

Vote Required

The affirmative vote of a majority of votes present in person or represented by proxy and entitled to vote at the Annual Meeting is required to ratify the selection of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending September 29, 2018.

Recommendation

The Audit Committee and the Board recommends that stockholders vote ''FOR'' the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending September 29, 2018.

PROPOSAL THREE

APPROVAL ON A NON-BINDING, ADVISORY BASIS, OF OUR NAMED EXECUTIVE OFFICER COMPENSATION

At our annual meeting in March 2017, our stockholders indicated they would like to have an annual advisory vote on executive compensation. Accordingly, the Board proposes that stockholders provide advisory (non-binding) approval of the compensation of our named executive officers, as disclosed pursuant to the compensation disclosure rules of the SEC, including the Compensation Discussion and Analysis, the Fiscal 2017 Summary Compensation Table and related tables and disclosure.

As described in our Compensation Discussion and Analysis, we have adopted an executive compensation philosophy designed to provide alignment between executive pay and performance and to focus executives on making decisions that enhance our stockholder value in both the short and long term. Executives are compensated in a manner consistent with Coherent's strategy, competitive practices, stockholder interest alignment, and evolving compensation governance standards.

Vote Required

The affirmative vote of a majority of votes present in person or represented by proxy and entitled to vote at the Annual Meeting is required to approve the compensation of our named executive officers disclosed in this proxy statement. The vote is an advisory vote and, therefore, not binding. The Board values the opinions of our stockholders and to the extent there is any significant vote against our named executive officer compensation as disclosed in this proxy statement, the Board will consider our stockholders' concerns and the Compensation and H.R. Committee will evaluate whether any actions are necessary to address those concerns.

Recommendation

The Board recommends that stockholders vote ''FOR'' the approval, on a non-binding, advisory basis of our named executive officer compensation disclosed in this proxy statement.

SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

The following table sets forth, as of December 31, 2017, certain information with respect to the beneficial ownership of Coherent common stock by (i) any person (including any "group" as that term is used in Section 13(d)(3) of the Securities Exchange Act of 1934 (the "Exchange Act")) known by us to be the beneficial owner of more than 5% of our voting securities, (ii) each director and each nominee for director, (iii) each of the executive officers named in the Summary Compensation Table appearing herein, and (iv) all current executive officers and directors as a group. We do not know of any arrangements, including any pledge by any person of our securities, the operation of which may at a subsequent date result in a change of control. Unless otherwise indicated, the address of each stockholder in the table below is c/o Coherent, Inc., 5100 Patrick Henry Drive, Santa Clara, California 95054.

Name and Address	Number of Shares	Percent of Total(1)
Vanguard Group Inc.(2) P.O. Box 2600 Valley Forge, PA 19482	2,024,672	8.16%
BlackRock Fund Advisors(2) 400 Howard St. San Francisco, CA 94105	1,995,238	8.04%
Eagle Asset Management, Inc.(2) 880 Carillon Parkway St. Petersburg, FL 33716	1,292,712	5.21%
John R. Ambroseo(3)	125,896	*
Kevin Palatnik(4)	10,332	*
Mark Sobey	15,590	*
Paul Sechrist(5)	1,596	*
Bret DiMarco(6)	7,207	*
Jay T. Flatley(7)	37,293	*
Pamela Fletcher	—	*
Susan M. James(8)	5,293	*
L. William Krause(8)	10,793	*
Garry W. Rogerson(9)	11,793	*
Steve Skaggs(8)	12,293	*
Sandeep Vij(10)	4,793	*
All directors and executive officers as a group (13 persons)(11)	243,433	*

* Represents less than 1%.

(1) Based upon 24,821,704 shares of Coherent common stock outstanding as of December 31, 2017. Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to the securities. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, each share of Coherent common stock subject to options held by that person that are currently exercisable or will be exercisable within 60 days of December 31, 2017 and all RSUs held by that person that will vest within 60 days of December 31, 2017, are deemed outstanding. Such shares are not deemed outstanding for the purpose of computing the percentage ownership of any other person.

(2) Based on the institutional holding report provided by NASDAQ.

(3) Includes 125,896 shares owned by the Ambroseo-Lacorte Family Trust, of which Mr. Ambroseo is a trustee.

(4) Includes 5,250 shares issuable upon vesting of RSUs within 60 days of December 31, 2017.

(5) Includes 1,596 shares owned by the Sechrist Family Trust, of which Mr. Sechrist is a trustee.

(6) Includes 7,207 shares owned by the DiMarco Family Trust, of which Mr. DiMarco is a trustee.

(7) Includes 24,000 shares issuable upon exercise of vested options held by Mr. Flatley, 1,293 shares issuable upon vesting of RSUs within 60 days of December 31, 2017, and 12,000 shares held by the Flatley Family Trust.

(8) Includes 1,293 shares issuable upon vesting of RSUs within 60 days of December 31, 2017.

(9) Includes 1,293 shares issuable upon vesting of RSUs within 60 days of December 31, 2017, and 10,500 shares held by the 2000 Rogerson Family Revocable Living Trust.

(10) Includes 1,293 shares issuable upon vesting of RSUs within 60 days of December 31, 2017, and 3,500 shares held by the Vij Family 2001 Trust.

(11) Includes an aggregate of 24,000 shares issuable upon exercise of vested options and 13,008 shares issuable upon vesting of RSUs within 60 days of December 31, 2017.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our officers and directors, and persons who own more than ten percent of a registered class of our equity securities to file reports of ownership and changes in ownership with the SEC. Such officers, directors and ten-percent stockholders are also required by SEC rules to furnish us with copies of all forms that they file pursuant to Section 16(a). Based solely on our review of the copies of such forms received by us, and on written representations from certain reporting persons that no other reports were required for such persons, we believe that, during fiscal 2017, other than Mr. Skaggs, who filed one late Form 4 by one day due to our administrative error, all of our officers, directors and, to our knowledge, greater than ten percent stockholders complied with all applicable Section 16(a) filing requirements.

OUR EXECUTIVE OFFICERS

The name, age, position and a brief account of the business experience of our Chief Executive Officer and each of our other executive officers as of December 31, 2017 are set forth below:

Name	Age	Office Held
John R. Ambroseo(1)	56	President and Chief Executive Officer
Kevin Palatnik(1)	60	Executive Vice President and Chief Financial Officer
Mark Sobey(1)	57	Executive Vice President and General Manager, OEM Laser Sources
Paul Sechrist(1)	58	Executive Vice President, Worldwide Sales and Service
Bret DiMarco(1)	49	Executive Vice President, General Counsel and Corporate Secretary
Thomas Merk	55	Executive Vice President and General Manager, Industrial Lasers & Systems

(1) ''Named Executive Officer'' for purposes of our Compensation Discussion and Analysis.

Please see ''Proposal One—Election of Directors—Nominees'' above for Mr. Ambroseo's biographical information.

Kevin Palatnik. Mr. Palatnik has served as our Executive Vice President and Chief Financial Officer since February 2016. Prior to that from August 2011 until its acquisition by Knowles Corporation in July 2015, Mr. Palatnik served as the Chief Financial Officer of Audience, Inc., a provider of intelligent voice and audio solutions for mobile devices. Prior to that from June 2001 to November 2010, Mr. Palatnik held various roles at Cadence Design Systems, Inc., an electronic design automation software company, including as its senior vice president and chief financial officer. Mr. Palatnik also serves as a member of the board of directors and chair of the audit committee of Adesto Technologies, Inc., a memory solutions semiconductor company. Mr. Palatnik received a B.S. in Industrial Engineering and Operations Research and a M.B.A. from Syracuse University.

Mark Sobey. Mr. Sobey has served as our Executive Vice President and General Manager of OEM Laser Sources (OLS) since November 2016. He previously served as our Executive Vice President and General Manager of Specialty Laser Systems (SLS) from April 2010 to November 2016. Mr. Sobey served as Senior Vice President and General Manager for the SLS Business Group from joining Coherent in July 2007 until April 2010. Prior to Coherent, Mr. Sobey 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 from the University of Strathclyde in Scotland.

Paul Sechrist. Mr. Paul Sechrist was appointed Executive Vice President, Worldwide Sales and Service in March 2011. He has over 35 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.

Bret 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's degree from the University of California at Irvine and a Juris Doctorate degree from the Law Center at the University of Southern California. Additionally, Mr. DiMarco is a member of the Nasdaq Listing and Hearing Review Council and an adjunct professor at the University of California, Hastings College of the Law.

Thomas Merk. Mr. Merk was appointed Executive Vice President and General Manager, Industrial Lasers & Systems in December 2016. Prior to that, Mr. Merk was Chief Executive Officer and President of Rofin-Sinar Technologies Inc. and a member of its board of directors from July 2015 to November 2016, when the acquisition of Rofin by Coherent was completed.

From December 2005 to July 2015 Mr. Merk was the Chief Operating Officer of the Rofin Micro and Marking Business and a Managing Director of Carl Baasel Lasertechnik GmbH & Co. KG. from May 2000 to November 2016. He started his career in 1989 at Boehringer Werkzeugmaschinen Vertriebs GmbH, a machine tool company, and remained there until 2000, most recently serving as managing director. Mr. Merk holds a Master's Degree in mechanical engineering from the Technical University of Stuttgart, Germany.

COMPENSATION DISCUSSION AND ANALYSIS

Introduction

In this section, we describe the material components of our executive compensation program for our ''Named Executive Officers'' or ''NEOs'': Messrs. Ambroseo, Palatnik, Sobey, Sechrist and DiMarco. We also provide an overview of our executive compensation philosophy, principal compensation policies and practices by which the Compensation and H.R. Committee, or the committee, arrives at its decisions regarding NEO compensation.

NEO Compensation Overview

The following chart sets forth our compensation philosophy and design principles:

Compensation Philosophy	*Compensation Design Principles*
Retain and hire talented executives	Our executives should have market competitive compensation and the committee orients our target total compensation generally near the 50th percentile of the committee's selected peer group, with actual compensation falling above or below depending upon our financial performance and the performance of our stock price against an index over a three-year vesting period. Compensation components may be above or below such percentile target and varies by individual executive.
Pay for performance, with both short and long-term measurements	A significant portion of the annual compensation of our executives is designed to vary with annual business performance and a significant portion of long-term equity compensation is based on the long-term relative performance of our stock price in comparison to the Russell Index (by way of a single three year vesting period).
Tie compensation to performance of the core business	Our fiscal 2017 annual cash incentive plan was dependent upon corporate achievement of two demanding performance targets: revenue and Adjusted EBITDA dollars. The committee determined that these were the most effective metrics for tying management's compensation directly to our core operating results for fiscal 2017.
Align compensation with stockholder interests	Our stockholders benefit from continued strong operating performance by the Company, and we believe that having a significant portion of compensation tied to equity with both time and performance-based vesting requirements directly aligns management to stockholder returns. Performance-based RSUs make up the largest potential portion of the equity grants for our CEO, and make up a significant potential portion of the equity grants of our other NEOs. Grants of performance-based RSUs in fiscal 2017 have the same measurement period as in fiscal 2016 and 2015: a single vesting date three years from grant solely dependent upon the performance of our common stock price measured against the Russell 2000 Index, with target at meeting the index's performance. We historically have used the Russell 2000 Index to compare our stock price performance, but due to the recent increase in our market cap, we have been moved to the Russell 1000 Index and, accordingly, for grants made in the first quarter of fiscal 2018 the committee compares our stock price performance against the performance of the Russell 1000 Index. We refer to the applicable Russell Index as the ''Russell Index.''

The following chart sets forth our principal elements of NEO compensation:

Executive Compensation Program Overview—Elements of Compensation

Element	*Variability*	*Objective*	*How Established*	*Fiscal Year 2017 for NEOs*
Base Salary	Fixed	Provide a competitive fixed component of compensation that, as part of a total cash compensation package, enables us to attract and retain top talent.	Reviewed against executive officer's skill, experience and responsibilities, and for competitiveness against our compensation peer group.	Base salary increased for 2017 to reflect performance and to more closely align with peers. Salaries had remained largely unchanged in 2016.
Annual Cash Incentive	Performance Based	Offer a variable cash compensation opportunity twice per fiscal year based upon the level of achievement of corporate goals.	Target payouts set by measuring total cash compensation opportunity against the peer group. Corporate performance targets based on meeting operational goals tied to the Company's operating budget for the applicable fiscal year.	Semi-Annual bonus funding from revenue and Adjusted EBITDA achievement. Revenue achievement weighted at 25% and Adjusted EBITDA achievement weighted at 75%. Total payout can range from 0% to 200% of target. For both the first and second halves of fiscal 2017, based on the Company's performance, the combined bonus payout equaled 200% of target.
RSUs—Service Based	Value Tied to Stock Price	Align long-term management and stockholder interests and strengthen retention with three-year vesting. Service-based awards create long-term retention.	Target total value of annual awards using market data (reviewed against our compensation peer group for competitiveness) and the executive officer's responsibilities, contributions and criticality to ongoing success.	Fiscal year 2017 service-based awards vest 1/3 per year over three years, with the first vesting date occurring on the one year anniversary of the grant date.

Element	*Variability*	*Objective*	*How Established*	*Fiscal Year 2017 for NEOs*
RSUs—Performance Based	Performance Based—Value Tied to Stock Price and Based on Relative Performance to Russell Index	Performance-based awards provide opportunity based upon the performance of our stock price against the performance of the Russell Index.	Target total value of annual awards using market data (reviewed against our compensation peer group for competitiveness) and the executive officer's responsibilities, contributions and criticality to ongoing success.	Performance award measured by comparing our stock price performance against that of the Russell Index. Awards can range from 0% to 200% of target. For every 1% our stock price is below the Russell Index, the target award is **reduced by 4%**; for every 1% our stock price is above the Russell Index, the target award is **increased by 2%**. Due to the performance of our stock price, awards that vested in fiscal 2017 achieved the maximum cap and were 200% of the target award.
Other Benefits	Primarily Fixed	Provide competitive employee benefits. We do not view this as a significant component of our executive compensation program.	Reviewed for competitiveness.	No significant changes to fiscal year 2016 program.

Stockholder Feedback

The committee carefully considers feedback from our stockholders regarding our executive compensation program, including as expressed by the results of our annual advisory vote on executive compensation, which our stockholders have historically strongly supported. All stockholders are invited to express their views to the committee as described in this proxy statement under the heading ''Stockholder Communication with the Board of Directors.'' The committee welcomes direct stockholder feedback and considers such feedback as well as the results of our historical ''say on pay'' results in its deliberations on executive compensation. We strongly urge our stockholders to read this Compensation Discussion and Analysis in conjunction with Proposal Three.

Executive Summary

Our Business

Founded in 1966, Coherent, Inc. is one of the leading providers of lasers and laser-based technology for scientific, commercial and industrial customers. Our common stock is listed on the Nasdaq Global Select Market and is part of several indexes, including the Russell 1000 and Standard & Poor's MidCap 400 Index. For more information about our business, please read the sections captioned ''Business'' and ''Management's Discussion and Analysis of Financial Condition and Results of Operations'' in our Annual Report on Form 10-K filed with SEC on November 28, 2017.

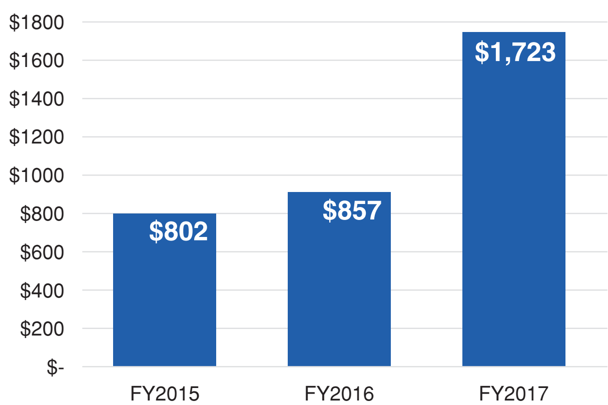
Selected Business Highlights

Following the completion of our acquisition of Rofin-Sinar Technologies Inc. as well as the performance of our underlying business, we experienced a significant growth in revenue in fiscal 2017, which exceeded our internal growth targets. In addition, we were able to significantly grow our

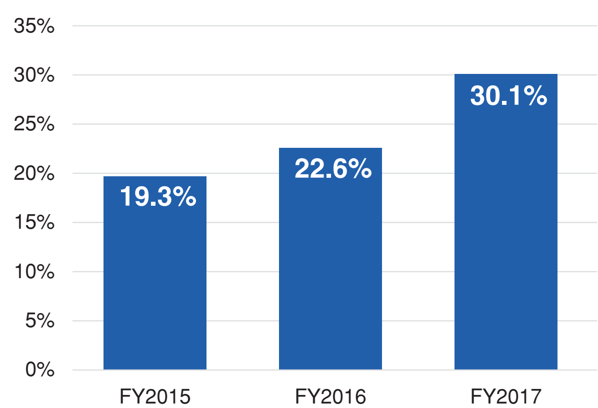
Adjusted EBITDA% and non-GAAP earnings per share. Accordingly, the Company significantly exceeded the performance-related goals for our executive compensation programs, including both metrics in our annual cash program as well as our long-term performance measurement under our performance-based RSU design. As a result, you will see in the coming pages that in fiscal 2017 our performance-related executive compensation hit the maximum cap established by the committee.

Set forth below are tables reflecting several performance metrics from the last three fiscal years that impact our NEO compensation.

Our revenue increased 7% from fiscal 2015 to fiscal 2016 and increased 101% from fiscal 2016 to fiscal 2017 (dollars in millions):

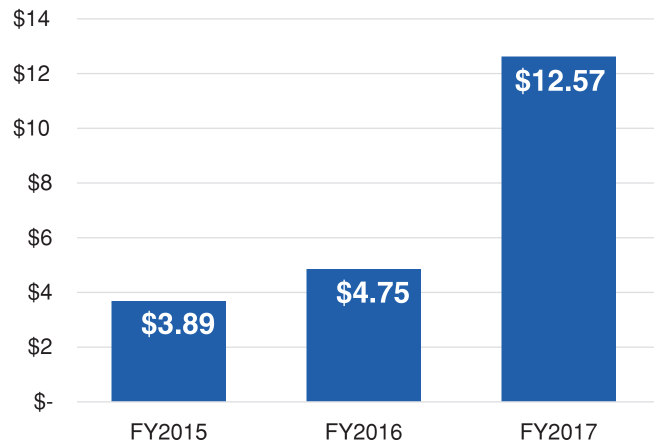


Our Adjusted EBITDA% increased 17% from fiscal 2015 to fiscal 2016 and increased 33% from fiscal 2016 to fiscal 2017:



* Adjusted EBITDA% is defined as operating income (as a percent of net sales) adjusted for depreciation, amortization, stock-based compensation, major restructuring costs and certain other non-operating income and expense items such as costs related to the acquisition of Rofin-Sinar Technologies Inc.

Our non-GAAP earnings per share from continuing operations increased 22% from fiscal 2015 to fiscal 2016 and increased 265% from fiscal 2016 to fiscal 2017:



* Non-GAAP earnings per share is defined as earnings per share excluding certain recurring and non-recurring items.

For a reconciliation table of earnings per share on a GAAP basis to non-GAAP basis and net income from continuing operations on a GAAP basis to Adjusted EBITDA, please refer to the "Reconciliation Table" at the end of this section.

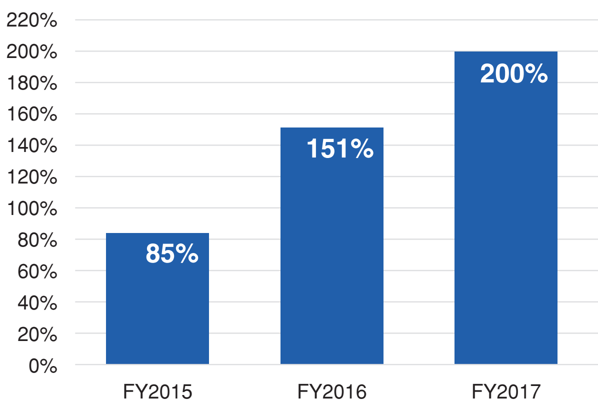
Compensation Overview

Compensation Philosophy. We tie executive total compensation to stockholder value with two measures: our operational results and the comparative performance of our stock price. This approach provides strong alignment between executive pay and performance, and focuses executives on making decisions that enhance our stockholder value in both the short and long-term. We design our executive compensation program to achieve the following goals:

- **Pay for performance, with both short and long-term measurements**—A significant portion of the annual compensation of our executives is designed to vary with annual business performance and the long-term relative performance of Coherent's stock price in comparison to the Russell Index (by way of a single three year vesting period). The committee and management set demanding performance targets, so that even though the Company's financial performance was solid in fiscal 2015, payouts were not as robust. In fiscal 2017, the Company's financial performance resulted in maximum payouts under our annual cash incentive plan. Additionally, the performance of the Company's stock as measured against the Russel Index resulted in maximum shares issued under the performance-based RSUs, which vested at the maximum 200% payout.

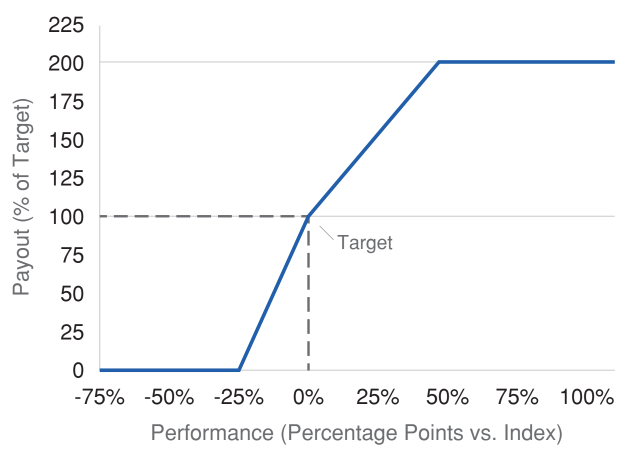
The following chart shows the payout percentages as compared to the committee's selected target for each of the last three fiscal years under our annual variable compensation program:

ANNUAL PAYOUT PERCENTAGE UNDER CASH INCENTIVE PLAN



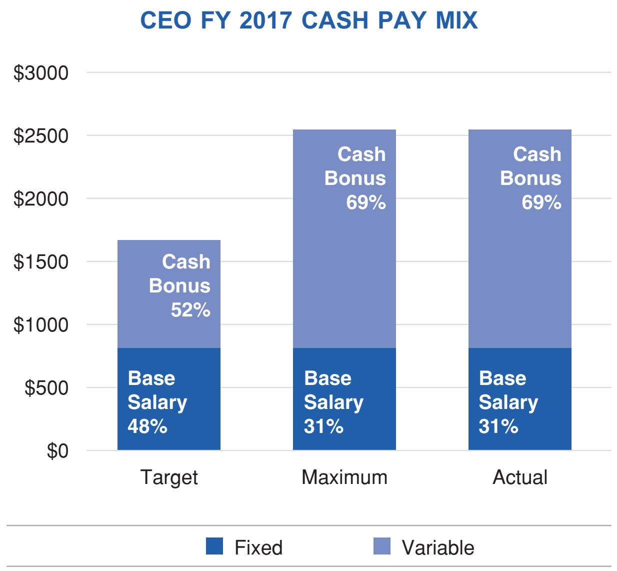
- **Tie compensation to performance of the core business**—Our fiscal 2017 annual cash incentive plan was dependent upon Coherent's achievement against two criteria: Adjusted EBITDA dollars and revenue. The committee determined that these were the most effective metrics for tying management's compensation directly to Coherent's core operating results for fiscal 2017.
- **Retain and hire talented executives**—Our executives should have market competitive compensation, and the committee orients our target total compensation generally near the 50th percentile of the committee's selected peer group (as noted below), with actual compensation falling above or below depending upon Coherent's financial performance. Additionally, certain compensation components may be above or below such percentile target and varies by individual executive.
- **Align compensation with stockholder interests**—Our stockholders benefit from continued strong operating performance by the Company, and we believe that having a significant portion of compensation tied to equity with both time and performance-based vesting requirements directly aligns management to stockholder returns. The performance-based RSUs make up the largest potential portion of the equity grants for our CEO. Grants of performance-based RSUs in fiscal 2015, 2016 and 2017 all have the same measurement period: a single vesting date three years from grant solely dependent upon the performance of Coherent's common stock price measured against the Russell Index, with target equal to meeting the index's performance. For each 1% that Coherent's common stock exceeds the performance of the Russell Index for the trailing 90 trading days from the vesting measurement date against the comparable period from the date of grant, the grant recipient will get a 2% increase in the number of shares above target (up to a maximum cap of 200% of target), and for each 1% below the Russell Index's performance, a 4% decrease in the number of shares below target (down to zero). As a result, compensation decreases faster for failing to achieve the target than it increases for exceeding it. If Coherent's stock underperforms the Russell Index performance by more than 25%, then there is no payout, but in order to hit the maximum possible payout, Coherent's stock has to outperform the index by at least 50%. Accordingly, for our executives to achieve the committee's targeted compensation, Coherent's common stock must at least meet the Russell Index. The chart below illustrates this structure:

PERFORMANCE RSU VESTING



Elements of Executive Compensation. During fiscal 2017, the compensation of our NEOs primarily consisted of (A) base salary, (B) participation in our annual variable compensation plan (referred to herein as our ''annual cash incentive plan'' or ''VCP''), and (C) long-term equity incentive awards divided between time-based RSUs and performance-based RSUs. For fiscal 2017, on average, approximately 81% of our NEO's target compensation and approximately 91% of our CEO's target compensation was delivered through our cash incentive plan and long-term equity incentives (both time and performance vesting).

As a demonstration of how executive cash compensation is tied to company performance, the cash compensation for our CEO during fiscal 2017 ***at target, maximum and actual*** can be illustrated as follows (dollars in thousands):



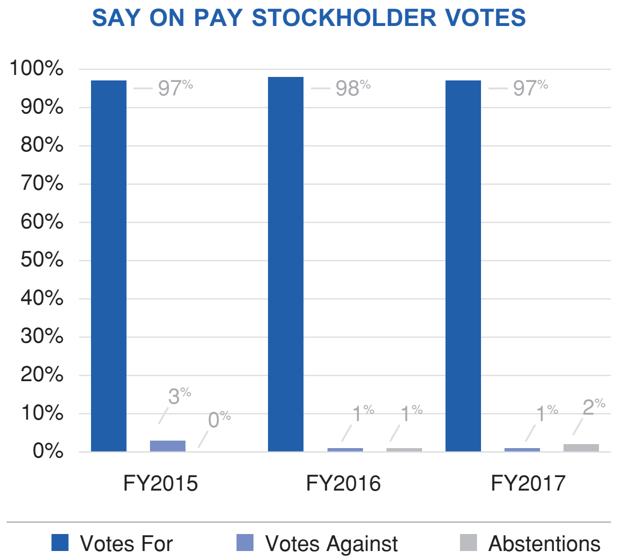
Our CEO's performance-based cash compensation was above target because the Company exceeded the performance criteria under our cash incentive plan. This resulted in performance-based cash compensation hitting the maximum cap.

Compensation Governance. ''Pay for performance'' has been and remains at the core of Coherent's executive compensation coupled with appropriately managing risk and aligning our compensation programs with long-term stockholder interests. We accomplish this primarily by having a majority of our NEOs' potential compensation being ''at risk'' through a combination of (i) a fiscal year variable cash incentive program tied to achievement of financial metrics and (ii) equity grant vesting tied to achievement of a performance metric. The committee monitors and considers evolving governance approaches and standards in executive compensation, as well as communications it receives directly from stockholders.

As more fully discussed below, recent examples of how this philosophy is applied and changes made pursuant to compensation practices as well as governance practices in effect during fiscal 2017, include:

- We have minimum share ownership requirements for our Chief Executive Officer and members of the Board as well as Executive Vice Presidents and Senior Vice Presidents who report to the CEO;
- Our performance-based RSU program is measured by the Company's stock price achievement against the Russell Index over a three year period, which the committee believes is a direct connection to long-term total stockholder return;
- The committee is composed entirely of directors who satisfy the standards of independence in Coherent's Corporate Governance Guidelines and Nasdaq listing standards;
- The committee makes decisions regarding Mr. Ambroseo's compensation without him present;
- Executive incentive compensation programs include limits on maximum payouts to contain the risk of excessive payouts;
- The committee utilizes an independent compensation consultant;
- We have eliminated material historical perquisites as an element of compensation for our NEOs;
- We have a recoupment or ''claw-back'' policy for our Chief Executive Officer and Chief Financial Officer, as described below;
- Our change-of-control plan provides for payment only in ''double-trigger'' circumstances, that is a change of control coupled with a termination of employment within a defined time period;
- None of our NEOs are entitled to any ''gross-up'' to offset the impact of IRS Code Sections 280G or 4999 in connection with a change of control; and
- None of our NEOs have employment agreements.

Our stockholders have historically strongly supported our executive compensation philosophy and design as seen in the significant majorities approving our "say on pay" proposal *(does not include broker non-votes; rounded):*



Role of Management

The committee regularly meets with Mr. Ambroseo, our Chief Executive Officer, to obtain recommendations with respect to the compensation programs, practices and packages for our NEOs other than Mr. Ambroseo. Additionally, Mr. Palatnik, our Executive Vice President and Chief Financial Officer, Mr. DiMarco, our Executive Vice President, General Counsel and Corporate Secretary, and members of our human resources department are regularly invited to meetings of the committee or otherwise asked to assist the committee.

The assistance of these individuals includes providing financial information and analysis for the committee and its compensation consultant, taking minutes of the meeting or providing legal advice, developing compensation proposals for consideration, and providing insights regarding our employees (executive and otherwise) and the business context for the committee's decisions. NEOs attend portions of committee meetings when invited by the committee, but leave the meetings when matters potentially affecting them are discussed.

Role of the Committee's Compensation Consultant

The committee utilizes the services of an independent compensation consultant and in fiscal 2017, engaged Compensia as its independent compensation consultant. Compensia assisted the committee by:

- Reviewing and analyzing our executive compensation program, including providing NEO tally sheets to the committee;
- Providing market data and ranges for fiscal 2017 compensation; and
- Providing further insight on compensation governance trends.

Additionally, in fiscal 2017, Compensia was retained by the Governance and Nominating Committee to review, analyze and make recommendations regarding compensation for service on the Board and its committees.

The independent compensation consultant serves at the discretion of the committee and is not permitted to do other work for Coherent unless expressly authorized by the committee. Since retention, Compensia has not performed any work for Coherent other than its work with the committee, the Board or other committees of the Board. The committee is focused on maintaining the independence of its compensation consultant and, accordingly, does not anticipate having its consultant perform any other work for the Company in addition to its direct work for the committee, the Board, or another committee of the Board. The committee has assessed the independence of Compensia and concluded that no conflict of interest exists.

The Company also participates in and maintains a subscription to the Radford Global Technology Survey. This survey provides benchmark data and compensation practices reports of a broad cross-section of technology companies similar in size to Coherent to assist us with employee compensation generally.

Pay Positioning Strategy and Benchmarking of Compensation

Philosophically the committee initially orients target total compensation for our NEOs generally near the 50th percentile of our peers (as measured by our designated peer group and, when applicable, data from the Radford Global Technology Survey), resulting in targeted total compensation that is competitive for performance that meets the objectives established by the committee. An NEO's actual salary, cash incentive compensation opportunity and equity compensation grant value may fall below or above the target position based on the individual's experience, seniority, skills, knowledge, performance and contributions as well as the historical pay structure for each executive. These factors are weighed individually by the committee in its judgment, and no single factor takes precedence over others nor is any formula used in making these decisions. In light of the Company's strong financial performance and the fact that the committee has designed the significant majority of the Chief Executive Officer's compensation to be at risk, including over 75% of his long-term equity compensation (at maximum), for fiscal 2017 the committee asked Compensia to provide information at the 50th and 75th percentile for our Chief Executive Officer. Given the significant ties to performance and with such a large percentage of his potential compensation at risk, the committee oriented his compensation target closer to the 75th percentile.

The Chief Executive Officer's review of the performance of the other NEOs is considered by the committee in making individual pay decisions. With respect to the Chief Executive Officer, the committee additionally considered the performance of Coherent as a whole and the views of other members of the Board regarding the Chief Executive Officer's performance. Actual realized pay is higher or lower than the targeted amounts for each individual based primarily on the Company's performance.

In analyzing our executive compensation program relative to target market positioning, the committee reviews information provided by its independent compensation consultant, which includes an analysis of data from peer companies' proxy filings with respect to similarly situated individuals at the peer companies (when available) and the Radford Global Technology Survey (as a supplement when peer group company data is unavailable). It is important to note that these are the peers selected by the committee. The committee uses criteria as described below in determining the appropriate peer group. There are proxy advisory services that use their own criteria to select peers for the Company and, accordingly, stockholders should be aware that these advisory services do not, in fact, follow the same methodology of the committee and there may be wide variances between the different peer groups used by these services. Any comparison of company performance or market data for executive compensation using a completely different peer group will, therefore, naturally result in a different analysis. We encourage our stockholders to consider the peer group used in any comparisons and direct any questions to the committee regarding such comparisons or any other matters when considering how to vote on Proposal Three.

For pay decisions made for fiscal 2017, after consulting with our independent compensation consultant, the committee determined that the following companies comprise the peer group for fiscal 2017:

Brocade (BRCD)	MKS Instruments (MKSI)
Entegris (ENTG)	National Instruments (NATI)
Fairchild Semiconductor (FCS)	Nuance Communications (NUAN)
Finisar (FNSR)	OSI Systems (OSIS)
FLIR Systems (FLIR)	Plantronics (PLT)
Infinera (INFN)	Polycom (PLCM) (subsequently acquired)
Keysight Technologies (KEYS)	Synaptics (SNYA)
Lumentum Holdings, Inc. (LITE)	Teradyne (TER)
Mentor Graphics (MENT)	ViaSat (VSAT)
Microsemi Corporation (MSCC)	

Several factors are considered in selecting the peer group, the most important of which are:

Primary Criteria

- Industry (primarily companies in the Electronic Equipment and Semiconductor sub-industry classifications defined by the Global Industry Classification Standard (GICS) system); and
- Revenue level (primarily companies with annual revenues between 0.5x-2.0x that of Coherent).

Secondary Criteria

- Market capitalization between 0.25x and 3.0x of Coherent;
- Market capitalization as a multiple of revenues of greater than 1.5x; and
- A disclosed peer of a peer company.

The committee reviews the composition of the peer group annually to ensure it is the most relevant set of companies to use for comparison purposes.

Components of Our Executive Compensation Program

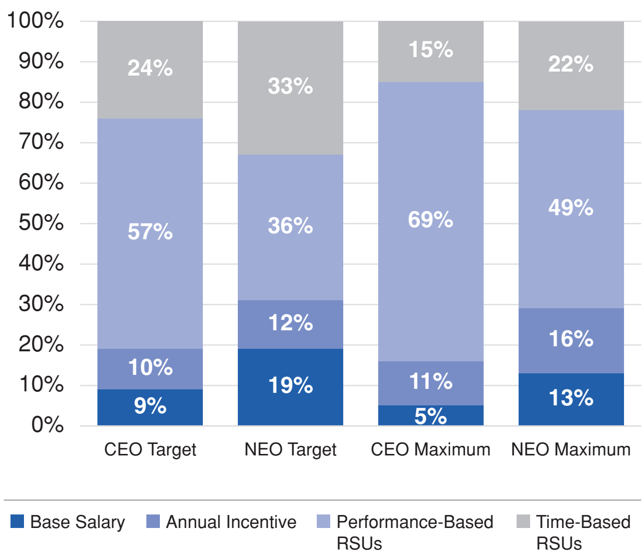
The principal components of our executive officer compensation and employment arrangements during fiscal 2017 included:

- Base salary;
- Annual cash incentive plan;

- Equity awards; and
- Other benefits.

These components were selected because the committee believes that a combination of salary, incentive pay and benefits is necessary to help us attract and retain the executive talent on which Coherent's success depends. The following table shows the components of total direct compensation ***at target*** for our NEOs as a group for fiscal 2017. In maintaining the design for fiscal 2017, the committee recognized the significant support received from the Company's stockholders for the compensation program design, as reflected in the continued overwhelming vote totals in favor of our executive compensation through our annual ''say-on-pay'' proposal.

CEO AND NEO (OTHER THAN CEO) FY2017 DIRECT COMPENSATION MIX



Base Salary

Base salary is the foundation to providing an appropriate total direct compensation package. We use base salary to fairly and competitively compensate our executives for the jobs we ask them to perform. This is the most stable component of our executive compensation program, as this amount is not at risk. The committee reviewed market data information provided by Compensia with respect to similarly situated individuals to assist it in determining the base salary for each NEO, depending upon the particular executive's experience, seniority, skills, knowledge, performance and contribution. After no increases in fiscal 2016, the committee increased the base salaries of our NEOs in fiscal 2017, as supported by compensation analysis provided by Compensia.

Variable Cash Incentive Compensation

A substantial portion of each individual's potential short-term compensation is in the form of variable incentive cash compensation tied to committee-established goals. In fiscal 2017, Coherent maintained one incentive cash program under which executive officers were eligible to receive annual cash incentives, the 2017 Variable Compensation Plan (''2017 VCP'').

2017 VCP

The 2017 VCP was designed as an ''at risk'' bonus compensation program to promote a focus on Coherent's growth and profitability. It provided an incentive compensation opportunity in line with targeted market rates to our NEOs. Under the 2017 VCP, participants were eligible to receive bi-annual bonuses (with measurement periods for the first half and the second half of the 2017 fiscal year). In setting the performance goals at the beginning of the fiscal year, the committee assessed the anticipated difficulty and importance to the success of Coherent of achieving the performance goals.

The actual awards (if any) payable for each semi-annual period depend on the extent to which actual performance met, exceeded or fell short of the goals approved by the committee. The 2017 VCP goals were tied to Coherent achieving varying levels of revenue and Adjusted EBITDA dollars (''Adjusted EBITDA''), with revenue weighted at 25% and Adjusted EBITDA weighted at 75%. Each performance metric is measured and paid out independently, but the revenue payout is capped at 100% achievement until Adjusted EBITDA reaches a minimum dollar target. Adjusted EBITDA is defined as operating income adjusted for VCP payouts, depreciation, amortization, stock compensation expenses, major restructuring charges and certain non-operating income or expense items, such as costs related to our acquisition of Rofin. The committee also reviews the financial impact of mergers and acquisitions to determine if any adjustments in VCP are required.

Each measurement period had the same range of between zero and 200%, with target at 100% of the executive's participation rate.

Fiscal 2017 Variable Compensation Plan Scale for NEOs

Revenue achievement for the first half of fiscal 2017 was \$768.9 million, with a corresponding cash bonus payout of 200% of target. Adjusted EBITDA achievement for the first half of fiscal 2017 was \$235.3 million, with a corresponding cash bonus payout of 200% of target. The weighted, combined cash bonus payout was 200% of target.

First Half Fiscal 2017 VCP Scale

Revenue $ *(in millions)*	**Payout**
$633.0 (threshold)	0%
$657.0 (target)	100%
$681.0	200%
$768.9 (actual)	***200% (actual)***

Adjusted EBITDA $ *(in millions)*	Payout
$145.0 (threshold)	0%
$161.3 (target)	100%
$177.5	200%
$235.3 (actual)	***200% (actual)***

Revenue achievement for the second half of fiscal 2017 was $954.4 million, with a corresponding cash incentive payout of 200%. Adjusted EBITDA achievement for the second half of fiscal 2017 was $311.3 million, with a corresponding cash incentive payout of approximately 200% of target. The weighted, combined cash incentive payout for the second half was 200% of target, which is the maximum bonus payout under the terms of the plan.

Second Half Fiscal 2017 VCP Scale

Revenue $ *(in millions)*	**Payout**
$723.0 (threshold)	0%
$747.0 (target)	100%
$771.0	200%
$954.4 (actual)	***200% (actual)***

Adjusted EBITDA $ *(in millions)*	Payout
$167.0 (threshold)	0%
$187.3 (target)	100%
$207.5	200%
$311.3 (actual)	***200% (actual)***

The tables below describe for each NEO under the 2017 VCP (i) the target percentage of base salary, (ii) the potential award range as a percentage of base salary, and (iii) the actual award earned for the measurement period in fiscal 2017.

First Half of Fiscal 2017

Named Executive Officer	**Target Percentage of Salary**	**Payout Percentage Range of Salary**	**Actual Award ($)[(1)]**	**Actual Award as a Percentage of Target Award[(2)]**
John Ambroseo	110%	0-220%	880,011	200%
Kevin Palatnik	75%	0-150%	322,514	200%
Mark Sobey	65%	0-130%	260,652	200%
Paul Sechrist	60%	0-120%	225,002	200%
Bret DiMarco	60%	0-120%	225,002	200%

Second Half of Fiscal of 2017

Named Executive Officer	**Target Percentage of Salary**	**Payout Percentage Range of Salary**	**Actual Award ($)[(1)]**	**Actual Award as a Percentage of Target Award[(2)]**
John Ambroseo	110%	0-220%	880,011	200%
Kevin Palatnik	75%	0-150%	322,514	200%
Mark Sobey	65%	0-130%	260,652	200%
Paul Sechrist	60%	0-120%	225,002	200%
Bret DiMarco	60%	0-120%	225,002	200%

(1) Reflects gross amounts earned during the applicable half of fiscal 2017.

(2) This reflects the aggregate bonuses earned by the NEOs for the applicable half of fiscal 2017 under the 2017 VCP.

Equity Awards

We believe that equity awards provide a strong alignment between the interests of our executives and our stockholders. We seek to provide equity award opportunities that are consistent with our compensation philosophy, with the potential for increase for exceptional financial performance, consistent with the reasonable management of overall equity compensation expense and stockholder dilution. Finally, we believe that long-term equity awards are an essential tool in promoting executive retention. For fiscal 2017, our long-term incentive program included the grant of time-based RSUs and performance-based RSUs. These components provide a reward for past corporate and individual performance and an incentive for future performance.

Our performance-based RSU grants are tied to the Company's performance and, as a result, may fluctuate from no vesting to vesting above target. When making its compensation decisions, the committee reviews a compensation overview prepared by its independent compensation consultant which reflects potential realizable value under current short and long-term compensation arrangements for the CEO. In addition, the committee reviews a compensation overview prepared by its compensation consultant reflecting the intrinsic value of unvested equity awards and performance-based RSUs at target and projected values for all of the NEOs.

Fiscal 2017 Equity Grants

For fiscal 2017, the committee based the equity program on a combination of time-based and performance-based RSUs over a three year period. In particular, the committee determined to measure achievement for the performance grants by the relative performance of Coherent's stock price in comparison to the Russell Index. The committee believed that using the Russell Index (in which Coherent was a member at the time of grant) as a proxy of total stockholder return directly aligns executive compensation with stockholder interest. The committee determined that both the performance-based and time-based RSU grants provide a further retention tool in that the time-based grants vest over three years with pro rata annual vesting and, for the performance-based grants, a single measurement period three years from the date of grant with three-year cliff vesting thereafter if such grants vest at all because such grants vest purely based on performance.

Performance-based RSU grants in fiscal 2017 vest solely dependent upon the performance of Coherent's common stock price measured against the Russell Index. For each 1% that Coherent's common stock exceeds the performance of the Russell Index for the trailing 90 trading days from the vesting measurement date against the comparable period from the date of grant, the grant recipient will get a 2% increase in the number of shares above target (up to a maximum cap of 200% of target), and for each 1% below the Russell Index's performance, a 4% decrease in the number of shares (down to zero). As a result, compensation decreases faster for failing to achieve the target than it increases for exceeding it. The performance-based RSUs make up the largest potential portion of the equity grants for our Chief Executive Officer.

The following table summarizes some of the key features of our general fiscal 2017 equity grants:

Fiscal 2017 Equity Grants

Type	RSUs and performance-based RSUs (PRSUs)
Vesting for RSUs	One-third each grant anniversary
Vesting for PRSUs	Single vesting date three years from grant
PRSU Metrics	100% tied to Russell Index Minimum vest: zero Target vest: Even with Russell Index Maximum vest: 200% of target

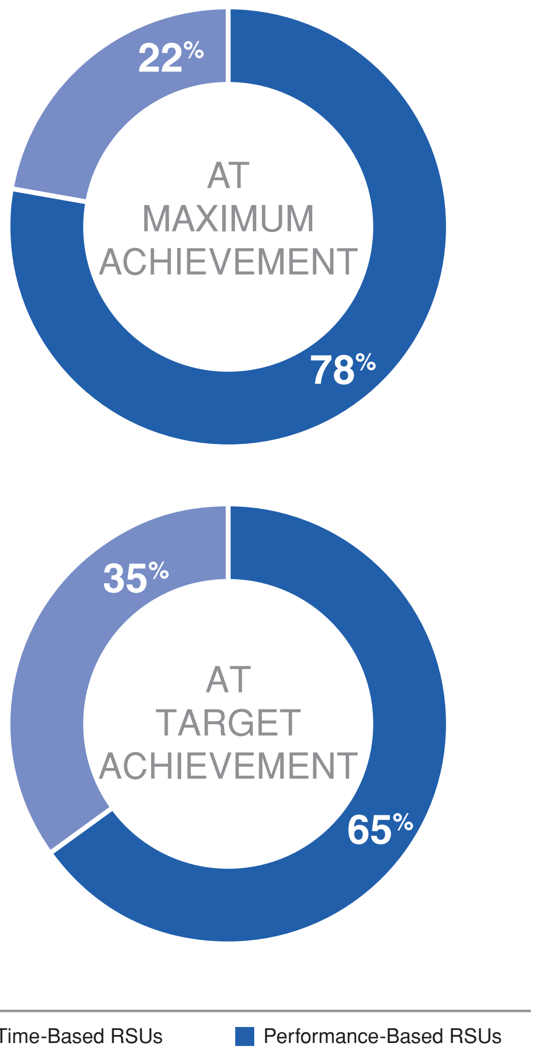
In addition to our general fiscal 2017 equity grants, the committee on November 15, 2016 determined in recognition of the acquisition and integration of Rofin to grant to certain integration team members (including certain executive officers) RSUs with a single vesting date one year from the date of grant. Messrs. Palatnik, Sechrist and DiMarco received such Rofin integration RSU grants in the amount of 1,049, 928 and 891 RSUs, respectively.

For our Chief Executive Officer, ***greater than half*** of his total equity awards are ***performance-based***. Accordingly, for our Chief Executive Officer, at target, approximately 65% of his equity awards are performance-based and at maximum achievement that percentage increases to approximately 78%.

In the event of a change of control of the Company, the performance-based grants will be measured, with respect to performance periods not yet completed, by the relative stock performance of Coherent in comparison to the Russell Index through the date of the change of control and such performance-based shares would, subject to the terms of the Change of Control Severance Plan, then convert to time-based vesting with a single vesting date at the three year anniversary of the grant.

The following charts show the ***aggregate composition of equity grants*** for fiscal 2017 to our Chief Executive Officer, at target and at ***maximum*** achievement under the terms of the performance-based grants:

FY 2017 CEO EQUITY GRANT COMPONENTS



The following tables reflect the number of shares subject to equity grants made to the NEOs during fiscal 2017:

Named Executive Officer	Time-Based RSU Grants	Performance-Based RSU Grants at Target	Performance-Based RSU Grants Range (issuance dependent upon achievement)
John Ambroseo	17,668	32,141	0 - 64,282
Kevin Palatnik	6,152	5,103	0 - 10,206
Mark Sobey	4,871	4,871	0 - 9,742
Paul Sechrist	5,568	4,640	0 - 9,280
Bret DiMarco	5,159	4,268	0 - 8,536

Equity Award Practices

Equity grants to our employees are driven by our annual review process. Grant guidelines are based on competitive market practices. Typically, an eligible employee is granted equity at the first committee meeting after beginning employment and may be eligible for periodic grants thereafter. Eligibility for and the size of grants are influenced by the then-current guidelines for non-executive officer grants and the individual's performance or particular requirements at the time of hire. No option grants have been made to an employee since 2010.

In fiscal 2017 the committee granted an aggregate of 303,390 shares subject to time-based and performance-based restricted stock units (at maximum), representing approximately 1.23% of Coherent's outstanding common stock as of September 30, 2017 (excluding automatic and initial grants to directors). With the assistance of Compensia, the committee has reviewed this burn rate relative to peer practices and proxy advisory firm guidance and found that the total dilution was consistent with the median of peer practices and such guidance.

During fiscal 2017 equity grants were only made at meetings of the committee.

Chief Executive Officer and Executive Minimum Stock Ownership Guidelines

The committee adopted mandatory stock ownership guidelines for our Chief Executive Officer during fiscal 2012. During the first quarter of fiscal 2018, the committee adopted enhanced stock ownership guidelines increasing the value of shares our Chief Executive Officer must hold to at least five times base salary and making our Executive Vice Presidents and Senior Vice Presidents reporting to the Chief Executive Officers subject to stock ownership guidelines of one times such individual's base salary. In the event that our Chief Executive Officer or other officer does not satisfy the minimum requirements, then 50% of the net after-tax shares (e.g. exercised options/shares received on the vesting of RSUs) are required to be held until the guidelines are met. As of December 31, 2017, Mr. Ambroseo held outstanding stock worth approximately 39 times his base salary and, accordingly, significantly exceeded the minimum stock ownership guidelines. Our other NEOs also exceeded the minimum stock ownership guidelines.

Other Benefits

Retirement Plans

U.S. based executive officers are eligible to participate in our 401(k) Retirement Plan on the same terms as all other U.S. employees, including a 4% Company matching contribution. Our 401(k) Retirement Plan is intended to be a tax-qualified plan and therefore is subject to certain Internal Revenue Code limitations on the dollar amounts of deferrals and Company contributions that can be made to plan accounts. These limitations apply to our more highly-compensated employees (including the NEOs).

We maintain a Deferred Compensation Plan for certain employees and members of the Board. The Deferred Compensation Plan permits eligible participants to defer receipt of compensation pursuant to the terms of the plan. The Deferred Compensation Plan permits participants to contribute, on a pre-tax basis, up to 75% of their base salary earnings, up to 100% of their bonus pay and commissions and up to 100% of directors' annual retainer earned in the upcoming plan year. We provide no matching or other additional contributions to such Deferred Compensation Plan. Plan participants may designate investments for deferral in a variety of different deemed investment options. To preserve the tax-deferred status of deferred compensation plans, the IRS requires that the available investment alternatives be ''deemed investments.'' Participants do not have an ownership interest in the funds they select; the funds are only used to measure the gains or losses that are attributed to the participant's deferral account over time.

The committee considers the Deferred Compensation Plan to be a reasonable and appropriate program because it promotes executive officer retention by offering a deferred compensation plan that is comparable to and competitive with what is offered by our peer group of companies.

Employee Stock Purchase Plan

Our stockholders have approved an employee stock purchase plan whereby employees can purchase shares for a discount, subject to various participation limitations. As employees, our NEOs are eligible to participate in this plan.

Severance and Change of Control Arrangements

Our Change of Control Severance Plan (the ''Change of Control Plan'') provides certain benefits in the event of a change of control of Coherent for certain executives, including each of our NEOs. Benefits are provided if there is a change in ownership of Coherent, a change in effective control of Coherent, or a change in ownership of a substantial portion of Coherent's assets (in each case as construed under Section 409A of the Internal Revenue Code and the regulations thereunder)(a ''change of control'') ***and*** within two years thereafter (or within two months prior thereto) the participant's employment is terminated without cause or voluntarily terminates following a constructive termination event. The plan's provisions are, therefore, of the variety commonly referred to as ''double-trigger.'' Importantly, the plan does not include any ''gross up'' provisions for the participants for the tax effects caused by any such benefits. The committee believes the Change of Control Plan serves as an important retention tool in the event of a pending change of control transaction.

The committee completed its review of the provisions of the Change of Control Plan during fiscal 2015 and determined to review the plan again in four years. Compensia assisted the committee in its review and analysis of the Change of Control Plan. The committee believes that reviewing the Change of Control Plan every four years allows for the right balance in providing certainty for the participants while providing the committee with the opportunity to revise the plan consistent with corporate governance best practices, evolving peer group practices and regulatory changes.

The committee does not consider the potential payments and benefits under these arrangements when making compensation decisions for our NEOs. These arrangements serve specific purposes unrelated to the determination of the NEOs' total direct compensation for a specific year.

Tax and Accounting Considerations

Accounting for Stock-Based Compensation—We account for stock-based compensation in accordance with the requirements of ASC 718. We also take into consideration ASC 718 and *other* generally accepted accounting principles in determining changes to policies and practices for our stock-based compensation programs.

Section 162(m) of the Internal Revenue Code—This section limits Coherent's income tax deduction of compensation for certain executive officers unless the compensation is less than $1 million during any fiscal year or with respect to certain compensation taxable in fiscal years before fiscal year 2019 or certain grants before November 3, 2017, is ''performance-based'' under Section 162(m). Certain performance-based RSUs granted before November 3, 2017 are intended to be fully tax-deductible. Cash compensation (including both base salary and payments under our 2017 VCP) and time-based full-value awards are not qualified as ''performance-based'' compensation under Section 162(m). Although the committee may consider the impact of Section 162(m) as well as other tax and accounting consequences when developing and implementing executive compensation programs, the committee retains the flexibility to design and administer compensation programs it believes are appropriate and in the best interests of the stockholders after taking various factors into consideration, including business conditions and the performance of the Company and the executive officer. In addition, due to the ambiguities and uncertainties as to the application and interpretation of Section 162(m), including with respect to the effective date and transition provisions for when certain ''performance-based'' compensation in excess of $1 million may no longer be deductible under the recently-enacted tax legislation, as well as operational issues, no assurances can be given that compensation, even if intended to satisfy the requirements for deductibility under Section 162(m), would in fact do so. The tax legislation signed into law in late 2017 may have additional impacts regarding the application of this and other Internal Revenue Code provisions.

Section 409A of the Internal Revenue Code—Section 409A imposes additional significant taxes in the event that an executive officer, director or service provider received ''deferred compensation'' that does not satisfy the requirements of Section 409A. We consider Section 409A in the design and operation of any plans.

Other Compensation Policies

To further align our executive compensation program with the interests of our stockholders, at the end of fiscal 2009, a committee of the Board approved a clawback policy for our Chief Executive Officer and Chief Financial Officer. The clawback policy provides that, in the event that there is an accounting restatement and there is a finding by the Board that such restatement was due to the gross recklessness or intentional misconduct of the Chief Executive Officer or Chief Financial Officer and it caused material noncompliance with any financial reporting requirement, then Coherent shall seek disgorgement of any portion of the bonus or other incentive or equity based compensation related to such accounting restatement received by such individual during the 12-month period following the originally filed financial document. The committee continues to monitor the SEC rule-making related to Section 954 of the Dodd-Frank Act. Following the final rules being adopted by the SEC, the committee intends to review and update its clawback policy. Under our Insider Trading Policy, no employees or directors are allowed to hedge or pledge Coherent securities.

Compensation Committee Interlocks and Insider Participation

During fiscal 2017, the Compensation and H.R. Committee of the Board consisted of Messrs. Vij (Chair), Flatley and Krause. None of the members of the committee has been or is an officer or employee of Coherent. None of our executive officers serve on the board of directors or compensation committee of a company that has an executive officer that serves on our Board or Compensation and H.R. Committee. No member of our Board is an executive officer of a company in which one of our executive officers serves as a member of the board of directors or compensation committee of that company.

Committee Independence

Each of the members of the committee qualifies as (i) an ''independent director'' under the requirements of The Nasdaq Stock Market, (ii) a ''non-employee director'' under Rule 16b-3 of the Securities Exchange Act of 1934 (the ''1934 Act''), (iii) an ''outside director'' under Section 162(m) of the Code and (iv) an ''independent outside director'' as that term is defined by ISS.

Compensation and H.R. Committee Report

The Compensation and H.R. Committee of the Board has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation and H.R. Committee recommended to the Board that the Compensation Discussion and Analysis be included in this proxy statement.

Respectfully submitted by the Compensation and H.R. Committee

Sandeep Vij, *Chair*
Jay Flatley
L. William Krause

RECONCILIATION TABLE—NON-GAAP EARNINGS PER SHARE FROM CONTINUING OPERATIONS

	Fiscal Year		
	2017	**2016**	**2015**
GAAP NET INCOME PER DILUTED SHARE FROM CONTINUING OPERATIONS	**$ 8.42**	**$ 3.58**	**$ 3.06**
Stock-based compensation	0.94	0.63	0.56
Amortization of intangible assets	1.72	0.24	0.25
Restructuring charges and other	0.34	—	—
Non-recurring tax benefit	(0.05)	(0.05)	(0.04)
Customs audit	—	—	0.05
Impairment of investment	—	—	0.05
Costs related to acquisition of Rofin-Sinar Technologies Inc.	0.70	0.26	—
Interest expense on Barclays debt commitment	0.07	0.03	—
(Gain) loss on hedge of Barclays debt commitment	(0.29)	0.06	—
Gain on business combination	(0.14)	—	(0.05)
Impairment of assets held for sale	0.08	—	—
Purchase accounting step up	0.77	—	0.01
NON-GAAP NET INCOME FROM CONTINUING OPERATIONS PER DILUTED SHARE	**$ 12.57**	**$ 4.75**	**$ 3.89**

RECONCILIATION TABLE—ADJUSTED EBITDA

	Fiscal Year		
(in millions)	**2017**	**2016**	**2015**
GAAP NET INCOME FROM CONTINUING OPERATIONS	**$ 208.6**	**$ 87.5**	**$ 76.4**
Income tax expense	93.4	35.4	23.2
Interest and other income (expense), net	27.4	6.7	1.1
Depreciation and amortization	104.5	34.4	33.0
Costs related to acquisition of Rofin-Sinar Technologies Inc.	17.6	9.8	—
Gain on business combination	(5.4)	—	(1.3)
Restructuring charges and other	12.3	—	1.3
Impairment of investment	—	—	2.0
Impairment of assets held for sale	2.9	—	—
Stock-based compensation	30.4	20.2	18.2
Purchase accounting step up	26.8	—	0.6
ADJUSTED EBITDA	**$ 518.5**	**$ 194.0**	**$ 154.5**

SUMMARY COMPENSATION AND EQUITY TABLES

Fiscal 2017 Summary Compensation Table

The table below presents information concerning the total compensation of our NEOs for the fiscal years ended September 30, 2017, October 1, 2016 and October 3, 2015.

Name and Principal Position	Fiscal Year	Salary ($)	Stock Awards ($)[2]	Non-Equity Incentive Plan Compensation ($)[3]	All Other Compensation ($)	Total ($)
John Ambroseo,	**2017**	**766,358**[1]	**7,488,106**	**1,760,021**	**10,754**[4]	**10,025,239**
President and	2016	625,019	3,558,430	943,185	12,631	5,139,265
Chief Executive Officer	2015	625,019	2,773,100	529,891	11,776	3,939,786
Kevin Palatnik[5]**,**	**2017**	**426,747**[1]	**1,613,899**	**645,029**	**10,754**[4]	**2,696,429**
Executive Vice President	2016	238,272	1,909,158	323,065	11,940	2,482,435
and Chief Financial Officer						
Mark Sobey,	**2017**	**396,467**[1]	**1,413,369**	**521,304**	**10,754**[4]	**2,341,894**
Executive Vice President and	2016	377,416	845,773	370,201	12,922	1,606,312
General Manager of OEM Laser Sources	2015	375,992	737,120	207,983	12,565	1,333,660
Paul Sechrist,	**2017**	**371,543**[1]	**1,464,189**	**450,004**	**10,754**[4]	**2,296,490**
Executive Vice President	2016	357,011	720,993	323,249	12,922	1,414,175
Worldwide Sales and Services	2015	355,663	628,385	151,337	10,754	1,148,241
Bret DiMarco,	**2017**	**368,947**[1]	**1,351,551**	**450,004**	**10,754**[4]	**2,181,256**
Executive Vice President,	2016	343,512	737,250	259,188	11,410	1,351,360
General Counsel and Corporate Secretary	2015	341,876	642,537	145,615	11,344	1,141,372

(1) Reflects the dollar amount of salary earned in fiscal 2017.

(2) Amounts shown reflect the grant date fair value of awards granted in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 718. Reflects unvested time-based and performance-based restricted stock units; there is no guaranty that the recipients will ultimately receive this amount, or any amount. See footnote 3 to the Grants of Plan-Based Awards table for additional information. No stock options were granted to the NEOs in fiscal years 2017, 2016 and 2015.

(3) Reflects the dollar amounts earned under the Variable Compensation Plan (VCP) during the applicable fiscal years.

(4) Reflects a 401(k) company match earned during fiscal year 2017.

(5) Mr. Palatnik joined the Company during fiscal year 2016. Accordingly, for fiscal 2016, compensation information is provided for only the portion of such fiscal year during which he was employed, and for fiscal 2015, no compensation information is provided.

Grants of Plan-Based Awards in Fiscal 2017

Except as set forth in the footnotes, the following table shows all plan-based equity and non-equity incentive awards granted to our NEOs during fiscal 2017. Our NEOs did not receive any option awards during fiscal 2017.

			Estimated Future Payouts Under Non-Equity Incentive Plan Awards			Actual Payouts Under Non-Equity Incentive Plan Awards	Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: # of Securities Underlying Options	Grant Date Fair Value
Name	Type	Grant Date	Threshold($)(1)	Target($)	Maximum($)	($)(2)	Threshold(#)	Target(#)	Maximum(#)	(#)	($)(3)
John Ambroseo	PRSU	11/15/2016					0	32,141	64,282		5,244,447
	RSU	11/15/2016								17,668	2,243,659
	1st semi-annual bonus		0	440,005	880,011	880,011					
	2nd semi-annual bonus		0	440,005	880,011	880,011					
	Total		**0**	**880,011**	**1,760,021**	**1,760,021**					
Kevin Palatnik	PRSU	11/15/2016					0	5,103	10,206		832,657
	RSU	11/15/2016								5,103	648,030
	RSU	11/15/2016								1,049	133,213
	1st semi-annual bonus		0	161,257	322,514	322,514					
	2nd semi-annual bonus		0	161,257	322,514	322,514					
	Total		**0**	**322,514**	**645,029**	**645,029**					
Mark Sobey	PRSU	11/15/2016					0	4,871	9,742		794,801
	RSU	11/15/2016								4,871	618,568
	1st semi-annual bonus		0	130,326	260,652	260,652					
	2nd semi-annual bonus		0	130,326	260,652	260,652					
	Total		**0**	**260,652**	**521,304**	**521,304**					
Paul Sechrist	PRSU	11/15/2016					0	4,640	9,280		757,109
	RSU	11/15/2016								4,640	589,234
	RSU	11/15/2016								928	117,847
	1st semi-annual bonus		0	112,501	225,002	225,002					
	2nd semi-annual bonus		0	112,501	225,002	225,002					
	Total		**0**	**225,002**	**450,004**	**450,004**					
Bret DiMarco	PRSU	11/15/2016					0	4,268	8,536		696,410
	RSU	11/15/2016								4,268	541,993
	RSU	11/15/2016								891	113,148
	1st semi-annual bonus		0	112,501	225,002	225,002					
	2nd semi-annual bonus		0	112,501	225,002	225,002					
	Total		**0**	**225,002**	**450,004**	**450,004**					

(1) Failure to meet a minimum level of performance would have resulted in no bonus paid out under the 2017 Variable Compensation Plan.

(2) Reflects the amount earned under the 2017 Variable Compensation Plan during fiscal 2017.

(3) Reflects the dollar amount recognized for financial statement reporting purposes (disregarding an estimate of forfeitures related to service-based vesting conditions) for fiscal 2017 in accordance with ASC 718, and includes grants made in fiscal 2017. The assumptions used in the valuation of these awards are set forth in Note 12 ''Employee Stock Award and Benefit Plans of the Notes to the Consolidated Financial Statements in our annual report on Form 10-K for fiscal 2017. For informational purposes, if the maximum level of performance for the PRSU awards was achieved, the value, calculated by multiplying the closing price of the Company's common stock on the date of grant by the number of shares issuable upon achievement of the maximum level of performance under the applicable PRSU is $8,163,171, $1,296,060, $1,237,137, $1,178,467 and $1,083,987, for Messrs. Ambroseo, Palatnik, Sobey, Sechrist and DiMarco, respectively. These amounts do not correspond to the actual value, if any, that will be recognized by the NEOs. See ''Compensation Discussion and Analysis—Equity Awards'' for a description of the PRSUs.

Option Exercises and Stock Vested in Fiscal 2017

The table below sets forth certain information for each NEO regarding the exercise of options and the vesting of stock awards during fiscal 2017, including the aggregate value realized upon such exercise or vesting.

	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)[(1)]
John Ambroseo	—	—	74,699	8,749,902
Kevin Palatnik	—	—	5,250	996,660
Mark Sobey	—	—	14,463	1,707,798
Paul Sechrist	—	—	12,331	1,456,049
Bret DiMarco	—	—	12,609	1,488,875

(1) Reflects the market price of our common stock on the vesting date.

Outstanding Equity Awards at Fiscal 2017 Year-End

The following table presents information concerning outstanding equity awards held by each NEO as of September 30, 2017.

		Option Awards				Stock Awards			
Name	Grant Date	Number of Securities Underlying Options (#) exercisable	Number of Securities Underlying Unexercised Options (#) unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)(1)	Market Value of Shares or Units of Stock That Have Not Vested ($)(2)	Equity incentive plan awards: Number of unearned shares, units or other rights that have not vested (#)	Equity incentive plan awards Market or payout value of unearned shares, units or other rights that have not vested ($)
John Ambroseo	11/15/2016	—	—	—	—	—	—	64,282(3)	15,117,198
	11/15/2016	—	—	—	—	17,668	4,154,984	—	—
	11/13/2015	—	—	—	—	—	—	68,500(4)	16,109,145
	11/13/2015	—	—	—	—	11,000	2,586,870	—	—
	11/3/2014	—	—	—	—	—	—	53,600(5)	12,605,112
	11/3/2014	—	—	—	—	4,533	1,066,026	—	—
Kevin Palatnik	11/15/2016	—	—	—	—	—	—	10,206(3)	2,400,145
	11/15/2016	—	—	—	—	5,103	1,200,073	—	—
	11/15/2016	—	—	—	—	1,049	246,693	—	—
	2/25/2016	—	—	—	—	—	—	15,740(4)	3,701,576
	2/25/2016	—	—	—	—	10,500	2,469,285	—	—
Mark Sobey	11/15/2016	—	—	—	—	—	—	9,742(3)	2,291,026
	11/15/2016	—	—	—	—	4,871	1,145,513	—	—
	11/13/2015	—	—	—	—	—	—	8,604(4)	2,023,403
	11/13/2015	—	—	—	—	5,736	1,348,935	—	—
	11/3/2014	—	—	—	—	—	—	7,362(5)	1,731,322
	11/3/2014	—	—	—	—	2,454	577,107	—	—
Paul Sechrist	11/15/2016	—	—	—	—	—	—	9,280(3)	2,182,378
	11/15/2016	—	—	—	—	4,640	1,091,189	—	—
	11/15/2016	—	—	—	—	928	218,238	—	—
	11/13/2015	—	—	—	—	—	—	7,334(4)	1,724,737
	11/13/2015	—	—	—	—	4,890	1,149,981	—	—
	11/3/2014	—	—	—	—	—	—	6,276(5)	1,475,927
	11/3/2014	—	—	—	—	2,092	491,976	—	—
Bret DiMarco	11/15/2016	—	—	—	—	—	—	8,536(3)	2,007,411
	11/15/2016	—	—	—	—	4,268	1,003,706	—	—
	11/15/2016	—	—	—	—	891	209,536	—	—
	11/13/2015	—	—	—	—	—	—	7,500(4)	1,763,775
	11/13/2015	—	—	—	—	5,000	1,175,850	—	—
	11/3/2014	—	—	—	—	—	—	6,418(5)	1,509,321
	11/3/2014	—	—	—	—	2,139	503,029	—	—

(1) Generally, time-based RSU grants vest 1/3 per year on each anniversary of the grant date. For fiscal year 2017, in recognition of the integration efforts associated with the acquisition of Rofin, additional time-based RSUs were granted on November 15, 2016 with a single vesting date one year from the grant date with respect to 1,049, 928 and 891 shares to Messrs. Palatnik, Sechrist and DiMarco, respectively.

(2) Market value is determined by multiplying the number of shares by $235.17, the closing price of our common stock on September 29, 2017, the last trading date of fiscal 2017.

(3) The performance-based RSU vesting determination date is November 15, 2019. The performance-based RSUs will vest in an amount which is 0-200% subject to the achievement of certain performance metrics. The amount reflected in the table is the maximum amount or 200%.

(4) The performance-based RSU vesting determination date is November 13, 2018. The performance-based RSUs will vest in an amount which is 0-200% subject to the achievement of certain performance metrics. The amount reflected in the table is the maximum amount or 200%.

(5) The performance-based RSU vesting determination date was November 3, 2017. The performance-based RSUs vested at 200% based on the achievement of certain performance metrics.

Fiscal 2017 Non-Qualified Deferred Compensation

For a description of our Deferred Compensation Plan, see ''Compensation Discussion and Analysis-Retirement Plans.'' The following table presents information regarding the non-qualified deferred compensation activity for each NEO during fiscal 2017:

Name	Executive Contributions in last FY ($)(1)	Registrant Contributions in Last FY ($)(2)	Aggregate Earnings in Last FY ($)	Aggregate Withdrawals/ Distributions ($)	Aggregate Balance at Last FYE ($)(3)
John Ambroseo	603,396	—	1,245,682	—	11,037,274
SRP(4)	—	—	227,686	—	1,910,628
Kevin Palatnik	305,809	—	42,532	—	348,341
Mark Sobey	488,495	—	124,059	—	1,092,969
Paul Sechrist	227,826	—	176,804	(12,794)	1,355,619
SRP(4)	—	—	47,888	—	288,065
Bret DiMarco	—	—	8,941	(54,290)	52,788

(1) Amounts in this column consist of salary and/or bonus earned during fiscal 2017, which is also reported in the Summary Compensation Table.

(2) Company contributions to our Deferred Compensation Plan were terminated on December 31, 2010.

(3) The deferred compensation in a participant's account is fully vested and is credited with positive or negative investment results based upon plan investment options selected by the participant.

(4) Amounts include account balances (including earnings) from the Supplementary Retirement Plan (SRP), which was suspended on December 31, 2004. The Deferred Compensation Plan is the only current non-qualified deferred compensation plan available for executive management.

Potential Payments upon Termination or Change of Control

The following table shows the potential payments and benefits that we (or our successor) would be obligated to make or provide upon termination of employment of each our NEOs pursuant to the terms of the Change of Control Severance Plan. Other than this plan, there are no other executive employment agreements or other contractual obligations triggered upon a change of control. For purposes of this table, it is assumed that each NEO's employment terminated at the close of business on September 29, 2017 (the last trading date of fiscal 2017). These payments are conditioned upon the execution of a form release of claims by the NEO in favor of us. The amounts reported below do not include the nonqualified deferred compensation distributions that would be made to the NEOs following a termination of employment (for those amounts and descriptions, see the prior table). There can be no assurance that a triggering event would produce the same or similar results as those estimated below if such event occurs on any other date or at any other price, of if any other assumption used to estimate potential payments and benefits is not correct. Due to the number of factors that affect the nature and amount of any potential payments or benefits, any actual payments and benefits may be different. These are aggregate payments and do not reflect such individual's net after tax benefit. No officer is entitled to any ''gross up'' to offset the impact of IRS Code Section 280G.

NEO	Multiplier for Base Salary and Bonus	Nature of Benefit	Termination Other than for Change of Control	Change of Control Termination ($)
John Ambroseo	2.99X	Salary Severance(1)	—	2,392,029
		Bonus Severance(1)	—	2,631,232
		Equity Compensation Acceleration(2)	—	51,639,334
		Aggregate Healthcare Related Monthly Payment(3)	—	99,000
		TOTAL BENEFIT		**56,761,595**
Kevin Palatnik	2X	Salary Severance(1)	—	860,038
		Bonus Severance(1)	—	645,029
		Equity Compensation Acceleration(2)	—	10,017,772
		Aggregate Healthcare Related Monthly Payment(3)	—	66,000
		TOTAL BENEFIT		**11,588,839**
Mark Sobey	2X	Salary Severance(1)	—	802,006
		Bonus Severance(1)	—	521,304
		Equity Compensation Acceleration(2)	—	9,117,306
		Aggregate Healthcare Related Monthly Payment(3)	—	66,000
		TOTAL BENEFIT		**10,506,616**
Paul Sechrist	2X	Salary Severance(1)	—	750,006
		Bonus Severance(1)	—	450,004
		Equity Compensation Acceleration(2)	—	8,334,425
		Aggregate Healthcare Related Monthly Payment(3)	—	66,000
		TOTAL BENEFIT		**9,600,435**
Bret DiMarco	2X	Salary Severance(1)	—	750,006
		Bonus Severance(1)	—	450,004
		Equity Compensation Acceleration(2)	—	8,172,628
		Aggregate Healthcare Related Monthly Payment(3)	—	66,000
		TOTAL BENEFIT		**9,438,638**

(1) Reflects salary as in effect as of September 29, 2017. Bonus severance is based on target bonus as a percentage of salary as in effect as of September 29, 2017.

(2) Equity Compensation Acceleration represents the in-the-money value of unvested stock options, time-based restricted stock units and performance-based restricted stock units, in each case as of September 29, 2017 (the last trading date before the end of our fiscal year) at the closing stock price on that date ($235.17). The value of accelerated stock options is

calculated by multiplying the number of unvested shares subject to acceleration by the difference between the exercise price and the closing stock price on September 29, 2017; and the value of accelerated restricted stock units is calculated by multiplying the number of unvested shares subject to acceleration by the closing stock price on September 29, 2017. This assumes immediate release and vesting of the performance-based restricted stock units at the maximum, or 200% of target, achievement. The amounts reflected for Equity Compensation Acceleration do not reflect any applicable taxes, just gross proceeds. Since the table assumes a triggering event on September 29, 2017, only those stock options and restricted stock units outstanding as of that date are included in the table.

(3) Aggregate Healthcare Related Monthly Payment is a monthly payment of $2,750 in lieu of receiving Company-subsidized COBRA benefits, life insurance premiums and/or other welfare benefits, multiplied by 36 months for our Chief Executive Officer and 24 months for our other NEOs.

EQUITY COMPENSATION PLAN INFORMATION

The following table provides information as of September 30, 2017 about the Company's equity compensation plans under which shares of our common stock may be issued to employees, consultants or members of the Board:

Plan category	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights[1]	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
Equity compensation plans approved by security holders	598,213[2]	$ 44.74	5,375,485[3]
Equity compensation plans not approved by security holders	—	—	—
TOTAL	**598,213**	**$ 44.74**	**5,375,485**

(1) The weighted average exercise price does not reflect shares that will be issued upon the vesting of outstanding RSUs or upon the exercise of rights under the Employee Stock Purchase Plan.

(2) This number does not include any options that may be assumed by us through mergers or acquisitions; however, we do have the authority, if necessary, to reserve additional shares of our common stock under these plans to the extent necessary for assuming such options.

(3) This number consists of 424,882 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan and 4,950,603 shares reserved for future issuance under the 2011 Plan.

CERTAIN RELATIONSHIPS AND RELATED PERSON TRANSACTIONS

Review, Approval or Ratification of Related Person Transactions

In accordance with the charter of the Audit Committee, the members of the Audit Committee, all of whom are independent directors, review and approve in advance any proposed related person transactions. Additionally, from time to time the Board may directly consider these transactions. For purposes of these procedures, the individuals and entities that are considered ''related persons'' include:

- Any of our directors, nominees for director and executive officers;
- Any person known to be the beneficial owner of five percent or more of our common stock (a ''5% Stockholder''); and
- Any immediate family member, as defined in Item 404(a) of Regulation S-K, of a director, nominee for director, executive officer and 5% Stockholder. We will report all such material related person transactions under applicable accounting rules, federal securities laws and SEC rules and regulations.

Related Person Transactions

We have entered into indemnification agreements with each of our executive officers and directors. Such indemnification agreements require us to indemnify these individuals to the fullest extent permitted by law. We also intend to execute these agreements with our future directors and officers.

REPORT OF THE AUDIT COMMITTEE OF THE BOARD OF DIRECTORS

The Audit Committee is responsible for overseeing our accounting and financial reporting processes and audits of our financial statements, including reviewing and approving the fees for the performance of the audit by our independent auditors. As set forth in its charter, the Audit Committee acts only in an oversight capacity and relies on the work and assurances of both management, which has primary responsibilities for our financial statements and reports, as well as the independent registered public accounting firm that is responsible for expressing an opinion on the conformity of our audited financial statements to generally accepted accounting principles.

The Audit Committee met ten (10) times either in person or by telephone and acted one (1) time by unanimous written consent during fiscal 2017. In the course of these meetings, the Audit Committee met with management, the internal auditors and our independent registered public accounting firm and reviewed the results of the internal and external audit examinations, evaluations of our internal controls and the overall quality of our financial reporting.

The Audit Committee believes that a candid, substantive and focused dialogue with the internal auditors and the independent registered public accounting firm is fundamental to the Audit Committee's oversight responsibilities. To support this belief, the Audit Committee periodically meets separately with the internal auditors and the independent auditors, without management present. In the course of its discussions in these meetings, the Audit Committee asked a number of questions intended to bring to light any areas of potential concern related to our financial reporting and internal controls. These questions include:

- Are there any significant accounting judgments, estimates or adjustments made by management in preparing the financial statements that would have been made differently had the auditors themselves prepared and been responsible for the financial statements;
- Based on the auditors' experience, and their knowledge of our business, do our financial statements fairly present to investors, with clarity and completeness, our financial position and performance for the reporting period in accordance with generally accepted accounting principles and SEC disclosure requirements;
- Based on the auditors' experience, and their knowledge of our business, have we implemented internal controls and internal audit procedures that are appropriate for our business.

The Audit Committee approved the engagement of Deloitte & Touche LLP as our independent registered public accounting firm for fiscal 2017, including the fees to be paid for their audit work, and reviewed with the internal auditors and independent registered public accounting firm their respective overall audit scope and plans. In approving Deloitte & Touche LLP, the Audit Committee considered the qualifications of Deloitte & Touche LLP and discussed with Deloitte & Touche LLP their independence, including a review of the audit and non-audit services provided by them to us. The Audit Committee also discussed with Deloitte & Touche LLP the matters required to be discussed by Auditing Standard No. 16, ''Communications with Audit Committees'' issued by the Public Company Oversight Board (PCAOB), and it received the written disclosures and the letter from Deloitte & Touche LLP required by the applicable requirements of the Public Company Accounting Oversight Board regarding Deloitte & Touche LLP's communications with the Audit Committee concerning independence.

Management has reviewed and discussed the audited financial statements for fiscal 2017 with the Audit Committee, including a discussion of the quality and acceptability of the financial reporting, the reasonableness of significant accounting judgments and estimates and the clarity of disclosures in the financial statements. In connection with this review and discussion, the Audit Committee asked a number of follow-up questions of management and the independent registered public accounting firm to help give the Audit Committee comfort in connection with its review.

In reliance on the reviews and discussions referred to above, the Audit Committee recommended to the Board that the audited financial statements be included in the annual report on Form 10-K for the fiscal year ended September 30, 2017, for filing with the SEC.

Respectfully submitted by the Audit Committee.

Susan James, *Chair*
Pamela Fletcher
Garry Rogerson
Steve Skaggs

OTHER MATTERS

We know of no other matters to be submitted to the meeting. If any other matters properly come before the meeting, it is the intention of the persons named in the enclosed Proxy to vote the shares they represent as the Board may recommend.

Dated: January 29, 2018

By Order of the Board of Directors

John R. Ambroseo
President and Chief Executive Officer

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

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 September 30, 2017

or

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

Commission File Number: 001-33962

COHERENT, INC.

Delaware (State or other jurisdiction of incorporation or organization)	**94-1622541** (I.R.S. Employer Identification No.)
5100 Patrick Henry Drive, Santa Clara, California (Address of principal executive offices)	**95054** (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 ☐

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, a smaller reporting company or an emerging growth company. See definitions of "large accelerated filer", "accelerated filer", "smaller reporting company" and "emerging growth 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 ☐ Emerging growth 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 27, 2017, 24,819,081 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 3, 2017, of Coherent, Inc., held by nonaffiliates was approximately $3,848,333,286. 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 2018 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 September 30, 2017.

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SPECIAL NOTE REGARDING FORWARD LOOKING STATEMENTS

This annual report contains certain forward-looking statements. These forward-looking statements include, without limitation, statements relating to:

- expansion into, and financial returns from, new markets;
- maintenance and development of current and new customer relationships;
- enhancement of market position through existing or new technologies;
- timing of new product introductions and shipments;
- 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;
- positioning in the marketplace and gains of market share;
- design and development of products, services and solutions;
- control of supply chain and partners;
- protection of intellectual property rights;
- compliance with environmental and safety regulations;
- net sales and operating results;
- capital spending;
- order volumes;
- variations in stock price;
- growth in our operations;
- trends in our revenues, particularly as a result of seasonality;
- controlling our costs;
- sufficiency and management of cash, cash equivalents and investments;
- acquisition efforts, payment methods for acquisitions and utilization of technology from our acquisitions, and potential synergies and benefits;
- sales by geography;
- effect of legal claims;
- expectations regarding the payment of future dividends;
- effect of competition on our financial results;
- plans to renew leases when they expire;

- compliance with standards;
- effect of our internal controls;
- optimization of financial results;
- repatriation of funds;
- accounting for goodwill and intangible assets, inventory valuation, warranty reserves and taxes; and
- impact from our use of financial instruments.

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, except to the extent required by law.

PART I

ITEM 1. BUSINESS

GENERAL

Business Overview

Our fiscal year ends on the Saturday closest to September 30. Fiscal years 2017, 2016 and 2015 ended on September 30, October 1, and October 3, respectively, and are referred to in this annual report as fiscal 2017, fiscal 2016 and fiscal 2015 for convenience. Fiscal years 2017 and 2016 included 52 weeks and fiscal year 2015 included 53 weeks.

We are one of the world's leading providers of lasers, laser-based technologies and laser-based system solutions in a broad range of commercial, industrial and scientific 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.

As a result of the acquisition of Rofin-Sinar Technologies Inc. ("Rofin") in the first quarter of fiscal 2017 (see discussion below), we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company: OEM Laser Sources ("OLS") and Industrial Lasers & Systems ("ILS"). This segment reorganization was based upon the organizational structure of the combined company and how the chief operating decision maker ("CODM") receives and utilizes information provided to allocate resources and make decisions. Accordingly, our segment information was restated retroactively for all periods presented. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment is focused on high performance laser sources and complex optical sub-systems typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing.

Income from operations is the measure of profit and loss that our chief operating decision maker ("CODM") uses to assess performance and make decisions. Income 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. Our common stock is listed on the NASDAQ Global Select Market and we are a member of the Standard & Poor's MidCap 400 Index and the Russell 1000 Index.

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. 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.

RECENT EVENTS

On November 7, 2016, we completed our acquisition of Rofin pursuant to the Merger Agreement dated March 16, 2016. Rofin is one of the world’s leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components. The acquisition was an all-cash transaction at a price of $32.50 per share of Rofin common stock. The aggregate consideration paid by us to the former Rofin stockholders was approximately $904.5 million, excluding related transaction fees and expenses. We also paid $15.3 million due to the cancellation of options held by employees of Rofin. We funded the payment of the aggregate consideration with a combination of our available cash on hand and the proceeds from the Euro Term Loan described below. As a condition of the acquisition, we were required to hold separate and divest Rofin’s low power CO_2 laser business based in Hull, United Kingdom (the “Hull Business”) and have reported this business separately as a discontinued operation in this Form 10-K for the year ending September 30, 2017. We completed the divestiture of the Hull Business on October 11, 2017, after receiving approval for the terms of the sale from the European Commission. See Note 3, “Business Combinations” in the Notes to Consolidated Financial Statements.

On November 7, 2016, we entered into a Credit Agreement (the “Credit Agreement”) with Barclays Bank PLC (“Barclays”), Bank of America, N.A. (“BAML”) and MUFG Union Bank, N.A. (“MUFG”). The Credit Agreement provided for a 670.0 million Euro senior secured term loan facility (the “Euro Term Loan”) and a $100.0 million senior secured revolving credit facility. On November 7, 2016, the Euro Term Loan was drawn in full and its proceeds were used to finance our acquisition of Rofin and pay related fees and expenses. Also, on November 7, 2016, we used 10.0 million Euros of the capacity under the revolving credit facility for the issuance of a letter of credit.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the “Repricing Amendment”) to the Credit Agreement. See Note 9, “Borrowings” in the Notes to Consolidated Financial Statements.

During fiscal 2017, we made payments on our Euro Term Loan of a total of 156.7 million Euros, including voluntary payments of a total of 150.0 million Euros.

In relation to our acquisition of Rofin, we paid Barclays, our financial advisor, a fee of approximately $9.5 million, $1.0 million of which was paid upon delivery of the fairness opinion in the second quarter of fiscal 2016, and the remaining portion of which was paid upon consummation of the acquisition in the first quarter of fiscal 2017; these fees were recorded in selling, general and administrative expense in our consolidated statements of operations. We also paid Barclays, BAML and MUFG together approximately $17.0 million and $5.6 million for underwriting and upfront fees, respectively, upon the close of the financing on November 7, 2016; these fees are recorded as debt issuance costs on our consolidated balance sheets.

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 of 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 (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, solid state crystal or fiber. Lasers can also be classified by their 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 own 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 a broad array of industries that include microelectronics, flat panel displays, machine tool, automotive 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 (e.g. sheet metal cutting). Second, there are new applications where the laser is the enabling tool that makes the work possible, as in the conversion of amorphous silicon into poly crystalline silicon at low temperatures, where lasers are used in the manufacturing of high resolution flexible OLED displays found in the latest smart phones, tablet and laptop computers.

Key laser applications include: semiconductor inspection; manufacturing of advanced printed circuit boards (“PCBs”); flat panel display manufacturing; solar cell production; medical and bio-instrumentation; materials processing; metal cutting and welding; industrial process and quality control; marking; imaging and printing; graphic arts and display; and research and development. For example, ultraviolet (“UV”) lasers are enabling the continuous move towards miniaturization, which drives innovation and growth in many markets. In addition, the advent of industrial grade ultrafast lasers continues to open up new applications for laser processing.

Coherent occupies a unique position in the industry thanks to the breadth and depth of our product and technology portfolio, which includes lasers, optics, laser beam delivery components and laser systems. Working closely with our customers we have developed specialized solutions that include lasers, delivery and process optics in complete assemblies (sub-systems or “rails”), and for certain applications and markets we have also developed parts handling and automation to build complete laser production tools.

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 increase our market share in the mid to high power material processing applications.
- **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-based compensation expense, major restructuring costs and certain other non-operating income and expense items, such as costs related to our acquisition of Rofin. Key initiatives for EBITDA improvements include utilization of our Asian manufacturing locations, optimizing our supply chain and continued leveraging of our infrastructure.
- **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.

APPLICATIONS

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

The following table sets forth, for the periods indicated, the percentages of total net sales by market application:

	Fiscal 2017	Fiscal 2016	Fiscal 2015
	Percentage of total net sales	Percentage of total net sales	Percentage of total net sales
Consolidated:			
Microelectronics	51.9%	53.1%	50.6%
Materials processing	29.7%	14.5%	13.8%
OEM components and instrumentation	11.8%	18.8%	21.0%
Scientific and government programs	6.6%	13.6%	14.6%
Total	100.0%	100.0%	100.0%

Microelectronics

Nowhere is the trend towards miniaturization and higher performance more prevalent than in the Microelectronics market where smart phones, tablets, personal computers ("PC's"), televisions ("TV's") and "wearables" are driving advances in displays, integrated circuits and PCBs. In response to market demands and consumer 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 three major markets in the microelectronics industry: (1) flat panel display ("FPD") manufacturing, (2) advanced packaging and interconnects ("API") and (3) semiconductor front-end ("SEMI").

Microelectronics—flat panel display manufacturing

The high-volume consumer market is driving the production of FPDs in applications such as mobile phones, tablets, laptop computers, TVs and wearables. There are several types of established and emerging displays based on quite different technologies, including liquid crystal ("LCD") and organic light emitting diodes ("OLED"). Each of these technologies utilize laser applications in their manufacturing process to enable improved yields, higher process speed, improved battery life, lower cost and/or superior display brightness, resolution and refresh rates.

Several display types require a high-density pattern of silicon thin film transistors ("TFTs"). If this silicon is polycrystalline as opposed to amorphous, the display 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 as well as flexible displays based on plastic substrates. Our excimer lasers provide a unique solution for LTPS because they are the only industrial-grade excimer lasers optimized for this application. The current state-of-the-art product for this application is our excimer Vyper laser and LineBeam systems. These systems deliver power ranges of 1200W to 3600W, depending on the system, enabling a critical manufacturing process step with Generation 4, 5, 5.5 and 6 substrates. These systems are integral to the manufacturing process on all leading LTPS-based smart phone displays, with the highest commercially available pixel densities of greater than 300 pixels per inch (ppi), with the current trends going to even higher ppi (>500 ppi) for high end smart phones, and hold the potential for deployment in tablet, laptop and OLED TV displays. Excimer based LTPS is also enabling a new generation of flexible OLED displays which are currently undergoing rapid growth as their adoption into smart phones accelerates.

A modern flat panel display incorporates a number of different layers, some of which are thin films that need to be cut or structured. As film thicknesses decrease over time, lasers are becoming the tool of choice to process these materials. Our DIAMOND CO_2 and Rapid series ultrafast lasers are used for cutting FPD films.

We have developed a proprietary technology for cutting of brittle materials such as glass and sapphire without debris and with zero kerf called SMART Cleave™, which is used for cutting brittle materials used in displays. This technology uses ultrafast lasers coupled with proprietary optics.

Our AVIA, Rapid, Monaco and DIAMOND CO_2 and CO lasers are also used in other production processes for FPDs. These processes include drilling, cutting, patterning, marking and yield improvement.

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. This search includes new types of materials, such as low-k and thinner silicon. Our AVIA, Rapid, Monaco and Matrix lasers provide economical methods of cutting and scribing these wafers while delivering higher yields than traditional mechanical methods.

There are similar trends in chip packaging and PCB manufacturing requiring more compact packaging and denser interconnects. In many cases, lasers present enabling technologies. For instance, lasers are now the only economically practical method for drilling microvias in chip substrates and in both rigid and flexible PCBs. These microvias are tiny interconnects that are essential for enabling high-density circuitry commonly used in smart phones, tablets and advanced computing systems. Our DIAMOND CO_2 and AVIA diode pumped solid state ("DPSS") 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. In addition, multi-layer circuit boards require more flexible production methods than conventional printing technologies can offer, which has led to widespread adoption of laser direct imaging ("LDI"). Our Paladin laser is used for this application.

Lasers have also become a valuable tool in high-brightness ("HB") light-emitting diode ("LED") manufacturing, improving LED performance and yield. LEDs have enjoyed widespread adoption as the light source in all categories of LCD displays, from phones to full size TVs and are also moving into general lighting. Our lasers are used in back-end processing of HB-LEDs.

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.

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, Excimer and ion lasers are used to detect and characterize defects in semiconductor chips.

Materials processing

The materials processing segment is comprised of four major markets: (1) automotive, (2) machine tool, (3) medical device and (4) consumer goods, as well a number of smaller markets. It is the most diverse of all the segments we serve and a large cross section of our products are used in this segment. Our sales in this segment include laser sources, laser rails, beam delivery components, laser diagnostic equipment and complete laser tools. At a high level, the drivers for laser deployment within the materials processing segment are faster processing with higher yields, processing of new and novel materials, more environmentally friendly processes and higher precision. With the broadest product portfolio in the laser industry, we offer solutions for almost any application on any material to our customers. The most common applications include cutting, welding, joining, drilling, perforating, scribing, engraving and marking.

Lasers are used in a number of applications in the automotive industry, from fine processing of high precision parts to marking, as well as cutting of metals and welding large components such as gear boxes and car bodies. We serve this industry with a number of our products including ultrafast, DPSS, CO_2, diode and fiber lasers as well as rails and tools in the areas of marking, scribing, cutting and welding.

In the machine tool industry lasers have been the solution of choice for cutting metal for some time. Traditionally this was a market for high power CO_2 lasers, but with the advent of high power fiber lasers, a transition away from CO_2 took place in many applications. That transition is substantially done since fiber lasers are used in the majority of metal cutting applications. We serve this market with our high power fiber and CO_2 lasers. We are vertically integrated with active fiber manufacturing and are executing plans to be integrated with world class diodes, which makes us very well positioned to succeed in the high power fiber laser market in the intermediate and long term. We have a complete line of high power fiber lasers in power levels up to 10 kW. We offer lasers with different performance points in terms of power levels and beam profiles to address specific applications, including single mode lasers and advanced beam shaping options. Additive manufacturing or 3D printing is another growing market where lasers have seen rapid growth. We serve this market with CO_2 and DPSS lasers.

The medical device market is characterized by its need for high precision manufacturing with high levels of quality control which lends itself very well to laser manufacturing. Applications include fine cutting and welding in addition to corrosive resistant marking. We serve this market with lasers as well as tools.

In the consumer goods market, we serve a large variety of applications in packaging, digital printing, jewelry, textiles, security and consumer electronics. We serve these industries with almost all of our products from lasers to laser tools. As a consequence, this broad segment represents a stable and growing market for us.

In summary, we serve the materials processing segment with a very broad product portfolio. Laser sources include the Diamond series mid-power CO and CO_2 lasers; the DC and PRC series of high power CO_2 lasers; high power fiber lasers; the DF series of high power diode laser systems; the StarFiber mid-power fiber lasers; the NuQ Q-switched fiber lasers; the COMPACT, MINI and EVOLUTION series of low and mid power diode lasers; the AViA, Matrix, Flare, Helios and LDP DPSS lasers; the Monaco and Rapid series of ultrafast lasers; and the SLS, KLS, FLS and NA series of lamp pumped lasers. Laser tools include the Performance, Tool, Open, and Integral series of manual welding systems; the UW and MPS series of modular and highly configurable laser processing systems; the EasyMark, EasyJewel, LabelMarker Advanced and Combiline laser marking systems; the META laser cutting tools; and the PWS mini welding system. Laser rails include the PowerLine series for marking; the PWS welding system; the QFS laser scribing system; and the PerfoLas and StarShape CO_2 laser based systems.

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, machine vision and defense applications. We also support the laser-based instrumentation market with a range of laser-related components, including diode lasers and optical fibers. 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

Laser applications for bio-instrumentation 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 where lasers provide 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. Our OBIS, Flare, Galaxy, Sapphire, BioRay and Genesis lasers are used in several bio-instrumentation applications.

Medical Therapy

We sell a variety of components and lasers to medical laser companies for use in end-user applications such as ophthalmology, aesthetic, surgical, therapeutic and dentistry. Our DIAMOND series CO_2 lasers are widely used in ophthalmic, aesthetic and surgical markets. We have a leading position in Lasik and photorefractive keratectomy surgery methods with our ExciStar XS excimer laser platform. We also provide ultrafast lasers for use in cataract surgery and optical fibers for surgical applications.

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. Other applications where our OBIS, Genesis and Sapphire series of lasers are used include the retinal scanning market in diagnostic imaging systems as well as new ground breaking in-vivo imaging.

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, Chameleon Discovery, COMPexPro, Astrella, Revolution, Fidelity, Legend, Libra, Monaco, Vitara, Mephisto, Mira, Genesis 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 femto- or attoseconds (10^{-15} to 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. The use of ultrafast lasers such as the Chameleon, Fidelity and Monaco in microscopy is now a common occurrence in bio-imaging labs, and they have become a crucial tool in modern neuroscience research.

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 reduce production costs. We anticipate this trend to continue, driven primarily by the increasing sophistication and miniaturization of consumer electronic goods and their convergence via the internet, resulting in increasing demand for better displays, more bandwidth and memory, and all packaged into devices which are lighter, thinner and consume less power. Although this market follows the macro-economic trends and carries inherent risks, we believe that we are well positioned to continue to capitalize on the current market trends and that we will see continued increased adoption of our solid-state, CO_2, fiber, direct diode and excimer laser systems, as all these lasers enable entirely new applications, performance improvements and reduced process costs.

Excimer laser based LTPS is a key technology for producing high resolution OLED displays in general and flexible OLED displays in particular. We believe we are well positioned to take advantage of the rapid growth that is projected for OLED displays in smart phones and other mobile devices over the next several years with our Vyper and LineBeam systems.

CO_2, Avia, Matrix, Rapid, Monaco, Helios and direct diode lasers all seem aligned with the need for related FPD touch panel, film cutting, light guide technology, repair and frit welding.

The trend for thinner and lighter devices is impacting the glass substrates used in today's mobile devices requiring thinner glass with higher degrees of mechanical strength and scratch resistance. Mechanical means of cutting these glass and sapphire pieces are no longer adequate to meet future requirements and we expect lasers to play an increased role. Our CO, CO_2, Monaco and Rapid lasers together with our proprietary SmartCleave technology are well positioned to take advantage of this trend.

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 UV laser sources (such as Azure, Paladin, Avia, Rapid, 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.

These same lasers, plus Monaco, Rapid, CO and CO_2 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 wafer 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.

Materials processing

The materials processing segment is the most diverse of all the segments we serve and a large cross section of our products are used in this segment. We sell laser sources, laser rails, beam delivery components, laser diagnostic equipment and complete laser tools. There are many drivers at play, but at a high level they involve faster processing with higher yields, processing of new materials, more environmentally friendly processes and higher precision.

The automotive industry is undergoing rapid changes that present opportunities for further use of lasers. Trends such as reduction in emissions from lighter cars and electric vehicles require new materials and new processes for welding, cutting and drilling. We believe this will lead to further adoption of lasers and tools based on high power fiber and diode lasers, as well as ultrafast and CO_2 laser.

We expect to see continued growth for high power fiber lasers in the machine tool industry used in metal cutting applications continues. In addition, we see additional opportunities in newer applications such as laser cladding, heat treatment and 3D printing.

In the consumer goods market, we serve a large variety of applications in packaging, digital printing, jewelry, textiles, security and consumer electronics. We serve these industries with almost all of our products from lasers to laser tools. As a consequence, this broad segment represents a stable and growing market for us.

We supply the medical device market with a variety of lasers and laser tools in applications such as fine cutting and welding as well as marking. This market is set to continue to grow in the foreseeable future as the population becomes older and advanced medical procedures spread outside the traditional markets in US, Europe and Japan.

OEM components and instrumentation

The bio instrumentation market is on a steady path in the most important areas: microscopy, flow cytometry and DNA sequencing, which all are enjoying solid research funding on a worldwide basis with some local variations. In this field, our OPSL technology gives us differentiated products at a number of important wavelengths. This advantage coupled with strong focus on meeting our customers' demands for more compact and cost effective sources has resulted in growth for us in this market and we expect that to continue. Our OPSL technology resulted in the first truly continuous wave solid-state UV laser which enables the use of UV in a clinical as well as a research environment.

In the medical therapeutic area, we see stable business with several opportunities for growth. We supply excimer lasers used in refractive eye surgery and are actively involved in further developments in laser vision correction including the use of ultrafast lasers in applications such as laser cataract surgery where higher precision and use of advanced implants enable better and more reliable patient outcomes. We also have opportunities in dental procedures for both hard and soft tissue ablation, with greatly improved patient comfort and outcome. In the area of photocoagulation, our Genesis OPSL yellow lasers are being used since the wavelength is particularly suitable for the treatment of blood vessels. In aesthetic laser procedures, we are an OEM supplier of CO_2 and semiconductor lasers to the major manufacturers of equipment used in the latest aesthetic procedures.

Scientific research and government programs

Worldwide scientific funding seems stable overall, with some regions growing and others just holding their current level. Bright spots include the strong push in neuroscience to better understand how the brain functions. Lasers play a very important role in imaging brain structure as well as tracking activity in animal brains using techniques such as optogenetics. We believe that our current and upcoming products are well positioned to take advantage of this exciting opportunity. In physics and chemistry applications, our recent product introductions of high performance and industrially hardened ultrafast products have been very well received. While this is a very competitive market, we expect that our new products will position us for growth.

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, CO_2 DPSS Excimer Ultrafast Semiconductor Laser Rails
	Advanced packaging and interconnects	CO, CO_2 DPSS Excimer Ultrafast Laser Rails
	Semiconductor front-end	CO_2 DPSS OPSL Excimer Ion Laser Marking Tools
Materials processing	Metal cutting, drilling, joining, cladding, surface treatment and additive manufacturing	CO_2 Fiber Semiconductor Laser Machine Tools Ultrafast Laser Rails Components
	Laser marking and coding	CO_2 DPSS Ultrafast Laser Rails Laser Marking Tools
	Non-metal cutting, drilling	CO, CO_2 DPSS Ultrafast Excimer Semiconductor Laser Machine Tools Laser Rails Components
OEM components and instrumentation	Bio-Instrumentation	DPSS OPSL Semiconductor
	Graphic arts and display	OPSL CO_2
	Medical therapy (OEM)	CO, CO_2 DPSS Ultrafast Excimer OPSL Semiconductor
Scientific research and government programs	All scientific applications	DPSS Excimer OPSL Ultrafast

* 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, fiber and large form factor optics 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.

TECHNOLOGIES

Diode-pumped solid-state 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. The unique features of a fiber laser make them suitable for producing high power, continuous wave laser beams. Our fiber laser design has several unique features including a modular design for improved serviceability and diode bar based pumping. Due to packaging efficiency, diode bars reduce the overall cost of a fiber laser. Some of the most critical components inside a fiber laser include the gain fiber itself and the diodes providing the pump power. We plan to continue to drive cost reduction in our diode laser pumps and demonstrate the scalability of the platform and as a result, expect to be well positioned as a fiber laser supplier. This platform addresses the large growing high power metal cutting and joining market.

Gas lasers (CO, CO_2, Excimer, Ion)

The breadth of our gas laser portfolio is industry leading, encompassing CO, CO_2, 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.

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 over 1000nm and output powers ranging from 1W to over 100W, with highly integrated products in the kW 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, cladding, hardening, brazing and 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^{-12} seconds). These types of lasers are used for medical, advanced microelectronics and materials processing applications as well as scientific research. 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 1-2000 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 ablation of materials with high precision and minimal thermal damage. The use of our ultrafast lasers in applications outside science has been growing rapidly over the last several years, particularly in microelectronics and materials processing applications.

SALES AND MARKETING

We primarily market our products in the United States through a direct sales force. We sell internationally through direct sales personnel located in Canada, France, Finland, Germany, Italy, Japan, the Netherlands, China, South Korea, Taiwan, Singapore, Spain and the United Kingdom, as well as through independent representatives in certain jurisdictions around the world. Our foreign sales are made principally to customers in South Korea, China, Germany, Japan and other European and Asia-Pacific countries. Foreign sales accounted for 83% of our net sales in fiscal 2017, 76% of our net sales in fiscal 2016 and 73% of our net sales in fiscal 2015. 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.

We had one customer, Advanced Process Systems Corporation, who contributed more than 10% of revenue during fiscal 2017, 2016 and 2015. We had another major customer, Japanese Steel Works, Ltd., who contributed more than 10% of revenue during fiscal 2016.

To support our sales efforts we maintain and continue to invest in a number of applications centers around the world, where our applications experts work closely with customers on developing laser processes to meet their manufacturing needs. The applications span a wide range, but are mostly centered around the materials processing and microelectronics markets. Locations include several facilities in the US, Europe and Asia.

We maintain 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 in our reserve is approximately 15 months.

RESEARCH AND DEVELOPMENT

We are constantly developing and introducing new products as well as improving and refining existing products to better serve the markets we participate in. 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 2017 were $119.2 million, or 6.9% of net sales compared to $81.8 million, or 9.5% of net sales for fiscal 2016 and $81.5 million, or 10.2% of net sales for fiscal 2015. 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

Since the acquisition of Rofin in November 2016, we have integrated Rofin into our organizational structure and both organizations are operating as one company with common objectives, goals and processes. Strategies are being implemented to improve operating leverage, to execute synergies and to enhance our customers' experience. Common policies and guidelines have been communicated, key management and operating processes have been implemented and ERP systems at some of Rofin's sites have been integrated onto our Oracle ERP and Agile planning platforms, consistent with the rest of Coherent. This integration process will continue into fiscal 2018 and beyond.

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 cost-effectively available from external sources. We believe this is essential to maintaining high quality products and enable rapid 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 and performance 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.

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 have transferred the production of additional products into both of our Singapore and Malaysia factories. With the acquisition of Rofin, we now have a manufacturing footprint in Nanjing, China. We are transferring additional products and volume to Nanjing as well as consolidating our China repair activities in that facility. We continue to expand our tube refurbishment capacity and footprint in our South Korea operations, which has allowed us to reduce service response time and inventories, providing benefits to us and to our customers. We have also established an International Procurement Office in Singapore and have been increasing our sourcing of materials from Asia to reduce material costs on a global basis. In fiscal 2015, we increased our vertical integration capabilities with the asset acquisition of the Tinsley Optics business from L-3 Communications Corporation.

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, crystals and optics, 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" in item 1A—"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."

Operations

Our products are manufactured at our sites in California, Oregon, Arizona, Michigan, Massachusetts, New Jersey, Connecticut, New Hampshire and Florida in the U.S.; Germany, Scotland, Finland, Sweden and Switzerland in Europe; and South Korea, China, Singapore and Malaysia in Asia. 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, OPS lasers, fiber lasers 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 Salem, New Hampshire facility. Our low power CO_2 and CO gas lasers are manufactured in Bloomfield, Connecticut. We manufacture our LMT products in Penang, Malaysia. We manufacture a portion of our DPSS lasers used in microelectronics and OEM components and instrumentation applications in Lübeck, Germany. We manufacture a portion of our DPSS lasers used in microelectronics, OEM components and instrumentation and materials processing applications in Kaiserslautern, Germany. Our excimer gas laser products are manufactured in Göttingen, Germany. We refurbish excimer tubes at our manufacturing site in Osan, South Korea.

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 facility in Richmond, California manufactures large form factor optics for our Linebeam excimer laser annealing systems. We manufacture and test high-power CO_2, solid-state and fiber laser macro products in Hamburg, Germany; Plymouth, Michigan; Landing, New Jersey; East Granby, Connecticut, and Nanjing, China. Our laser marking products are manufactured and tested in Gunding-Munich and Gilching-Munich, Germany; Devens, Massachusetts; and Singapore. Our micro application products are manufactured and tested in Gilching-Munich, Germany; Tampere, Finland; Plymouth, Michigan; Belp, Switzerland; and Orlando, Florida. Our diode laser products are manufactured and tested in Mainz and Freiburg, Germany; Tucson, Arizona; and Nanjing, China. Coating of our Slab laser electrodes is performed in Overath, Germany. Our fiber optics and beam delivery systems are manufactured and tested in Molndal, Sweden, and power supplies are manufactured and tested in Starnberg-Munich, Germany. The Company's active and passive fibers and amplifiers are manufactured and tested in East Granby, Connecticut. Optical engines for fiber lasers, fiber lasers modules and wafer material are designed and manufactured in Tampere, Finland.

We have transferred several products and subassemblies for manufacture and repairs to our Singapore, Malaysia and Nanjing, China facilities and are continuing to transfer additional product manufacturing to these facilities as part of our worldwide manufacturing cost reduction strategy.

Coherent is committed to meeting internationally recognized manufacturing standards. All of our legacy Coherent facilities are ISO 9001 certified and several facilities are ISO 13485, ISO 14001, ISO 17025 and/or ISO 50001 certified depending on the products designed and manufactured at that facility. Substantially all of our legacy Rofin facilities are either ISO 9001 certified or are in the process of being certified.

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 September 30, 2017, we held approximately 700 U.S. and foreign patents, which expire in calendar years 2017 through 2035 (depending on the payment of maintenance fees) and we have approximately 275 additional pending patent applications that have been filed. The issued patents cover various products in all of the major markets that we serve.

Some of our products are designed to include intellectual property licensed from third parties. It may be necessary in the future to seek or renew licenses relating to aspects of our products, processes and services. While we have generally been able to obtain such licenses on commercially reasonable terms in the past, there is no guarantee that such licenses could be obtained on reasonable terms in the future or at all.

For a discussion of the importance to our business of, and the risks attendant to intellectual property rights, see "Risk Factors" in Item 1A—"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.”

COMPETITION

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 Novanta Inc., IPG Photonics Corporation, Lumentum Holdings Inc., MKS Instruments, Inc., and TRUMPF GmbH, as well as other smaller companies. In addition, from time to time our customers may also decide to vertically integrate and build their own photonics products. 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 2017 year-end, our backlog of orders scheduled for shipment (within one year) was $1,040.0 million compared to $605.3 million at fiscal 2016 year-end. By segment, backlog for OLS was $801.4 million and $558.6 million, respectively, at fiscal 2017 and 2016 year-ends. Backlog for ILS was $238.6 million and $46.7 million, respectively, at fiscal 2017 and 2016 year-ends. The increase in OLS backlog from fiscal 2016 to fiscal 2017 year-end is primarily due to the timing of large excimer laser annealing system orders, net of shipments, for the flat panel display market. The increase in ILS backlog from fiscal 2016 to fiscal 2017 year-end is primarily due to the acquisition of Rofin in the first quarter of fiscal 2017 and is primarily concentrated on orders in the materials processing and high power fiber laser markets. Orders used to compute backlog are generally cancelable and, depending on the notice period, are subject to rescheduling by our customers with penalties. Historically, we have not experienced a significant rate of cancellation or rescheduling, though we cannot guarantee that the rate of cancellations or rescheduling will not increase in the future.

SEASONALITY

We have historically experienced decreased 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 our facilities and those of many of our customers due to year-end holidays. For example over the past 10 years, excluding certain recovery years, our first fiscal quarter revenues have ranged 2%-12% below the fourth quarter of the prior fiscal years. With the acquisition of Rofin in fiscal 2017, we expect a more pronounced decrease in revenues in the first quarter of the fiscal year as Rofin has historically experienced more pronounced seasonality, particularly in materials processing applications, than Coherent historically has experienced. This historical pattern should not be considered a reliable indicator of the Company’s future net sales or financial performance.

EMPLOYEES

As of fiscal 2017 year-end, we had 5,218 employees. Approximately 666 of our employees are involved in research and development; 3,382 of our employees are involved in operations, manufacturing, service and quality assurance; and 1,170 of our employees are involved in sales, order administration, marketing, finance, information technology, general management 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

On November 7, 2016, we acquired Rofin, one of the world's leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components, for approximately $936.3 million. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment. See "Recent Developments" for further discussion of the acquisition and the Credit Agreement.

In July 2015, we acquired certain assets of Raydiance, Inc. ("Raydiance") for approximately $5.0 million, excluding transaction costs. Raydiance manufactured complete tools and lasers for ultrafast processing systems and subsystems in the precision micromachining processing market. The Raydiance assets have been included in our OEM Laser Sources segment.

In July 2015, we acquired the assets and certain liabilities of the Tinsley Optics ("Tinsley") business from L-3 Communications Corporation for approximately $4.3 million, excluding transaction costs. Tinsley is a specialized manufacturer of high precision optical components and subsystems sold primarily in the aerospace and defense industry. Tinsley manufactures the large form factor optics for our excimer laser annealing systems. The Tinsley assets have been included in our OEM Laser Sources segment.

Please refer to "Note 3. Business Combinations" of Notes to Consolidated Financial Statements under Item 15 of this annual report for further discussion of recent acquisitions completed.

RESTRUCTURINGS AND CONSOLIDATION

In the first quarter of fiscal 2017, we began the implementation of planned restructuring activities in connection with the acquisition of Rofin. These activities to date primarily have related to exiting our legacy high power fiber laser product line, change of control payments to Rofin officers, the exiting of two product lines acquired in the acquisition of Rofin, realignment of our supply chain due to segment reorganization and consolidation of sales and distribution offices. These activities resulted in charges primarily for employee termination, other exit related costs associated with the write-off of property and equipment and inventory and early lease termination costs.

The current year severance related costs are primarily comprised of severance pay for employees being terminated due to the transition of activities out of Rofin including change of control payments to Rofin officers and the exit from certain product lines as well as the consolidation of sales and distribution offices. The current year asset write-offs are primarily comprised of write-offs of inventory and equipment due to exiting our legacy high power fiber laser product line and inventory write-offs due to the exit of other Rofin product lines. We plan to continue additional restructuring activities in fiscal 2018 related to our acquisition of Rofin.

GOVERNMENT REGULATION

Environmental regulation

Our operations are subject to various federal, state, local and foreign environmental regulations relating to the use, storage, handling and disposal of regulated 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. Such rules are subject to change by the governing agency and we monitor those changes closely. We expect all operations to meet the legal and regulatory environmental requirements and believe that compliance with those 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 face increasing complexity in our product design and procurement operations due to the evolving nature of environmental compliance regulations and standards, as well as specific customer compliance requirements. These regulations and standards have an impact on the material composition of our products entering specific markets. Such legislation has gone into effect at various time across the worldwide markets. For example, in the European Union ("EU"), the Restriction of Hazardous Substances Directive (RoHS) went into effect in 2006, and was subsequently revised in 2011 and again in 2015 (as RoHS 2). Another material revision will be in effect in 2019. The Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) went into effect in 2007, and is amended with additional substances every 6 months. China enacted the Management Methods for Controlling Pollution Caused by Electronic Information Products Regulation (China-RoHS) in 2007, which was revised and renamed in 2016 as the Administrative Measures for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products (known as China RoHS 2). Another example is the US Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (Conflict Minerals Act) which requires manufacturers to provide disclosures about the use of specified conflict minerals emanating from the DRC and nine adjoining countries (Covered Countries). In addition to these regulations and directives, we may face costs and liabilities in connection with product take-back legislation. For example, beginning in 2006 (with several subsequent revisions), the EU Waste Electrical and Electronic Equipment Directive 2012/19/EU made producers of electrical goods financially responsible for specified collection, recycling, treatment and disposal of past and future covered products. Similar laws are now pending in various jurisdictions around the world, including the United States.

Environmental liabilities

Our operations are subject to various laws and regulations governing the environment, including the discharge of pollutants and the management and disposal of hazardous substances. As a result of our historic as well as on-going operations, we could incur substantial costs, including remediation costs. The costs under environmental laws and the timing of these costs are difficult to predict. Our accruals for such costs and liabilities may not be adequate because the estimates on which the accruals are based depend on a number of factors including the nature of the matter, the complexity of the site, site geology, the nature and extent of contamination, the type of remedy, the outcome of discussions with regulatory agencies and other Potentially Responsible Parties (PRPs) at multi-party sites and the number and financial viability of other PRPs.

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

Regulatory Compliance

Certain of our lasers sold in the United States are classified as Class IV Laser Products under the applicable rules and regulations of the Center for Devices and Radiological Health ("CDRH") of the U.S. Food and Drug Administration ("FDA"). A similar classification system is applied in the European markets.

CDRH regulations require a self-certification procedure pursuant to which a manufacturer must submit a filing to the CDRH with respect to each product incorporating a laser device, make periodic reports of sales and purchases and comply with product labeling standards, product safety and design features and informational requirements. The CDRH is empowered to seek fines and other remedies for violations of their requirements. We believe that our products are in material compliance with applicable laws and regulations relating to the manufacture of laser devices.

SEGMENT INFORMATION

As a result of the acquisition of Rofin in the first quarter of fiscal 2017, we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company based upon the organizational structure of the combined company and how the chief operating decision maker ("CODM") receives and utilizes information provided to allocate resources and make decisions: OEM Laser Sources ("OLS") and Industrial Lasers & Systems ("ILS"). Accordingly, our segment information was restated retroactively for all periods presented. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment.

We have identified OLS and ILS 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.

FINANCIAL INFORMATION ABOUT FOREIGN AND DOMESTIC OPERATIONS AND EXPORT SALES

Financial information relating to foreign and domestic operations for fiscal years 2017, 2016 and 2015, is set forth in Note 15, "Segment and Geographic Information" of our Notes to Consolidated Financial Statements under Item 15 of this annual report.

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 us. 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. 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 condition.

RISKS RELATED TO THE MERGER WITH ROFIN

We may not be able to integrate the business of Rofin successfully with our own, realize the anticipated benefits of the merger or manage our expanded operations, any of which would adversely affect our results of operations.

We have devoted, and expect to continue to devote, significant management attention and resources to integrating our business practices with those of Rofin. Such integration efforts are costly due to the large number of processes, policies, procedures, locations, operations, technologies and systems to be integrated, including purchasing, accounting and finance, sales, service, operations, payroll, pricing, marketing and employee benefits. Integration expenses could, particularly in the short term, exceed the savings we expect to achieve from the elimination of duplicative expenses and the realization of economies of scale, which could result in significant charges to earnings that we cannot currently quantify. Potential difficulties that we may encounter as part of the integration process include the following:

- the inability to successfully combine our business with Rofin in a manner that permits the combined company to achieve the full synergies and other benefits anticipated to result from the merger;
- complexities associated with managing the combined businesses, including difficulty addressing possible differences in corporate cultures and management philosophies and the challenge of integrating products, services, complex and different information technology systems (including different Enterprise Management Systems), control and compliance processes, technology, networks and other assets of each of the companies in a cohesive manner;
- diversion of the attention of our management; and
- the disruption of, or the loss of momentum in, our business or inconsistencies in standards, controls, procedures or policies, any of which could adversely affect our ability to maintain relationships with customers, suppliers, employees and other constituencies or our ability to achieve the anticipated benefits of the merger, or could reduce our earnings or otherwise adversely affect our business and financial results.

Following the merger, the size and complexity of the business of the combined company has increased significantly. Our future success depends, in part, upon our ability to manage this expanded business, which will pose substantial challenges for management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. There can be no assurances that we will be successful or that we will realize the expected synergies and benefits anticipated from the merger.

Charges to earnings resulting from the application of the purchase method of accounting to the Rofin acquisition may adversely affect our results of operations.

In accordance with generally accepted accounting principles, we have accounted for the Rofin acquisition using the purchase method of accounting, which will result in charges to earnings that could have a material adverse effect on the market value of our common stock following completion of the acquisition. Under the purchase method of accounting, we allocated the total purchase price of Rofin's net tangible and identifiable intangible assets based upon their estimated fair values at the acquisition date. The excess of the purchase price over net tangible and identifiable intangible assets was recorded as goodwill. We are and will continue to incur additional depreciation and amortization expense over the useful lives of certain of the net tangible and intangible assets acquired in connection with the acquisition. In addition, to the extent the value of goodwill or intangible assets with indefinite lives becomes impaired, we may be required to incur material charges relating to the impairment of those assets. These depreciation, amortization and potential impairment charges could have a material impact on our results of operations.

Our indebtedness following the merger is substantially greater than our indebtedness prior to the merger. This increased level of indebtedness could adversely affect us, including by decreasing our business flexibility, and will increase our borrowing costs.

In November 2016 we entered into the Credit Agreement which provided for a 670 million Euro term loan, all of which was drawn, and a $100 million revolving credit facility, under which a 10 million Euro letter of credit was issued. As of September 30, 2017, 513.3 million Euros were outstanding under the term loan and 10.0 million Euros were outstanding under the revolving credit facility. We may incur additional indebtedness in the future by accessing the revolving credit facility and/or entering into new financing arrangements. Our ability to pay interest and repay the principal of our current indebtedness is dependent upon our ability to manage our business operations and the ongoing interest rate environment. There can be no assurance that we will be able to manage any of these risks successfully.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material respect, change in control of us and Coherent Holding BV & Co. K.G. (formerly Coherent Holding GmbH), judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all obligations and exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. There can be no assurance that we will have sufficient financial resources or we will be able to arrange financing to repay our borrowings at such time.

Our substantially increased indebtedness and higher debt-to-equity ratio following completion of the merger in comparison to that prior to the merger will have the effect, among other things, of reducing our flexibility to respond to changing business and economic conditions and will increase our borrowing costs. In addition, the amount of cash required to service our increased indebtedness levels and thus the demands on our cash resources will be greater than the amount of cash flows required to service our indebtedness or that of Rofin individually prior to the merger. The increased levels of indebtedness could also reduce funds available for our investments in product development as well as capital expenditures, dividends, share repurchases and other activities and may create competitive disadvantages for us relative to other companies with lower debt levels.

BUSINESS ENVIRONMENT AND INDUSTRY TRENDS

Our operating results, including net sales, net income (loss) and adjusted EBITDA 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;
- 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 receipt and conversion of bookings to net sales;
- the concentration of a significant amount of our backlog, and resultant net sales, with a few customers in the Microelectronics market;
- rescheduling of shipments or cancellation of orders by our customers;
- fluctuations in our product mix;
- the ability of our customers' other suppliers to provide sufficient material to support our customers' products;
- currency fluctuations and stability, in particular the Euro, the Japanese Yen, the South Korean Won, the Chinese RMB and the US dollar as compared to other currencies;
- 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 manufacturing capacity across our diverse product lines and that of our suppliers, including our ability to successfully expand our manufacturing capacity in various locations around the world;
- our ability to successfully internally transfer products as part of our integration efforts;
- our reliance on contract manufacturing;
- our reliance in part upon the ability of our OEM customers to develop and sell systems that incorporate our laser products;

- our customers' ability to manage their susceptibility to adverse economic conditions;
- the rate of market acceptance of our new products;
- the ability of our customers to pay for our products;
- expenses associated with acquisition-related activities;
- seasonal sales trends, including with respect to Rofin's historical business, which has traditionally experienced a reduction in sales during the first half of its fiscal year as compared to the second half of its fiscal year;
- jurisdictional capital and currency controls negatively impacting our ability to move funds from or to an applicable jurisdiction;
- access to applicable credit markets by us, our customers and their end customers;
- 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-lived assets;
- our ability to meet our expectations and forecasts and those of public market analysts and investors;
- 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 and scientific research projects where we are a subcontractor;
- 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;
- impact of government economic policies on macroeconomic conditions;
- costs and expenses from litigation;
- costs associated with designing around or payment of licensing fees associated with issued patents in our fields of business;

- government support of alternative energy industries, such as solar;
- negative impacts related to the "Brexit" vote by the United Kingdom, particularly with regard to sales from our Glasgow, Scotland facility to other jurisdictions and purchases of supplies from outside the United Kingdom by such facility;
- negative impacts related to the recent independence movement in Catalonia, Spain, particularly with regard to holding and operating some of our foreign entities in an efficient manner from a tax, business and legal perspective;
- negative impacts related to government instability, including the recent difficulties in forming a governing coalition in Germany;
- the future impact of legislation, rulemaking, and changes in accounting, tax, defense procurement, or export policies; and
- distraction of management related to acquisition, integration 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 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, such as varying product mix, 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, U.S. and global equity markets have experienced significant price and volume fluctuations that have affected the stock prices of many technology companies both in and outside our industry. There has not always been a direct correlation between this volatility and the performance of particular companies subject to these stock price fluctuations. 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 depend on sole source or limited source suppliers, both internal and external, for some of the key components and materials, including exotic materials, certain cutting-edge optics and crystals, used in our products, which make us susceptible to supply shortages or price fluctuations that could adversely affect our business, particularly our ability to meet our customers' delivery requirements.

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. In particular, from time-to-time our customers require us to ramp up production and/or accelerate delivery schedules of our products. Our key suppliers may not have the ability to increase their production in line with our customers' demands. This can become acute during times of high growth in our customers' businesses. Our failure to timely receive these key components and materials would likely cause delays in the shipment of our products, which would likely negatively impact both our customers and our business. 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 flooding in

Thailand and the earthquake, tsunami and resulting nuclear disaster in Japan and severe flooding and power loss in the Eastern part of the United States in recent years. 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. For certain long-lead time supplies or in order to lock-in pricing, we may be obligated to place non-cancelable purchase orders or otherwise assume liability for a large amount of the ordered supplies, which limits our ability to adjust down our inventory liability in the event of market downturns or other customer cancellations or rescheduling of their purchase orders for our products.

Some of our products, particularly in the flat panel display industry, require designs and specifications that are at the cutting-edge of available technologies and change frequently to meet rapidly evolving market demands. By their very nature, the types of components used in such products can be difficult and unpredictable to manufacture and may only be available from a single supplier, which increases the risk that we may not obtain such components in a timely manner. Identifying alternative sources of supply for certain components could be difficult and costly, result in management distraction in assisting our current and future suppliers to meet our and our customers' technical requirements, and cause delays in shipments of our products while we identify, evaluate and test the products of alternative suppliers. Any such delay in shipment would result in a delay or cancelation of our ability to convert such order into revenues. 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 our customers' supply chain, 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, fiber, lasers and laser-based systems. In July 2015, we also began manufacturing certain large format optics. 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. Since many of our products have lengthy qualification periods, our ability to introduce multiple suppliers for parts may be limited. 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.

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 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, 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. Additionally, our product offerings may become obsolete given the frequent introduction of alternative technologies. 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.

We participate in the flat panel display market, which has a relatively limited number of end customer manufacturers. Our backlog, timing of net sales and results of operations could be negatively impacted in the event our customers reschedule or cancel orders.

In the flat panel display market, there are a relatively limited number of manufacturers who are the end customers for our annealing products. In fiscal 2017, Advanced Process Systems Corporation, an integrator in the flat panel display market based in South Korea, contributed more than 10% of our revenue. Given macroeconomic conditions, varying consumer demand and technical process limitations at manufacturers, our customers may seek to reschedule or cancel orders. These larger flat panel-related systems have large average selling prices. Any rescheduling or canceling of such orders by our customers will likely have a significant impact on our quarterly or annual net sales and results of operations and could negatively impact inventory values and backlog. Additionally, challenges in meeting evolving technological requirements for these complex products by us and our suppliers could also result in delays in shipments and rescheduled or canceled orders by our customers. This could negatively impact our backlog, timing of net sales and results of operations.

As of September 30, 2017, flat panel display systems represented 59% of our backlog, compared to 63% at October 1, 2016. Since our backlog includes higher average selling price flat panel display systems, any delays or cancellation of shipments could have a material adverse effect on our financial results.

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 net sales.

Lasers and 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, in particular our excimer laser annealing tools (ELA) used in the flat panel display market, 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, including 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 or orders;
- 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, engineering and manufacturing 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.

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

A portion of our net sales in the microelectronics market depends on the demand for our products by advanced packaging applications and semiconductor equipment companies. These markets have 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 these markets severely limits our ability to predict our business prospects or financial results in these markets.

During industry downturns, our net sales from these markets 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 these markets, 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 these markets 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.

Worldwide economic conditions and related uncertainties could negatively impact demand for our products and results of operations.

Volatility and disruption in the capital and credit markets, depressed consumer confidence, government economic policies, 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 future sales decline or remain flat. Spending and the timing thereof by consumers and businesses have a significant impact on our results and, where such spending is delayed or canceled, it could have a material negative impact on our operating results. Current global economic conditions remain uncertain and challenging. Weakness in our end markets could negatively impact our net sales, gross margin and operating expenses, and consequently have a material adverse effect on our business, financial condition and results of operations.

Uncertainty in global fiscal policy has likely had an adverse impact on global financial markets and overall economic activity in recent years. Should this uncertain financial policy recur, it would likely negatively impact global economic activity. Any weakness in global economies would also likely have negative repercussions on U.S. and global credit and financial markets, and further exacerbate sovereign debt concerns in the European Union. All of these factors would likely adversely impact the global demand for our products and the performance of our investments, and would likely have a material adverse effect on our business, results of operations and financial condition.

The financial turmoil that has affected the banking system and financial markets in recent years could result in tighter credit markets and lower levels of liquidity in some financial markets. There could be a number of follow-on effects from a 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, civil unrest and mass migration may put further pressure on economic conditions in the United States and the rest of the world. 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."

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 impact 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 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. In addition, the willingness of financial institutions to continue to accept our cash deposits will impact our ability to diversify our investment risk among institutions.

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 significant portion 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 government-issued securities such as U.S. Treasury securities and government agencies, corporate notes, commercial paper and money market funds. 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."

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 and to manage our manufacturing capacity to meet customer demands. We cannot assure you that we will be able to successfully identify, on a timely basis, new high-growth markets in the future. 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 in certain markets 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 2017, fiscal 2016 and fiscal 2015, 83%, 76% and 73%, 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 net sales 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 in Japan and the flooding in Thailand in recent years. 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 representatives. 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;
- political and economic instability;
- import/export regulations, tariffs and trade barriers;
- compliance with applicable United States and foreign anti-corruption laws;
- less than favorable contract terms;
- reduced ability to enforce contractual obligations;
- cultural and management differences;
- reliance in some jurisdictions on third party sales channel partners;
- preference for locally produced products; and
- shipping and other logistics complications.

Our business could also be impacted by international conflicts, terrorist and military activity including, in particular, any such conflicts on the Korean peninsula, civil unrest and pandemic illness which could cause a slowdown in customer orders, cause customer order cancellations or negatively impact availability of supplies or limit our ability to timely service our installed base of products.

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.

If we are unable able to protect our proprietary technology, our competitive advantage could be harmed.

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. Our patent applications may not be approved, any patents that may be issued may not sufficiently protect our intellectual property and any issued patents may 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 and around the world involving patents and other intellectual property rights. This has been seen in our industry, for example in the concluded patent-related litigation between IMRA America, Inc. ("Imra") and IPG Photonics Corporation and in Imra's litigation against two of our German subsidiaries. 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.

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 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 in determining whether 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. 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 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, which 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 and our ability to effectively transition to their successors. Our inability to retain or to effectively transition to their successors 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 net sales.

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 customers' 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 net sales 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 Novanta Inc., IPG Photonics Corporation, Lumentum Holdings Inc., MKS Instruments, Inc. and TRUMPF GmbH, as well as other smaller 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. Such vertical integration could reduce the market opportunity for 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.

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 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 reliance on contract manufacturing and 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. 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.

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, including Rofin in November 2016, 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;
- 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.

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 net sales 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 2017, 2016 and 2015, our research and development costs were $119.2 million (6.9% of net sales), $81.8 million (9.5% of net sales) and $81.5 million (10.2% 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 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 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, South 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 costs or expenses. The SEC has promulgated rules requiring disclosure regarding the use of certain "conflict minerals" mined from the Democratic Republic of Congo and adjoining countries and procedures regarding a manufacturer's efforts to prevent the sourcing of such minerals. The implementation of such rules has required us to incur additional expense and internal resources and may continue to do so in the future, particularly in the event that only a limited pool of suppliers are available to certify that products are free from "conflict minerals." 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 and our customers' 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 customers, 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. 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 net sales 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 SEC. 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.

Our information systems are subject to attacks, interruptions and failures.

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 gains unauthorized access to our data, including any regarding our customers, such a security breach could expose us to a risk of loss of this information, loss of business, litigation and possible liability. Our 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 unauthorized access 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. Additionally, such actions could result in significant costs associated with loss of our intellectual property, impairment of our ability to conduct our operations, rebuilding our network and systems, prosecuting and defending litigation, responding to regulatory inquiries or actions, paying damages or taking other remedial steps.

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 our worldwide tax liabilities. A number of factors may affect our future effective tax rates including, but not limited to:

- changes in our current and future global structure based on the Rofin acquisition and restructuring that involved significant movement of U.S. and foreign entities, and our ability to maintain favorable tax treatment as a result of various Rofin restructuring efforts and business activities;
- change in the assessment of the ability to recognize our deferred tax assets and change in the valuation of our deferred tax liabilities;

- the outcome of discussions with various tax authorities regarding intercompany transfer pricing arrangements;
- changes that involve other acquisitions, restructuring or an increased investment in technology outside of the United States to better align asset ownership and business functions with revenues and profits;
- changes in the composition of earnings in countries or states with differing tax rates;
- the resolution of issues arising from tax audits with various tax authorities, and in particular, the outcome of the German tax audits of our tax returns for fiscal years 2010 - 2015;
- adjustments to estimated taxes upon finalization of various tax returns;
- increases in expenses not deductible for tax purposes, including impairments of goodwill in connection with acquisitions;
- our ability to meet the eligibility requirements for tax holidays of limited time tax-advantage status;
- changes in available tax credits;
- changes in share-based compensation;
- changes in the tax laws or the interpretation of such tax laws, including the Base Erosion Profit Shifting ("BEPS") action plan implemented by the Organization for Economic Co-operation and Development ("OECD");
- changes in generally accepted accounting principles; and
- the repatriation of non-U.S. earnings for which we have not previously provided for U.S. taxes.

As indicated above, we are engaged in discussions with various tax authorities regarding the appropriate level of profitability for Coherent entities and this may result in changes to our worldwide tax liabilities. In addition, we are subject to regular examination of our income tax returns by the Internal Revenue Service ("IRS") and other tax authorities. 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 from the treatment reflected in our historical income tax provisions and accruals, which could materially and adversely affect our operating results and financial condition.

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 various announcements from the United States government potentially impacting our ability to defer taxes on international earnings. For example, the "Tax Cuts and Jobs Act" proposed by U.S. federal tax legislation would have a significant impact on the taxation of Coherent including the U.S. tax treatment of our foreign operations. We are reviewing the potential changes to the tax laws and will revise our tax estimates to the extent the legislation is enacted.

Changing laws, regulations and standards relating to corporate governance and public disclosure may create uncertainty 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 net sales.

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 net sales. From time to time our duty calculations and payments are audited by government agencies. For example, we were audited in South Korea for customs duties and value-added-tax for the period March 2009 to March 2014. We were liable for additional payments, duties, taxes and penalties of $1.6 million, which we paid in the second quarter of fiscal 2016. Any future assessments could have a material adverse effect on our business or financial position, results of operations, or cash flows.

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.

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 our 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 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 acquirers or result in a lower stock price.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Not Applicable.

ITEM 2. PROPERTIES

Our corporate headquarters is located in Santa Clara, California. At fiscal 2017 year-end, our manufacturing locations were as follows (all acreage and 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 feet	Corporate headquarters, manufacturing, R&D	Owned
Santa Clara, CA	90,120 square feet	Office	Leased through July 2020
Sunnyvale, CA(1)	24,159 square feet	Office, manufacturing, R&D	Leased through December 2023
Richmond, CA(2)	37,952 square feet	Office, manufacturing, R&D	Leased through November 2022
Richmond, CA(2)	30,683 square feet	Office, manufacturing, R&D	Leased through February 2019
Richmond, CA(2)	11,500 square feet	Warehouse	Leased through November 2018
Orlando, FL(2)	3.1 acres of land, 30,722 square feet	Office, manufacturing, R&D	Owned
Bloomfield, CT(1)	72,996 square feet	Office, manufacturing, R&D	Leased through December 2022
East Hanover, NJ(2)	29,932 square feet	Office, manufacturing, R&D	Leased through January 2025
Landing, NJ(1)	8.0 acres of land, 34,539 square feet	Office, manufacturing, R&D	Owned
Wilsonville, OR(2)	41,250 square feet	Office, manufacturing, R&D	Leased through December 2018
Salem, NH(1)	44,153 square feet	Office, manufacturing, R&D	Leased through October 2024
Devens, MA(1)	16,792 square feet	Office, manufacturing, R&D	Leased through February 2019

	Description	Use	Term*
East Granby, CT(1)	68,135 square feet	Office, manufacturing, R&D	Leased through January 2027
Plymouth, MI(1)	52,128 square feet	Office, manufacturing, R&D	Leased through May 2022
Göttingen, Germany(2)	14.2 acres of land, several buildings totaling 224,753 square feet	Office, manufacturing, R&D	Owned
Hamburg, Germany(1)	4.6 acres of land, 119,724 square feet	Office, manufacturing, R&D	Owned
Mainz, Germany(1)	1.2 acres of land, 46,984 square feet	Office, manufacturing, R&D	Owned
Mainz, Germany(1)	47,619 square feet	Office, manufacturing, R&D	Leased through September 2022
Overath, Germany(1)	2.5 acres of land, 22,948 square feet	Office, manufacturing, R&D	Owned
Gilching, Germany(1)	4.2 acres of land, 125,012 square feet	Office, manufacturing, R&D	Owned
Freiburg, Germany(1)	12,686 square feet	Office, manufacturing, R&D	Leased through September 2019
Gunding, Germany(1)	81,913 square feet	Office, manufacturing, R&D	Leased through May 2019
Starnberg, Germany(1)	19,375 square feet	Office, manufacturing, R&D	Leased through May 2021
Lübeck, Germany(2)	46,228 square feet	Office, manufacturing, R&D	Leased through December 2018
Lübeck, Germany(2)	22,583 square feet	Manufacturing, R&D	Leased through October 2018 with option to purchase building
Lübeck, Germany(2)	8,095 square feet	Office, manufacturing, R&D	Leased through April 2019
Lübeck, Germany(2)	7,578 square feet	Warehouse	Leased through April 2019
Kaiserslautern, Germany(2)	33,740 square feet	Office, manufacturing, R&D	Leased through September 2018
Tampere, Finland(1)	4.9 acres of land, 50,074 square feet	Office, manufacturing, R&D	Owned
Pamplona, Spain(1)	0.3 acres of land, 24,654 square feet	Office, manufacturing	Owned
Gothenburg, Sweden(1)	49,514 square feet	Office, manufacturing, R&D	Leased through August 2020
Belp, Switzerland(1)	12,981 square feet	Office, manufacturing, R&D	Leased through February 2021
Glasgow, Scotland(2)	2.0 acres of land, 31,600 square feet	Office, manufacturing, R&D	Owned
Nanjing, China(1)	3.0 acres of land, 86,397 square feet	Office, manufacturing, R&D	Owned
Ansung, South Korea(1)	60,257 square feet	Office, manufacturing	Leased through September 2027
YongIn-Si, South Korea(2)	33,074 square feet	Office, manufacturing	Leased through November 2021
Kallang Sector, Singapore	42,723 square feet	Office, manufacturing	Leased through January 2022
Penang, Malaysia	12,519 square feet	Office, manufacturing	Leased through August 2020

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

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

* We currently plan to renew leases on buildings as they expire, as necessary.

We maintain other sales and service offices under varying leases expiring from 2018 through 2022 in Japan, China, Taiwan, South Korea, France, Italy, Germany, Belgium, Spain, the United Kingdom and the Netherlands.

We consider our facilities to be both suitable and adequate to provide for current and near term requirements and that the productive capacity in our facilities is substantially being utilized or we have plans to utilize it.

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. On May 14, 2013, IMRA America ("Imra") filed a complaint for patent infringement against two of our subsidiaries in the Regional Court of Düsseldorf, Germany, captioned In re IMRA America Inc. versus Coherent Kaiserslautern GmbH et. al. 4b O 38/13. The complaint alleges that the use of certain of the Company's lasers infringes upon EP Patent No. 754,103, entitled "Method For Controlling Configuration of Laser Induced Breakdown and Ablation," issued November 5, 1997. The patent, now expired in all jurisdictions, is owned by the University of Michigan and licensed to Imra. The complaint seeks unspecified compensatory damages, the cost of court proceedings and seeks to permanently enjoin the Company from infringing the patent in the future. Following the filing of the infringement suit, our subsidiaries filed a separate nullity action with the Federal Patent Court in Munich, Germany requesting that the court hold that the Patent was invalid based on prior art. On October 1, 2015, the Federal Patent Court ruled that the German portion of the Patent was invalid. Imra has appealed this decision to the Federal Court of Justice, the highest civil jurisdiction court in Germany. The infringement action is currently stayed pending the outcome of such appeal. Management has made an accrual with respect to this matter and has determined, based on its current knowledge, that the amount or range of reasonably possible losses in excess of the amounts already accrued is not reasonably estimable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position, results of operations or cash flows, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

The United States and many foreign governments impose tariffs and duties on the import and export of certain products we sell. From time to time our duty calculations and payments are audited by government agencies. During the second quarter of fiscal 2016, we concluded an audit in South Korea for customs duties and value added tax for the period March 2009 to March 2014. We paid $1.6 million related to this matter in the second quarter of fiscal 2016 and have no remaining accrual at October 1, 2016.

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 fiscal 2011 are closed. In September 2017, the Internal Revenue Service (IRS) completed its audit of Coherent Inc.'s fiscal 2013 tax return with no adjustment. The extension of the statutes of limitations for its fiscal 2011 and 2012 tax returns will be closed on June 30, 2018. In our major foreign jurisdictions and our major state jurisdictions, the years prior to fiscal 2011 and 2013, respectively, are closed to examination. Earlier years in our various jurisdictions may remain open for adjustment to the extent that we have tax attribute carryforwards from those years.

In July 2015 and March 2016, Coherent Kaiserslautern GmbH (formerly Lumera Laser GmbH) received tax audit notices for the fiscal years 2010 to 2014. The audit began in August 2015. We acquired the shares of Lumera Laser GmbH in December 2012 and, pursuant to the terms of the acquisition agreement, we should not have responsibility for any assessments related to the pre-acquisition period. In July 2016, Coherent Holding GmbH and Coherent Deutschland GmbH each received a tax audit notice for the fiscal years 2011 to 2014. The audit began in August 2016. In November 2016, Coherent GmbH, Coherent LaserSystems GmbH & Co. KG and Coherent Germany GmbH received audit notices for the period that they were in existence during the fiscal years 2011 through 2014. The audit work began in January 2017. In the fourth quarter of fiscal 2017, all German tax audits were extended to fiscal 2015 and are currently in progress.

We regularly engage in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions and management believes that it has adequately provided reserves for any adjustments that may result from tax examinations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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			
	2017		2016	
	High	Low	High	Low
First quarter	$138.33	$101.43	$ 68.33	$52.46
Second quarter	$206.01	$136.42	$ 92.58	$57.96
Third quarter	$261.85	$192.79	$ 98.26	$84.11
Fourth quarter	$276.36	$210.25	$111.63	$89.43

The number of stockholders of record as of November 24, 2017 was 667. While we paid a cash dividend in fiscal 2013 and may elect to pay dividends in the future, we have no present intention to declare cash dividends. Our line of credit agreement, signed on November 7, 2016, includes certain restrictions on our ability to pay cash dividends.

There were no sales of unregistered securities in fiscal 2017.

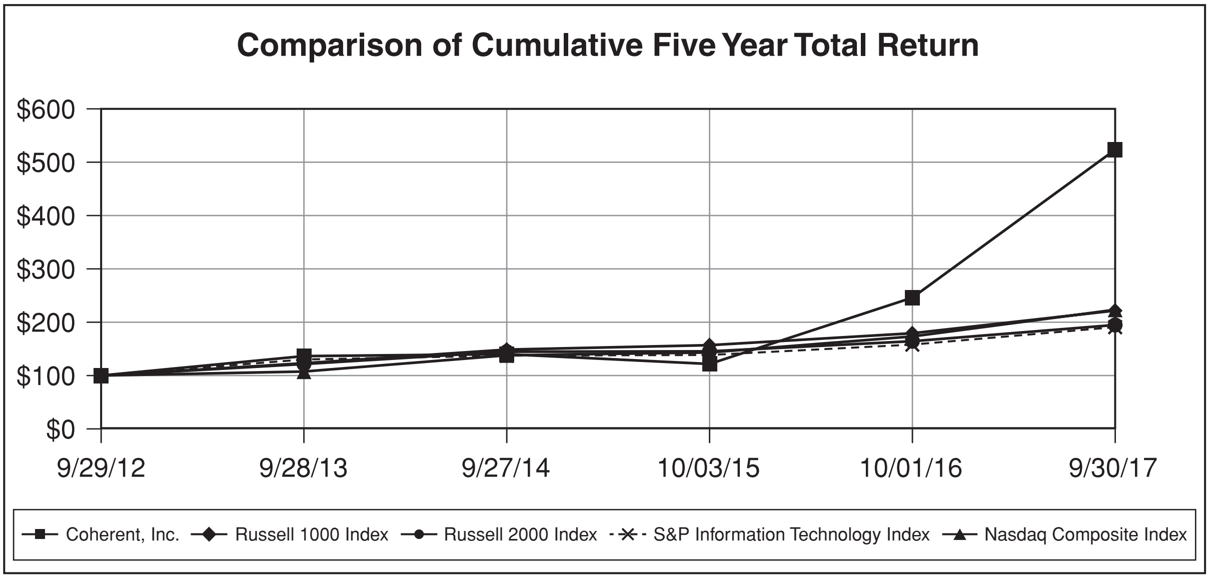
There were no stock repurchases during the fourth quarter of fiscal 2017.

Refer to Note 11 "Stock Repurchases" of our Notes to Consolidated Financial Statements under Item 15 of this annual report for discussion on repurchases during fiscal 2015 and 2014.

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 29, 2012 through September 30, 2017 comparing the return on our common stock with the Russell 1000 Index, Russell 2000 Index, the Standard and Poors Technology Index and the Nasdaq Composite Index. We have historically been a member of the Russell 2000 Index and include it here. During fiscal 2017, Coherent moved to the Russell 1000 Index. In the future, we will only include the then current index. 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 1000 INDEX, THE RUSSELL 2000 INDEX, THE S&P TECHNOLOGY INDEX AND THE NASDAQ COMPOSITE INDEX.



	Base Period	INDEXED RETURNS				
		Years Ending				
Company Name / Index	**9/29/2012**	**9/28/2013**	**9/27/2014**	**10/3/2015**	**10/1/2016**	**9/30/2017**
Coherent, Inc.	100	136.48	140.08	121.70	246.02	523.41
Russell 1000 Index	100	121.58	144.71	145.40	164.36	194.83
Russell 2000 Index	100	130.10	137.32	138.54	158.02	190.80
S&P Technology Index	100	107.51	137.96	143.25	173.33	223.40
Nasdaq Composite Index	100	123.09	148.66	156.94	179.29	221.75

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.

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 included elsewhere in this annual report.

We derived the consolidated statement of operations data for fiscal 2017, 2016 and 2015 and the consolidated balance sheet data as of fiscal 2017 and 2016 year-end from our audited consolidated financial statements, and accompanying notes, contained in this annual report. The consolidated statements of operations data for fiscal 2014 and 2013 and the consolidated balance sheet data as of fiscal 2015, 2014 and 2013 year-end are derived from our audited consolidated financial statements which are not included in this annual report.

Consolidated financial data	Fiscal 2017(1)	Fiscal 2016(2)	Fiscal 2015(3)	Fiscal 2014	Fiscal 2013(4)
		(in thousands, except per share data)			
Net sales	$1,723,311	$ 857,385	$802,460	$794,639	$810,126
Gross profit	$ 750,269	$ 381,392	$335,399	$313,390	$322,271
Net income from continuing operations	208,644	$ 87,502	$ 76,409	$ 59,106	$ 66,355
Net income per share from continuing operations(5):					
Basic	$ 8.52	$ 3.62	$ 3.09	$ 2.39	$ 2.75
Diluted	$ 8.42	$ 3.58	$ 3.06	$ 2.36	$ 2.70
Shares used in computation(5):					
Basic	24,487	24,142	24,754	24,760	24,138
Diluted	24,777	24,415	24,992	25,076	24,555
Total assets*	$2,337,800	$1,161,148	$968,947	$999,375	$966,478
Long-term obligations	$ 589,001	$ —	$ —	$ —	$ —
Other long-term liabilities*	$ 166,390	$ 48,826	$ 49,939	$ 62,407	$ 62,132
Stockholders' equity	$1,163,264	$ 910,828	$796,418	$819,649	$758,518
Other data:					
Cash dividends declared per share	$ —	$ —	$ —	$ —	$ 1.00

* In November 2015, the FASB issued amended guidance that clarifies that in a classified statement of financial position, an entity shall classify deferred tax liabilities and assets as noncurrent amounts. The new guidance supersedes ASC 740-10-45-5 which required the valuation allowance for a particular tax jurisdiction be allocated between current and noncurrent deferred tax assets for that tax jurisdiction on a pro rata basis. We elected to early adopt the standard retrospectively in fiscal 2016, which resulted in the reclassification of current deferred income tax assets to non-current deferred income tax assets and non-current deferred income tax liabilities on our consolidated balance sheets for fiscal 2017, 2016 and 2015. The impact of the reclassifications to deferred tax assets and liabilities for fiscal 2014 and 2013 were immaterial.

(1) Includes $19.0 million of after-tax amortization of purchase accounting step-up, $17.4 million of after tax costs related to the acquisition of Rofin, $8.4 million of after-tax restructuring charges, a charge of $1.9 million after-tax for the impairment of net assets of several entities held for sale, $1.8 million after-tax interest expense on the commitment of our term loan to finance the acquisition of Rofin, a $7.1 million after-tax gain on our hedge of our foreign exchange risk related to the commitment of our term loan and the issuance of debt to finance the acquisition of Rofin, a $3.4 million after-tax gain on our sale of previously owned Rofin shares and a benefit of $1.4 million from the closure of R&D tax audits.

(2) Includes \$6.4 million of after tax costs related to the acquisition of Rofin, a \$1.4 million after-tax loss on our hedge of our foreign exchange risk related to the commitment of our term loan to finance the acquisition of Rofin, \$0.8 million after-tax interest expense on the commitment of our term loan to finance the acquisition of Rofin and a benefit a benefit of \$1.2 million from the renewal of the R&D tax credit for fiscal 2015.

(3) Includes a charge of \$1.3 million after tax for the impairment of our investment in SiOnyx, a \$1.3 million after-tax charge for an accrual related to an ongoing customs audit, a benefit of \$1.1 million from the renewal of the R&D tax credit for fiscal 2014 and \$1.3 million gain on our purchase of Tinsley in the fourth quarter of fiscal 2015.

(4) Includes a tax benefit of \$1.4 million from the renewal of the R&D tax credit for fiscal 2012.

(5) See Note 2, "Significant Accounting Policies" in our Notes to Consolidated Financial Statements under Item 15 of this annual report 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 under Item 15 of 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

Below is a summary of some of the quantitative performance indicators (as defined below) that are evaluated by management to assess our financial performance. Some of the indicators are non-GAAP measures and should not be considered as an alternative to any other measure for determining operating performance that is calculated in accordance with generally accepted accounting principles. As previously announced, management determined that we would no longer present non-GAAP bookings data effective in the second quarter of fiscal 2017. We were one of the few companies in the industry that provided bookings information, which we believe put us at a competitive disadvantage. In addition, our bookings volatility has and will continue to be high by virtue of the excimer laser annealing ("ELA") business where high average selling prices can cause large swings in bookings; these swings are not indicative of the long-term potential of the business. We believe this change will put more focus on our key performance metrics discussed below. Accordingly, we no longer provide bookings, book-to-bill ratio and related disclosure in our MD&A.

	Fiscal		
	2017	2016	2015
	(Dollars in thousands)		
Net Sales—OEM Laser Sources	$1,143,620	$722,517	$655,854
Net Sales—Industrial Lasers & Systems	$ 579,691	$134,868	$146,606
Gross Profit as a Percentage of Net Sales—OEM Laser Sources	53.6%	48.3%	45.5%
Gross Profit as a Percentage of Net Sales—Industrial Lasers & Systems	24.4%	26.0%	27.0%
Research and Development Expenses as a Percentage of Net Sales	6.9%	9.5%	10.2%
Income Before Income Taxes	$ 302,055	$122,896	$ 99,568
Net Cash Provided by Operating Activities	$ 384,116	$105,299	$124,458
Days Sales Outstanding in Receivables	63.9	69.6	63.8
Annualized Fourth Quarter Inventory Turns	2.6	2.5	3.0
Capital Spending as a Percentage of Net Sales	3.7%	5.8%	2.8%
Net Income as a Percentage of Net Sales	12.1%	10.2%	9.5%
Adjusted EBITDA as a Percentage of Net Sales	30.1%	22.6%	19.3%

Definitions and analysis of these performance indicators are as follows:

Net Sales

Net sales include sales of lasers, laser tools, related accessories and service. Net sales for fiscal 2017 increased 58.3% in our OLS segment and increased 329.8% in our ILS segment from fiscal 2016, with the majority of the increase in the ILS segment due to Rofin net sales since the acquisition on November 7, 2016. Net sales for fiscal 2016 increased 10.2% in our OLS segment and decreased 8.0%

in our ILS segment from fiscal 2015. For a description of additional 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 OLS increased to 53.6% in fiscal 2017 from 48.3% in fiscal 2016 and from 45.5% in fiscal 2015. Gross profit percentage for ILS decreased to 24.4% in fiscal 2017 from 26.0% in fiscal 2016 and from 27.0% in fiscal 2015. 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 6.9% in fiscal 2017 from 9.5% in fiscal 2016 and 10.2% in fiscal 2015. 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 are 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 2017 decreased to 63.9 days from 69.6 days in fiscal 2016. The decrease in DSO in receivables is primarily due to higher sales of ELA tools used in the flat panel display market in Asia and the timing of collection of those receivables, lower sales and receivables in Japan which typically has a higher DSO and a lower concentration of sales in the last two months of the year partially offset by the impact of our acquisition of Rofin, which has higher DSOs than those previously reported by us prior to the acquisition.

Annualized Fourth Quarter Inventory Turns

We calculate annualized fourth quarter 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 fourth quarter inventory turns for fiscal 2017 increased to 2.6 turns from 2.5 turns in fiscal 2016. Improvements in turns due to higher shipments of large ELA tools used in the flat panel display market were partially offset by the impact of our acquisition of Rofin in the first quarter of fiscal 2017 due to Rofin's lower inventory turns rate.

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 and equipment. Management monitors capital spending levels as this assists us in measuring our cash flows, net of capital expenditures. Our capital spending percentage decreased to 3.7% in fiscal 2017 from 5.8% in fiscal 2016. Our capital spending percentage increased to 5.8% in fiscal 2016 from 2.8% in fiscal 2015. The fiscal 2017 decrease was primarily due to the impact of higher revenues in fiscal 2017 partially offset by investments to expand our manufacturing capacity in Göttingen, Germany, incremental capital spending due to our acquisition of Rofin in the first quarter of fiscal 2017, the upgrade of certain of our production facilities in California and higher purchases of production-related assets. The fiscal 2016 increase was primarily due to increased investments to expand our manufacturing capacity in Göttingen, Germany, the upgrade of certain of our production facilities in California and New Jersey and higher purchases of production-related assets, partially offset by the impact of higher revenues in fiscal 2016.

Adjusted EBITDA as a Percentage of Net Sales

We define adjusted EBITDA as operating income adjusted for depreciation, amortization, stock compensation expense, major restructuring costs and certain other non-operating income and expense items, such as costs related to our acquisition of Rofin. Key initiatives for EBITDA improvements include utilization of our Asian manufacturing locations, optimizing our supply chain and continued leveraging of our infrastructure.

We utilize a number of different financial measures, both GAAP and non-GAAP, such as adjusted EBITDA as a percentage of net sales, in analyzing and assessing our overall business performance, for making operating decisions and for forecasting and planning future periods. We consider the use of non-GAAP financial measures helpful in assessing our current financial performance and ongoing operations. While we use non-GAAP financial measures as a tool to enhance our understanding of certain aspects of our financial performance, we do not consider these measures to be a substitute for, or superior to, the information provided by GAAP financial measures. We provide adjusted EBITDA in order to enhance investors' understanding of our ongoing operations. This measure is used by some investors when assessing our performance.

Below is the reconciliation of our net income from continuing operations as a percentage of net sales to our adjusted EBITDA as a percentage of net sales:

	Fiscal		
	2017	2016	2015
Net income from continuing operations as a percentage of net sales	12.1%	10.2%	9.5%
Income tax expense	5.4%	4.1%	2.9%
Interest and other income, net	1.6%	0.8%	0.2%
Depreciation and amortization	6.1%	4.0%	4.1%
Purchase accounting step-up	1.5%	—%	0.1%
Restructuring charges	0.7%	—%	—%
Gain on business combination	(0.3)%	—%	(0.2)%
Customs audit	—%	—%	0.2%
Costs related to acquisition of Rofin	1.0%	1.1%	—%
Impairment of assets held for sale	0.2%	—%	—%
Impairment of investment	—%	—%	0.2%
Stock-based compensation	1.8%	2.4%	2.3%
Adjusted EBITDA as a percentage of net sales	30.1%	22.6%	19.3%

SIGNIFICANT EVENTS

Acquisitions and related financing

On November 7, 2016, we completed our acquisition of Rofin pursuant to the Merger Agreement dated March 16, 2016. Rofin is one of the world's leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components. The acquisition was an all-cash transaction at a price of $32.50 per share of Rofin common stock. The aggregate consideration paid by us to the former Rofin stockholders was approximately $904.5 million, excluding related transaction fees and expenses. We also paid $15.3 million due to the cancellation of options held by employees of Rofin. We funded the payment of the aggregate consideration with a combination of our available cash on hand and the proceeds from the Euro Term Loan described below. As a condition of the acquisition, we were required to hold separate and divest Rofin's low power CO_2 laser business based in Hull, United Kingdom (the "Hull Business") and have reported this business separately as a discontinued operation in this Form 10-K for the year ending September 30, 2017. We completed the divestiture of the Hull Business on October 11, 2017, after receiving approval for the terms of the sale from the European Commission. See Note 3, "Business Combinations" in our Notes to Consolidated Financial Statements under Item 15 of this annual report for further discussion of the acquisition.

On November 7, 2016, we entered into a Credit Agreement (the "Credit Agreement") with Barclays Bank PLC ("Barclays"), Bank of America, N.A. ("BAML") and MUFG Union Bank, N.A. ("MUFG"). The Credit Agreement provided for a 670.0 million Euro senior secured term loan facility (the "Euro Term Loan") and a $100.0 million senior secured revolving credit facility. On November 7, 2016, the Euro Term Loan was drawn in full and its proceeds were used to finance our acquisition of Rofin and pay related fees and expenses. Also, on November 7, 2016, we used 10.0 million Euros of the capacity under the revolving credit facility for the issuance of a letter of credit.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement. See Note 9, "Borrowings" in the Notes to Consolidated Financial Statements.

In relation to our acquisition of Rofin, we paid Barclays, our financial advisor, a fee of approximately $9.5 million, $1.0 million of which was paid upon delivery of the fairness opinion in the second quarter of fiscal 2016, and the remaining portion of which was paid upon consummation of the acquisition in the first quarter of fiscal 2017; these fees were recorded in selling, general and administrative expense in our consolidated statements of operations. We also paid Barclays, BAML and MUFG together approximately $17.0 million and $5.6 million for underwriting and upfront fees, respectively, upon the close of the financing on November 7, 2016; these fees are recorded as debt issuance costs on our consolidated balance sheets.

As a result of our acquisition of Rofin in the first quarter of fiscal 2017, we reorganized into two new reporting segments for the combined company based upon our organizational structure and how our Chief Operating Decision Maker receives and utilizes information provided to allocate resources and make decisions: OLS and ILS. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment, is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing

On July 24, 2015, we acquired certain assets of Raydiance, Inc. ("Raydiance") for approximately $5.0 million, excluding transaction costs. Raydiance manufactured complete tools and lasers for ultrafast processing systems and subsystems in the precision micromachining processing market. The Raydiance assets have been included in our OLS segment.

On July 27, 2015, we acquired the assets and certain liabilities of the Tinsley Optics ("Tinsley") business from L-3 Communications Corporation for approximately $4.3 million, excluding transaction costs. Tinsley is a specialized manufacturer of high precision optical components and subsystems sold primarily in the aerospace and defense industry. Tinsley manufactures the large form factor optics for our excimer laser annealing systems. The Tinsley assets have been included in our OLS segment.

On June 8, 2010, we invested $2.0 million in SiOnyx, Inc., a privately-held company. The investment was included in other assets and was being carried on a cost basis. During the third quarter of fiscal 2015 we determined that our investment became other-than temporarily impaired. As a result, we recorded a non-cash charge of $2.0 million to operating expense in our results of operations in the third quarter of fiscal 2015.

RESULTS OF OPERATIONS—FISCAL 2017, 2016 AND 2015

Fiscal 2017 and 2016 consisted of 52 weeks. Fiscal 2015 consisted 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		
	2017	**2016**	**2015**
	(As a percentage of net sales)		
Net sales	100.0%	100.0%	100.0%
Cost of sales	56.5%	55.5%	58.2%
Gross profit	43.5%	44.5%	41.8%
Operating expenses:			
Research and development	6.9%	9.5%	10.2%
Selling, general and administrative	16.9%	19.7%	18.7%
Gain on business combination	(0.3)%	—%	(0.2)%
Impairment of assets held for sale	0.2%	—%	—%
Impairment of investment	—%	—%	0.2%
Amortization of intangible assets	0.9%	0.4%	0.3%
Total operating expenses	24.6%	29.6%	29.2%
Income from operations	18.9%	14.9%	12.6%
Other income (expense), net	(1.4)%	(0.6)%	(0.2)%
Income from continuing operations before income taxes	17.5%	14.3%	12.4%
Provision for income taxes	5.4%	4.1%	2.9%
Net income from continuing operations	12.1%	10.2%	9.5%

Refer to Item 6 "Selected Financial Data" for a description of significant events that impacted the results of operations for fiscal years 2017, 2016 and 2015.

Backlog

Backlog represents orders which we expect to be shipped within 12 months and the current portion of service contracts. Orders used to compute backlog are generally cancelable and, depending on the notice period, are subject to rescheduling by our customers without substantial penalties. Historically, we have not experienced a significant rate of cancellation or rescheduling, though we cannot guarantee that the rate of cancellations or rescheduling will not increase in the future. We had a backlog of orders shippable within 12 months of $1,040.0 million at September 30, 2017, including a significant concentration in the flat panel display market (59%) for customers which are primarily located in Asia.

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):

	Fiscal 2017		Fiscal 2016		Fiscal 2015	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales
Consolidated:						
Microelectronics	$ 894,243	51.9%	$454,908	53.1%	$406,187	50.6%
Materials processing	511,909	29.7%	124,011	14.5%	110,986	13.8%
OEM components and instrumentation	203,082	11.8%	161,573	18.8%	168,741	21.0%
Scientific and government programs	114,077	6.6%	116,893	13.6%	116,546	14.6%
Total	$1,723,311	100.0%	$857,385	100.0%	$802,460	100.0%

Net sales in fiscal 2017 included $434.9 million of Rofin net sales since the acquisition on November 7, 2016, primarily in the materials processing market. During fiscal 2017, net sales increased by $865.9 million, or 101%, compared to fiscal 2016, with significant increases in the microelectronics and materials processing markets, a smaller increase in the OEM components and instrumentation market and a decrease in the scientific and government programs market.

Microelectronics sales increased $439.3 million, or 97%, primarily due to higher shipments related to ELA tools used in the flat panel display market including higher revenues from consumable parts as well as higher shipments related to advanced packaging and semiconductor applications. We expect continued growth in the microelectronics market with flat panel display demand fully utilizing our manufacturing capacity in fiscal 2018, higher flat panel display revenues from consumable parts due to our higher installed base, spending in the semiconductor capital equipment market at a level similar to fiscal 2017 and continued recovery in the advanced packaging market. Materials processing sales increased $387.9 million, or 313%, during fiscal 2017 primarily due to the addition of Rofin net sales and higher shipments for machine tools, automotive and other materials processing applications. We expect continued growth in multiple materials processing applications including automotive (especially battery welding for electric vehicles) and machine tooling, medical device manufacturing, consumer goods manufacturing for packaging, converting, marking and additive manufacturing. We also expect continued steady progress in sales of our high power fiber lasers and are expanding our manufacturing capacity accordingly. The increase in the OEM components and instrumentation market of $41.5 million, or 26%, during fiscal 2017 was primarily due to higher shipments for military, medical and bio-instrumentation applications, with much of the increase in military applications due to our acquisition of Rofin. In OEM components and instrumentation applications, we are seeing strong demand in the bio-instrumentation market, higher demand for consumables in the medical market, in dental applications and in eye disease management as well as increased demand in the defense and aerospace market. The decrease in scientific and government programs market sales of $2.8 million, or 2%, during fiscal 2017 was primarily due to lower demand for advanced research applications used by university and government research groups in the U.S. We expect demand in the scientific and government programs market to continue to fluctuate from quarter to quarter.

During fiscal 2016, net sales increased by $54.9 million, or 7%, compared to fiscal 2015, including decreases due to the unfavorable impact of foreign exchange rates, with sales increases in the microelectronics, materials processing and scientific and government programs markets partially offset by decreases in the OEM components and instrumentation market. Microelectronics sales increased $48.7 million, or 12%, primarily due to higher shipments for flat panel display annealing systems and higher shipments for semiconductor applications partially offset by lower shipments for advanced packaging applications. Materials processing sales increased $13.0 million, or 12%, during fiscal 2016 primarily due to higher shipments for cutting, marking and other materials processing applications. The increase in scientific and government programs market sales of $0.3 million, or 0%, during fiscal 2016 was primarily due to higher demand for advanced research applications used by university and government research groups. The decrease in the OEM components and instrumentation market of $7.2 million, or 4%, during fiscal 2016 was primarily due to lower shipments for medical and machine vision applications partially offset by higher shipments for military and bio-instrumentation applications.

The timing for shipments of our higher average selling price excimer products in the flat panel display market have historically fluctuated and are in the future expected to fluctuate from quarter-to-quarter due to customer scheduling, our ability to manufacture these products and/or availability of critical component parts and supplies. As a result, the timing to convert orders for these products to net sales will likely fluctuate from quarter-to-quarter.

We have historically experienced decreased 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 our facilities and those of many of our customers due to year-end holidays. For example over the past 10 years, excluding certain recovery years, our first fiscal quarter revenues have ranged 2%-12% below the fourth quarter of the prior fiscal years. With the acquisition of Rofin in fiscal 2017, we expect a more pronounced decrease in revenues in the first quarter of the fiscal year as Rofin has historically experienced more pronounced seasonality, particularly in materials processing applications, than Coherent historically has experienced.

In fiscal 2017, 2016 and 2015, one customer accounted for 23%, 13% and 17% of net sales, respectively. In fiscal 2016, another customer accounted for 16% of net sales.

Segments

We are organized into two reportable operating segments: OLS and ILS. While both segments deliver cost-effective, highly reliable photonics solutions, OLS is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. ILS delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing.

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 2017		Fiscal 2016		Fiscal 2015	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales
Consolidated:						
OEM Laser Sources (OLS)	$1,143,620	66.4%	$722,517	84.3%	$655,854	81.7%
Industrial Lasers & Systems (ILS)	579,691	33.6%	134,868	15.7%	146,606	18.3%
Total	$1,723,311	100.0%	$857,385	100.0%	$802,460	100.0%

Net sales for fiscal 2017 increased $865.9 million, or 101%, compared to fiscal 2016, with increases of $421.1 million, or 58%, in our OLS segment and increases of $444.8 million, or 330%, in our ILS segment. The impact of foreign exchange rates was not significant to fiscal 2017 sales in either segment. Net sales for fiscal 2016 increased $54.9 million, or 7%, compared to fiscal 2015, with increases of $66.7 million, or 10.2%, in our OLS segment and decreases of $11.7 million, or 8.0%, in our ILS segment. Both the fiscal 2016 increase and decrease in OLS and ILS segment sales, respectively, included decreases due to the unfavorable impact of foreign exchange rates.

The increase in our OLS segment sales in fiscal 2017 was primarily due to higher shipments of ELA tools used in the flat panel display market and higher revenues from consumable parts as well as higher shipments for semiconductor and advanced packaging applications. The increase in our OLS segment sales in fiscal 2016 was primarily due to higher shipments of ELA tools used in the flat panel display market and higher revenues from consumable parts as well as higher shipments for materials processing, semiconductor and military applications partially offset by lower shipments for medical and advanced packaging applications. The fiscal 2016 increase includes an increase of $11.3 million, primarily in military and scientific applications, resulting from our acquisitions of Tinsley and Raydiance assets in the fourth quarter of fiscal 2015.

The increase in our ILS segment sales from fiscal 2016 to fiscal 2017 was primarily due to higher shipments for materials processing, microelectronics and OEM components and instrumentation applications due to our acquisition of Rofin ($429.2 million) as well as higher shipments to the medical, flat panel display and advanced packaging markets. The decrease in our ILS segment sales from fiscal 2015 to fiscal 2016 was primarily due to lower advanced packaging, materials processing and medical application sales.

Gross Profit

Consolidated

Our gross profit rate decreased by 1.0% to 43.5% in fiscal 2017 from 44.5% in fiscal 2016 primarily due to the impact of purchase accounting adjustments (4.0%) for amortization of inventory step-up and amortization of intangibles related to our acquisition of Rofin in the first quarter of fiscal 2017. Also contributing to the decrease was the impact of our acquisition of Rofin due to Rofin's margins that are lower than Coherent's historical margins (3.6% before considering purchase accounting adjustments). The decreases were partially offset by improvements in margins of Coherent historical products (6.6%) primarily due to the favorable leverage of manufacturing costs on higher volumes and favorable mix in flat panel display applications for both system sales and service, as well as the favorable impact of foreign exchange rates, lower inventory provisions for excess and obsolete inventory, reduced freight costs and lower warranty costs as a percentage of sales due to the impact of significantly higher net sales.

Our gross profit rate increased by 2.7% to 44.5% in fiscal 2016 from 41.8% in fiscal 2015 primarily due to favorable product margins (2.2%) resulting from the impact of higher volumes in certain business units (primarily flat panel display applications) and the favorable impact from foreign currency fluctuations (primarily the Euro and Yen) as well as favorable mix in the microelectronics market, particularly for flat panel display applications, net of unfavorable mix in the OEM components and instrumentation market. In addition, the margin also benefited from lower other costs (0.3%) due primarily to an accrual in the third quarter of fiscal 2015 for a customs audit in South Korea and lower inventory charges for excess or obsolete inventory as well as lower warranty costs (0.2%) due to fewer warranty events.

Our gross profit rate has been and will continue to be affected by a variety of factors including market and product mix, pricing on volume orders, shipment volumes, our ability to manufacture advanced and more complex products, manufacturing efficiencies, excess and obsolete inventory write-downs, warranty costs, amortization of intangibles, pricing by competitors or suppliers, new product introductions, production volume, customization and reconfiguration of systems, commodity prices and foreign currency fluctuations, particularly the recent volatility of the Euro and a lesser extent, the Japanese Yen and South Korean Won.

OEM Laser Sources

Our OLS gross profit rate increased by 5.3% to 53.6% in fiscal 2017 from 48.3% in fiscal 2016 primarily due to favorable product margins (4.1%) as a result of favorable mix within flat panel display applications for both systems and service, favorable mix in other microelectronics and materials processing applications and higher leverage of manufacturing costs on higher volumes, as well as the favorable impact of the weaker Euro and stronger Yen and Won compared to fiscal 2016. Also contributing to the increase in gross profit rate as a percentage of sales due to the impact of significantly higher sales volumes were lower other costs (0.7%) due to lower inventory provisions for excess and obsolete inventory and reduced freight and duty costs in certain business units, lower intangibles amortization (0.3%) and lower installation and warranty costs (0.2%).

Our OLS gross profit rate increased by 2.8% to 48.3% in fiscal 2016 from 45.5% in fiscal 2015 primarily due to favorable product margins (2.4%), lower warranty costs (0.2%) due to fewer warranty events, lower other costs (0.1%) and lower intangibles amortization expense (0.1%). The 2.7% product margin improvement resulted from the impact of higher volumes in most business units and the favorable impact from foreign currency fluctuations (primarily the Euro and Yen) as well as favorable mix in the microelectronics market, particularly for flat panel display applications, including favorable service mix net of unfavorable mix in the OEM components and instrumentation market.

Industrial Lasers & Systems

Our ILS gross profit rate decreased by 1.6% to 24.4% in fiscal 2017 from 26.0% in fiscal 2016 primarily due to the impact of purchase accounting adjustments (11.1%) for amortization of intangibles and inventory step-up related to our acquisition of Rofin in the first quarter of fiscal 2017 and restructuring costs (1.1%) related to the implementation of planned restructuring activities in connection with our acquisition of Rofin, which is primarily related to the exit from our preexisting high power fiber laser product line and other Rofin product lines. The decreases in gross profit rate were partially offset by the favorable impact of Rofin's margins before considering purchase accounting adjustments. Rofin's high-power fiber laser and global tools businesses have higher margins than Coherent's legacy ILS businesses.

Our ILS gross profit rate decreased by 1.0% to 26.0% in fiscal 2016 from 27.0% in fiscal 2015 primarily due to unfavorable product margin (1.1%) and higher warranty costs (0.3%) due to more warranty events partially offset by lower other costs (0.5%) due to lower freight and packaging costs as well as lower inventory charges for excess or obsolete inventory. The 1.1% product margin deterioration resulted from unfavorable yields and lower volumes in certain business units partially offset by favorable mix in the OEM components and instrumentation and materials processing markets.

Operating Expenses

The following table sets forth, for the periods indicated, the amount of operating expenses and their relative percentages of total net sales by the line items reflected in our consolidated statement of operations (dollars in thousands):

	Fiscal					
	2017		2016		2015	
	Amount	Percentage of total net sales	Amount	Percentage of total net sales	Amount	Percentage of total net sales
			(Dollars in thousands)			
Research and development	$119,166	6.9%	$ 81,801	9.5%	$ 81,455	10.2%
Selling, general and administrative	292,084	16.9%	169,138	19.7%	149,829	18.7%
Gain on business combination	(5,416)	(0.3)%	—	—%	(1,316)	(0.2)%
Impairment of assets held for sale	2,916	0.2%	—	—%	—	—%
Impairment of investment	—	—%	—	—%	2,017	0.2%
Amortization of intangible assets	16,024	0.9%	2,839	0.4%	2,667	0.3%
Total operating expenses	$424,774	24.6%	$253,778	29.6%	$234,652	29.2%

Research and development

Fiscal 2017 research and development ("R&D") expenses increased $37.4 million, or 46%, from fiscal 2016, but decreased to 6.9% of sales, compared to 9.5% in fiscal 2016. The increase was primarily due to the addition of Rofin R&D expenses ($32.0 million, excluding $0.7 million of restructuring costs for severance) since the acquisition on November 7, 2016, $2.2 million higher project spending, including higher variable compensation and lower reimbursements from customers, and $2.1 million of restructuring costs related to the exit from our historical Coherent high power fiber laser product line in the first quarter of fiscal 2017. There were also increases of $0.8 million for higher stock-based compensation expense including $0.4 million related to a charge recorded in the first quarter of fiscal 2017 due to the acceleration of Rofin options and $0.3 million higher charges for increases in deferred compensation plan liabilities. On a segment basis as compared to the prior year period, OLS research and development spending increased $7.4 million primarily due to higher net spending on projects. ILS spending increased $27.7 million primarily due to our acquisition of Rofin and restructuring costs, partially offset by lower project spending. Corporate and other spending increased $2.3 million due to higher project spending in our advanced research business unit, higher stock-based compensation expense and higher charges for increases in deferred compensation plan liabilities.

Fiscal 2016 R&D expenses increased $0.3 million, or less than 1%, from fiscal 2015, but decreased to 9.5% from 10.2% of net sales. The $0.3 million increase was primarily due to $2.0 million incremental spending from the asset acquisitions from Tinsley and Raydiance, both of which were acquired in the fourth quarter of fiscal 2015, $0.3 million higher stock-based compensation expense and $0.3 million higher charges for increases in deferred compensation plan liabilities. The increases were partially offset by $2.3 million lower project spending including the favorable impact of foreign exchange rates, lower spending on labor and materials and higher customer reimbursements. On a segment basis, OLS spending increased $0.7 million primarily due to the asset acquisitions from Tinsley and Raydiance partially offset by lower project spending including the favorable impact of foreign exchange rates. ILS spending decreased $1.4 million primarily due to lower spending on projects and higher customer reimbursements. Corporate and other spending increased $1.0 million primarily due to higher charges for increases in deferred compensation plan liabilities and higher stock-based compensation expense.

Selling, general and administrative

Fiscal 2017 selling, general and administrative ("SG&A") expenses increased $122.9 million, or 73%, from fiscal 2016. The increase was primarily due to the addition of Rofin SG&A expenses ($75.2 million excluding $2.6 million restructuring costs for severance) following the acquisition in the first quarter of fiscal 2017, $15.5 million higher other spending on legal, consulting and infrastructure related to integration activities and the debt repricing as well as other variable spending in support of higher sales, $11.1 million higher payroll spending for variable compensation, commissions and salaries and benefits and $7.7 million higher financial advisory, consulting and legal costs related to our acquisition of Rofin. SG&A expense also increased due to $8.6 million higher stock-based compensation expense, including $3.4 million related to a charge recorded in the first quarter of fiscal 2017 due to the acceleration of Rofin options, as well as higher expense for new grants, $3.4 million of restructuring costs (primarily severance) and $1.4 million higher charges for increases in deferred compensation plan liabilities. On a segment basis as compared to the prior year period, OLS segment expenses increased $22.4 million primarily due to higher payroll and other variable spending as well as spending relating to a historical Rofin business unit which is included in our OLS segment. ILS spending increased $74.3 million primarily due to our acquisition of Rofin ($78.7 million) and higher payroll and other variable spending. Corporate and other spending increased $26.2 million primarily due to higher financial advisory, consulting and legal costs related to our acquisition of Rofin, higher stock-based compensation expense, higher charges for increases in deferred compensation plan liabilities and higher payroll spending.

Fiscal 2016 SG&A expenses increased $19.3 million, or 13%, from fiscal 2015. The increase was primarily due to a net $8.5 million higher consulting and legal costs related to acquisitions in fiscal 2016 compared to fiscal 2015 (of which $9.8 million was related to the acquisition of Rofin in fiscal 2016) and $6.2 million higher payroll spending primarily due to higher variable compensation and higher sales commissions net of the favorable impact of foreign exchange rates. In addition, the increase includes $1.8 million higher charges for increases in deferred compensation plan liabilities, $1.6 million higher stock-based compensation expense due to (1) a higher average stock price during fiscal 2016, (2) a higher number of restricted stock shares outstanding and (3) the expense related to accounting for the transition agreement of our former CFO, and $1.2 million higher other net variable spending including incremental spending from the asset acquisitions of Tinsley and Raydiance. On a segment basis as compared to the prior year period, OLS segment expenses increased $4.9 million primarily due to higher payroll spending and the impact due to the asset acquisitions from Tinsley and Raydiance net of the favorable impact of foreign exchange rates. ILS spending increased $1.0 million primarily due to higher payroll spending net of the favorable impact of foreign exchange rates. Spending for Corporate and other increased $13.4 million primarily due to higher consulting and legal costs related to acquisitions, higher charges for increases in deferred compensation plan liabilities, higher stock-based compensation expense and higher payroll spending.

Gain on business combination

On November 7, 2016, we acquired Rofin at a price of $32.50 per share of Rofin common stock (See Note 3, "Business Combinations" in the Notes to Consolidated Financial Statements). We recognized a gain of $5.4 million in our consolidated statements of operations in the first quarter of fiscal 2017 on the increase in fair value from the date of purchase for the shares of Rofin we owned prior to the acquisition.

On July 27, 2015, we acquired the assets and certain liabilities of the Tinsley business from L-3 Communications Corporation for approximately $4.3 million, excluding transaction costs (See Note 3). The purchase price was lower than the fair value of net assets purchased, resulting in a gain of $1.3 million recorded in our consolidated statements of operations for our fiscal year 2015.

Impairment of assets held for sale

In the fourth quarter of fiscal 2017, management decided to sell several entities that we acquired in the Rofin acquisition. Although the sale was not completed as of the end of fiscal 2017, we recorded a non-cash impairment charge of $2.9 million to operating expense in our results of operations in the fourth quarter of fiscal 2017 to reduce our carrying value in these entities to fair value.

Impairment of investment

On June 8, 2010, we invested $2.0 million in SiOnyx, Inc., a privately-held company. The investment was included in other assets and was being carried on a cost basis. During the third quarter of fiscal 2015 we determined that our investment became other-than temporarily impaired. As a result, we recorded a non-cash impairment charge of $2.0 million to operating expense in our results of operations in the third quarter of fiscal 2015.

Amortization of intangible assets

Amortization of intangible assets increased $13.2 million, or 464%, from fiscal 2016 to fiscal 2017 primarily due to our acquisition of Rofin in the first quarter of fiscal 2017.

Amortization of intangible assets increased $0.2 million, or 6%, from fiscal 2015 to fiscal 2016 primarily due to increases due to the write-off of IPR&D of $0.4 million related to our acquisition of Innolight and due to the asset acquisition from Raydiance in the fourth quarter of fiscal 2015 partially offset by the completion of amortization of certain intangibles from prior acquisitions.

Other income (expense), net

Other income (expense), net, changed by $18.7 million to other expense of $23.4 million in fiscal 2017 from other expense of $4.7 million in fiscal 2016. The higher expenses were primarily due to higher interest expense of $33.0 million partially offset by $11.0 million higher foreign exchange gains and $3.2 million higher gains, net of expenses, on our deferred compensation plan assets, including a death benefit of $1.3 million. Interest expense increased due to interest on the Euro Term Loan and interest on the commitment of the Euro Term Loan to fund our acquisition of Rofin as well as amortization of debt issuance costs related to the Euro Term Loan. The higher foreign exchange gains were primarily due to a gain of $11.3 million on forward contracts associated with our foreign exchange risk related to the commitment of our Euro Term Loan and the issuance of the Euro Term Loan to finance our acquisition of Rofin partially offset by the impact of changing rates on cash conversions.

Other income (expense), net, changed by $3.5 million to other expense of $4.7 million in fiscal 2016 from other expense of $1.2 million in fiscal 2015. The higher expenses were primarily due to higher net foreign exchange losses ($4.9 million) and $1.3 million higher interest expense primarily for the commitment of our term loan to finance the acquisition of Rofin partially offset by $2.1 million higher gains, net of expenses, on our deferred compensation plan assets and $0.5 million higher interest income due to higher balances of cash and short-term investments. The higher foreign exchange losses were primarily due to (1) higher unhedged exposure in fiscal 2016, (2) a loss of $2.2 million on our hedge of our foreign exchange risk related to the commitment of our term loan to finance the acquisition of Rofin, (3) the significant movement of rates in June 2016 due to the Brexit vote and (4) higher forward points on our hedging contracts.

Income taxes

The effective tax rate on income from continuing operations before income taxes for fiscal 2017 of 30.9% was lower than the statutory rate of 35.0%. This was primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and federal research and development tax credits, the benefit of a domestic manufacturing deduction under IRC Section 199 and the release of certain tax reserves due to audit settlement. These amounts are partially offset by Rofin transaction costs not deductible for tax purposes, tax costs of Rofin restructuring, ASC 740-10 (formerly FIN48) tax liabilities for transfer pricing, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

The effective tax rate on income from continuing operations before income taxes for fiscal 2016 of 28.8% was lower than the statutory rate of 35.0%. This was primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and the benefit of federal research and development tax credits including renewal of the federal research and development tax credits for fiscal 2015. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

The effective tax rate on income from continuing operations before income taxes for fiscal 2015 of 23.3% was lower than the statutory rate of 35.0%. This was primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including South Korea and Singapore tax exemptions, the benefit of foreign tax credits and the benefit of federal research and development tax credits including renewal of the federal research and development tax credits for fiscal 2014. These amounts are partially offset by deemed dividend inclusions under the Subpart F tax rules, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

During fiscal 2017, we increased our valuation allowance on deferred tax assets by $11.1 million to $28.7 million primarily due to the increase in California and other states research and development tax credits and the release of R&D tax reserves for California and other states, which are not expected to be recognized. During fiscal 2016, we increased our valuation allowance on deferred tax assets by $2.1 million to $17.6 million primarily due to the increase in California and other states research and development tax credits which are not expected to be recognized. 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.

In October 2016, Coherent Singapore received an amended Pioneer Status tax exemption from the Singapore authorities effective from fiscal 2012 through fiscal 2021. The tax holiday continues to be conditional upon our meeting certain revenue, business spending and employment thresholds. The impact of this tax exemption decreased Singapore income taxes by approximately $1.1 million and $0.7 million in fiscal 2017 and fiscal 2016, respectively. There are no tax benefits for fiscal 2015 due to the utilization of net operating loss.

FINANCIAL CONDITION

Liquidity and capital resources

At September 30, 2017, we had assets classified as cash and cash equivalents and short-term investments, in an aggregate amount of $475.6 million, compared to $400.0 million at October 1, 2016. Our cash and cash equivalents and short-term investments included $151.6 million of cash at Rofin entities. In addition, at September 30, 2017, we had $14.0 million of restricted cash. At September 30, 2017, approximately $300.0 million of our cash and securities was held in certain of our foreign subsidiaries, $263.2 million of which was denominated in currencies other than the U.S. dollar. At September 30, 2017, we had approximately $299.4 million of cash held by foreign subsidiaries where we intend to permanently reinvest our accumulated earnings in these entities and our current plans do not demonstrate a need for these funds to support our domestic operations. If, however, a portion of these funds are needed for and distributed to our operations in the United States, we may be subject to additional U.S. income taxes and foreign withholding taxes. An exception to U.S. taxation may be the repatriation of foreign funds that had been previously taxed in the U.S. as Subpart F income. The amount of the U.S. and foreign taxes due would 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, sovereign debt and other securities 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. In the first quarter of fiscal 2017, we spent a significant portion of our foreign funds on the Rofin acquisition. We did not repatriate foreign funds to our domestic operations to fund this acquisition. We expect to have adequate foreign funds in the future to service the acquisition debt and do not anticipate any repatriation of foreign funds to operate our domestic business.

In fiscal 2016, 2015 and 2014, we converted a total of $160.6 million of cash and securities held in certain of our foreign subsidiaries to U.S. dollars and invested those funds within a European subsidiary whose functional currency is the U.S. dollar. In the first quarter of fiscal 2017, we used these funds to purchase Rofin and pay related acquisition expenses. The converted funds were not repatriated to the U.S. and no U.S. tax was triggered on the transfer of these funds to the European subsidiary. See ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK below for more information about risks and trends related to foreign currencies.

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 from our Euro Term Loan used to finance our acquisition of Rofin, proceeds received from the sale of our stock through our employee stock purchase plan as well as borrowings under our domestic line of credit. Our historical uses of cash have primarily been for acquisitions of businesses and technologies, the repurchase of our common stock, capital expenditures and debt issuance costs. 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):

	Fiscal		
	2017	**2016**	**2015**
Net cash provided by operating activities	**$ 384,116**	$105,299	$124,458
Sales of shares under employee stock plans	**8,111**	7,849	7,308
Net settlement of restricted common stock	**(15,717)**	(5,443)	(5,302)
Repurchase of common stock	**—**	—	(75,027)
Capital expenditures	**(63,774)**	(49,327)	(22,163)
Acquisition of businesses, net of cash acquired	**(740,481)**	—	(9,300)
Borrowings, net of repayments	**539,149**	20,000	—
Debt issuance costs	**(26,367)**	(5,202)	—

Net cash provided by operating activities increased by $278.8 million in fiscal 2017 compared to fiscal 2016 and decreased by $19.2 million in fiscal 2016 compared to fiscal 2015. The increase in cash provided by operating activities in fiscal 2017 was primarily due to higher net income, higher cash flows due to higher non-cash expenses for amortization, stock-based compensation and depreciation, higher income taxes payable, higher deferred revenue and higher cash flows from the timing of shipments of large systems from inventory partially offset by lower cash flows from accounts receivable. The decrease in cash provided by operating activities in fiscal 2016 was primarily due to lower cash flows from the timing of shipments of large systems from inventory and lower cash flows from accounts receivable partially offset by higher net income and higher accrued payroll and accounts payable balances. We believe that our existing cash, cash equivalents and short term investments combined with cash to be provided by operating activities and amounts available under our revolving credit facility 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 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 to consider acquisition opportunities at valuations we believe are reasonable based upon market conditions. 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 through additional borrowings (as in our acquisition of Rofin), existing cash balances and cash flows from operations. If required, we will 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 November 7, 2016 (the "Closing Date"), we entered into a Credit Agreement by and among Coherent, Inc., Coherent Holding BV & Co. K.G. (formerly Coherent GmbH), as borrower (the "Borrower"), and certain of our direct and indirect subsidiaries from time to time party thereto, as guarantors, the lenders from time to time party thereto, Barclays, as administrative agent and an L/C Issuer, BAML as an L/C Issuer, and MUFG as an L/C Issuer (the "Credit Agreement"). The Credit Agreement provided for a 670.0 million Euro senior secured term loan facility (the "Euro Term Loan") and a $100.0 million senior secured revolving credit facility ("Revolving Credit Facility") with a $30.0 million letter of credit sublimit and a $10.0 million swing line sublimit. The Borrower may increase the aggregate revolving commitments or borrow incremental term loans in an aggregate principal amount not to exceed the sum of $150.0 million and an amount that would not cause the senior secured net leverage ratio to be greater than 2.75 to 1.00, subject to certain conditions, including obtaining additional commitments from the lenders then party to the Credit Agreement or new lenders. On November 7, 2016, the Borrower borrowed the full 670.0 million Euros under the Euro Term Loan and its proceeds were used to finance our acquisition of Rofin and pay related fees and expenses. On November 7, 2016, we also used 10.0 million Euros of the capacity under the Revolving Credit Facility for the issuance of a letter of credit.

Loans under the Credit Agreement bear interest, at the Borrower's option, at a rate equal to either (i)(x) in the case of calculations with respect to U.S. Dollars or certain other alternative currencies, the London interbank offered rate (the "LIBOR") or (y) in the case of calculations with respect to the Euro, the euro interbank offered rate ("EURIBOR" and, together with LIBOR, the "Eurocurrency Rate") or (ii) a base rate (the "Base Rate") equal to the highest of (x) the federal funds rate, plus 0.50%, (y) the prime rate then in effect and (z) the Eurocurrency Rate for loans denominated in U.S. dollars applicable to a one-month interest period, plus 1.0%, in each case, plus an applicable margin. The applicable margin for Euro Term Loan borrowed as Eurocurrency Rate loans, is 3.50% initially, and following the first anniversary of the Closing Date ranges from 3.50% to 3.00% depending on the consolidated total gross leverage ratio at the time of determination. For Euro Term Loan borrowed as Base Rate loans, the applicable margin initially is 2.50%, and following the first anniversary of the Closing Date ranges from 2.50% to 2.00% depending upon the consolidated total gross leverage ratio at the time of determination. The applicable margin for revolving loans borrowed as Eurocurrency Rate loans, ranges from 4.25% to 3.75%, and for revolving loans borrowed as Base Rate loans, ranges from 3.25% to 2.75%, in each case, based on the consolidated total gross leverage ratio at the time of determination. Interest on Base Rate loans is payable quarterly in arrears. Interest on Eurocurrency Rate loans is payable at the end of the applicable interest period (or at three month intervals if the interest period exceeds three months). Interest periods for Eurocurrency Rate loans may be, at the Borrower's option, one, two, three or six months.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement to, among other things, (i) reduce the applicable interest rate margins with respect to the Euro Term Loans to 1.25% for Euro Term Loans maintained as Base Rate loans and 2.25% for Euro Term Loans maintained as Eurocurrency Rate loans, with stepdowns to 1.00% and 2.00%, respectively, available after May 8, 2018 if the consolidated total gross leverage ratio for Coherent and its restricted subsidiaries is less than 1.50:1.00 and (ii) extend the period during which a prepayment premium may be required for a repricing transaction until six months after the effective date of the Repricing Amendment. In connection with the execution of the Repricing Amendment, we paid arrangement fees of approximately $0.5 million, as well as certain fees and expenses of the administrative agent and the Lenders, in accordance with the terms of the Credit Agreement.

On September 29, 2017, June 30, 2017 and March 31, 2017, we made voluntary principal payments of 75.0 million Euros, 45.0 million Euros and 30.0 million Euros, respectively, on the Euro Term Loan. As of September 30, 2017, the outstanding principal amount of the Euro Term Loan was 513.3 million Euros. As of September 30, 2017, the outstanding principal amount of the Revolving Credit Facility was 10.0 million Euros.

The Credit Agreement requires the Borrower to make scheduled quarterly payments on the Euro Term Loan of 0.25% of the original principal amount of the Euro Term Loan, with any remaining principal payable at maturity. A commitment fee accrues on any unused portion of the revolving loan commitments under the Credit Agreement at a rate of 0.375% or 0.5% depending on the consolidated total gross leverage ratio at any time of determination. The Borrower is also obligated to pay other customary fees for a credit facility of this size and type.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material respect, change in control of us and the Borrower, judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all Obligations, as defined in the Credit Agreement, and may exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. We were in compliance with all covenants at September 30, 2017.

The aggregate consideration paid by us to the former Rofin stockholders in the first quarter of fiscal 2017 was approximately $904.5 million, excluding related transaction fees and expenses. We also paid $15.3 million due to the cancellation of options held by employees of Rofin. We paid $5.2 million of debt issuance costs in fiscal 2016 and incurred approximately $26.4 million of debt issuance costs in fiscal 2017. In the fourth quarter of fiscal 2016, and the first quarter of fiscal 2017, we recorded an interest charge of $1.1 million and $2.7 million, respectively, in other income (expense) in our consolidated statement of operations related to the debt financing commitment. In fiscal 2017, we made debt principal payments of $178.1 million, including voluntary prepayments of $170.7 million, recorded interest expense on the Euro Term Loan of $23.5 million, recorded $7.2 million amortization of debt issuance costs and recorded interest expense of $2.7 million for the commitment of the Euro Term loan.

In relation to our acquisition of Rofin, we paid Barclays, our financial advisor, a fee of approximately $9.5 million, $1.0 million of which was paid upon delivery of the fairness opinion in the second quarter of fiscal 2016, and the remaining portion of which was paid upon consummation of the acquisition in the first quarter of fiscal 2017; these fees were recorded as SG&A expense.

Additional sources of cash available to us were domestic and international currency lines of credit and bank credit facilities totaling $29.2 million as of September 30, 2017, of which $23.3 million was unused and available. As of September 30, 2017, we had utilized $5.9 million of the international credit facilities as guarantees in Europe.

In fiscal 2015, under plans authorized by the Board of Directors, we repurchased and retired 1,302,323 shares of outstanding common stock at an average price of $57.59 per share for a total of $75.0 million.

Our ratio of current assets to current liabilities was 3.1:1 at September 30, 2017, compared to 4.0:1 at October 1, 2016. The decrease in our ratio is primarily due to the use of cash in our acquisition of Rofin and higher income taxes payable and deferred income partially offset by the impact of Rofin's current assets and current liabilities. Our cash and cash equivalents, short-term investments and working capital are as follows (in thousands):

	Fiscal	
	2017	2016
Cash and cash equivalents	$443,066	$354,347
Short-term investments	32,510	45,606
Working capital	892,519	614,145

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 September 30, 2017 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
Operating lease payments	$ 62,706	$ 15,496	$24,615	$12,329	$ 10,266
Asset retirement obligations	6,107	—	2,526	431	3,150
Debt principal, interest and fees	723,686	28,310	55,698	54,571	585,107
Pension obligations	52,547	1,708	3,348	5,615	41,876
Purchase commitments for inventory	179,985	175,727	4,143	115	—
Purchase obligations-other	23,888	22,581	462	845	—
Total	$1,048,919	$243,822	$90,792	$73,906	$640,399

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 $35.0 million at September 30, 2017. As of September 30, 2017, we had gross unrecognized tax benefits of $50.4 million which includes penalties and interest of $2.8 million. Approximately $35.9 million has been recorded as a noncurrent liability. At this time, we are unable to make a reasonably reliable estimate of the timing of payments in individual years in connection with these tax liabilities; therefore, such amounts are not included in the above contractual obligation table.

Changes in financial condition

Cash provided by operating activities in fiscal 2017 was $384.1 million, which included net income of $207.1 million, depreciation and amortization of $111.4 million, cash provided by operating assets and liabilities of $54.8 million (primarily increases in taxes payable, deferred income and accounts payable net of increases in accounts receivable and inventories), stock-based compensation expense of $26.3 million, non-cash restructuring charges of $6.4 million, non-cash pension benefit of $5.4 million, impairment charges of $2.9 million and $1.5 million other, partially offset by increases in net deferred tax assets of $19.8 million, the $5.4 million gain on business combination, $4.9 million net cash flows used by discontinued operations and $1.6 million excess tax benefits from stock-based compensation arrangements. Cash provided by operating activities in fiscal 2016 was $105.3 million, which included net income of $87.5 million, depreciation and amortization of $34.4 million, stock-based compensation expense of $20.2 million and $0.9 million other, partially offset by cash used by operating assets and liabilities of $27.9 million (primarily increases in inventories net of increases in accrued payroll and deferred income) and increases in net deferred tax assets of $9.8 million.

Cash used investing activities in fiscal 2017 of $810.3 million included $740.5 million net of cash acquired to purchase Rofin, $61.8 million, net, used to acquire property and equipment, purchase and upgrade buildings, net of proceeds from dispositions, $7.2 million net purchases of available-for-sale securities and $0.8 million net cash flows used by discontinued operations. Cash provided by investing activities in fiscal 2016 of $103.4 million included $152.2 million net sales and maturities of available-for-sale securities partially offset by $48.8 million, net, used to acquire property and equipment, purchase and upgrade buildings, net of proceeds from dispositions.

Cash provided by financing activities in fiscal 2017 was $506.0 million, which included $539.1 million net borrowings $8.1 million generated from our employee purchase plans and $1.6 million excess tax benefits from stock-based compensation arrangements partially offset by $26.4 million of debt issuance costs, $15.7 million outflows due to net settlement of restricted stock and $0.8 million payments to minority shareholders. Cash provided by financing activities in fiscal 2016 was $17.2 million, which included $20.0 million net borrowings, and $7.8 million generated from our employee stock option and purchase plans partially offset by $5.4 million outflows due to net settlement of restricted stock and $5.2 million of debt issuance costs.

Changes in exchange rates in fiscal 2017 resulted in an increase in cash balances of $22.9 million. Changes in exchange rates in fiscal 2016 resulted in a decrease in cash balances of $2.2 million.

RECENT ACCOUNTING PRONOUNCEMENTS

See Note 2, "Significant Accounting Policies" in the Notes to Consolidated Financial Statements 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, business combinations, 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 majority of our sales are made to original equipment manufacturers (“OEMs”), distributors, representatives 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, as more fully described in Note 2, “Significant Accounting Policies—Revenue Recognition,” in our consolidated financial statements.

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, representatives and end-user customers typically do not have customer acceptance provisions and only certain of our sales to OEM customers and integrators 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 the customer accepts 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.

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.

Business Combinations

We include the results of operations of the businesses that we acquire as of the respective dates of acquisition. We allocate the fair value of the purchase price of our business acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities is recorded as goodwill. Additional information existing as of the acquisition date, but unknown to us at that time, may become known during the remainder of the measurement period, not to exceed 12 months from the acquisition date, which may result in changes to the amounts and allocations recorded.

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: OLS and ILS.

Goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired (See Note 7, "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.

In January 2017, the FASB issued amended guidance that simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the amendments in this update, an entity should perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount and recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The new standard will become effective for our fiscal year beginning October 2, 2021. We elected to early adopt the standard in the fourth quarter of fiscal 2017 for our fiscal 2017 impairment tests.

In fiscal 2017, 2016 and 2015, we conducted a qualitative assessment of the goodwill in the OLS (formerly SLS) reporting unit during the fourth quarter of each fiscal year using the opening balance sheet as of the first day of the fourth quarter and concluded that it was more likely than not that the fair value of the reporting unit exceeded its carrying amount. In assessing the qualitative factors, we considered the impact of these key factors: macroeconomic conditions, fluctuations in foreign currency, market and industry conditions, our operating and competitive environment, regulatory and political developments, the overall financial performance of our reporting units including cost factors and budgeted-to-actual revenue results. We also considered our market capitalization, stock price performance and the significant excess calculated in the prior year between estimated fair value and the carrying value of OLS. Based on our assessment, goodwill in the OLS reporting unit was not impaired as of the first day of the fourth quarter of fiscal 2017, 2016 or 2015. As such, it was not necessary to perform the goodwill impairment test at that time in any of those fiscal years.

For our ILS (former CLC) reporting unit we elected to bypass the qualitative assessment in fiscal 2017, 2016 and 2015 and proceeded directly to performing the first step of goodwill impairment. Accordingly, we performed the Step 1 test during the fourth quarter of fiscal 2017, 2016 and 2015. We determined the fair value of the reporting unit for the Step 1 test using a 50-50% weighting of the Income (discounted cash flow) approach and Market (market comparable) approach. 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. 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. Each of these two approaches captures aspects of value in each reporting unit. The Income approach captures our expected future performance, and the Market approach captures how investors view the reporting units through other competitors. We believe these valuation approaches are proven valuation techniques and methodologies for our industry and are widely accepted by investors. As neither was perceived by us to deliver any greater indication of value than the other, and neither approach individually computed a fair value less than the carrying value of the segment, we weighted each of the approaches equally. Management completed and reviewed the results of the Step 1 analysis and concluded that an impairment charge was not required as the estimated fair value of the ILS reporting unit was substantially in excess of its carrying value. Between the completion of that testing and the end of the fourth quarter of fiscal 2017, we noted no indications of impairment or triggering events for either reporting unit to cause us to review goodwill for potential impairment.

At September 30, 2017, we had $417.7 million of goodwill ($102.2 million OLS and $315.5 million in ILS), $190.0 million of purchased intangible assets and $278.9 million of property and equipment on our consolidated balance sheet.

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 or when management has deemed parts are no longer active or useful. 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 periods ranging from 24 to 36 months after such inventory is placed in service.

Warranty Reserves

We provide warranties on the majority 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 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 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 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 employee data and could differ from actual forfeitures.

See Note 12, "Employee Stock Award and Benefit Plans" in the notes to the Consolidated Financial Statements 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.

During fiscal 2017, we increased our valuation allowance on deferred tax assets by $11.1 million to $28.7 million, primarily due to the increase in California and certain state research and development tax credits and the release of R&D tax reserves for California and other states, which are not expected to be recognized. The Company had U.S. federal deferred tax assets related to research and development credits, foreign tax credits and other tax attributes that can be used to offset federal taxable income in future periods. These credit carryforwards will expire if they are not used within certain time periods. As of September 30, 2017, management determined that there is sufficient positive evidence to conclude that it is more likely than not sufficient taxable income will exist in the future allowing us to recognize these deferred tax assets.

Federal and state income taxes have not been provided 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 and state income taxes was approximately $1,150 million at fiscal 2017 year-end. The amount of federal and state income taxes that would be payable upon repatriation of such earnings is not practicably determinable. We have not, nor do we anticipate the need to, repatriate funds to the United States to satisfy domestic liquidity needs arising in the ordinary course of business.

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 interest rates were to increase immediately (whether due to changes in overall market rates or credit worthiness of the issuers of our individual securities) and uniformly by 10% from levels at fiscal 2017 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 due to their short-term maturities. 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 2017 year-end, the fair value of our available-for-sale debt securities was $69.5 million, $37.0 million of which was classified as cash and cash equivalents and $32.5 million of which was classified as short-term investments. At fiscal 2016 year-end, the fair value of our available-for-sale debt securities was $25.1 million, all of which was classified as short-term investments. There were no gross unrealized gains and losses on available-for-sale debt securities at fiscal 2017 or 2016 year-end.

We are exposed to market risks related to fluctuations in interest rates related to our Euro Term Loan. As of September 30, 2017, we owed $606.7 million on this loan with an interest rate of 3.0%. We performed a sensitivity analysis on the outstanding portion of our debt obligation as of September 30, 2017. Should the current average interest rate increase or decrease by 10%, the resulting annual increase or decrease to interest expense would be approximately $1.8 million as of September 30, 2017.

Foreign currency exchange risk

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, the Japanese Yen, the South Korean Won and the Chinese RMB. Additionally, we have operations in different countries around the world with costs incurred in other local currencies, such as British Pound Sterling, Singapore Dollars and Malaysian Ringgit. As a result, our earnings, cash flows and cash balances are exposed to fluctuations in foreign currency exchange rates. For example, because of our significant manufacturing operations in Europe, a weakening Euro is advantageous to our financial results. 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.

On occasion, we enter into currency forward exchange contracts to hedge specific anticipated foreign currency denominated transactions generally expected to occur within the next 12 months. These cash flow hedges are designated for hedge accounting treatment and gains and losses on these contracts are recorded in accumulated other comprehensive income in stockholder's equity and reclassified into earnings at the time that the related transactions being hedged are recognized in earnings. See Note 6, "Derivative Instruments and Hedging Activities".

On August 1, 2016, we purchased forward contracts totaling 670.0 million Euro, with a value date of November 30, 2016, to limit our foreign exchange risk related to the commitment of our term loan (denominated in Euros) in an amount of the Euro equivalent of $750.0 million to finance the U.S. dollar payment for the acquisition of Rofin. In the fourth quarter of fiscal 2016, we recognized an unrealized loss of $2.2 million on these hedges. Subsequent to October 1, 2016, we settled these hedges at a net gain of $3.1 million, resulting in a realized gain of $5.3 million in the first quarter of fiscal 2017. See Note 6, "Derivative Instruments and Hedging Activities" to our Consolidated Financial Statements under Item 15 of this annual report.

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. While we model currency valuations and fluctuations, these may not ultimately be accurate. 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.

At September 30, 2017, approximately $300.0 million of our cash, cash equivalents and short-term investments were held outside the U.S. in certain of our foreign operations, $263.2 million of which was denominated in currencies other than the U.S. dollar. See Note 3, "Business Combinations" in our Notes to Consolidated Financial Statements under Item 15 of this annual report for further discussion of the completion of our acquisition of Rofin and the use of cash to finance the acquisition.

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

The following table provides information about our foreign exchange forward contracts at September 30, 2017. 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. fair value represents the fair value of the contracts valued at September 30, 2017 rates.

Forward contracts to sell (buy) foreign currencies (in thousands, except contract rates):

	Average Contract Rate	U.S. Notional Contract Value	U.S. Fair Value
Non-Designated—For US Dollars:			
Euro	1.1979	$(109,641)	$1,397
Japanese Yen	109.674	$ 25,126	$ (591)
British Pound	1.2943	$ 1,711	$ 59
South Korean Won	1,123.4899	$ 28,996	$ (551)
Chinese RMB	6.5985	$ 13,744	$ (128)
Singaporean Dollar	1.3554	$ (3,668)	$ 4
Malaysian Ringgit	4.2705	$ 1,260	$ 15

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 84 of this annual report.

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

Not applicable.

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 conducted 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 September 30, 2017, utilizing the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in Internal Control-Integrated Framework (2013). Based on the assessment by management, we determined that our internal control over financial reporting was effective as of September 30, 2017. The effectiveness of our internal control over financial reporting as of September 30, 2017 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

Internal control over financial reporting is a process 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 ("GAAP"). Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness for future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the financial statements for external purposes in accordance with GAAP. Our 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 our assets;

(ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and

(iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on the financial statements.

Management, including our CEO and CFO, does not expect that our 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

In November 2016, we completed the acquisition of Rofin-Sinar Technologies, Inc. ("Rofin"). We are in the process of integrating Rofin into our systems and control environment as of September 30, 2017. We believe that we have taken the necessary steps to monitor and maintain appropriate internal control over financial reporting during this integration. Other than the impact of this business acquisition, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting during the three months ended September 30, 2017.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Coherent, Inc.
Santa Clara, CA

We have audited the internal control over financial reporting of Coherent, Inc. and its subsidiaries (collectively, the ''Company'') as of September 30, 2017, based on the criteria established in *Internal Control—Integrated Framework (2013)* 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 September 30, 2017, based on the criteria established in *Internal Control—Integrated Framework (2013)* 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 September 30, 2017, of the Company and our report dated November 28, 2017, expressed an unqualified opinion on those consolidated financial statements.

/s/ DELOITTE & TOUCHE LLP

San Jose, California

November 28, 2017

ITEM 9B. OTHER INFORMATION

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

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" and (v) our executive officers will be set forth under the caption "Our Executive Officers" in our proxy statement for use in connection with an upcoming Annual Meeting of Stockholders to be held in 2018 (the "2018 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 2018 Proxy Statement or Form 10-K/A will be filed with the SEC 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* 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

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 our 2018 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an to this Form 10-K. The 2018 Proxy Statement or Form 10-K/A will be filed with the SEC 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 2018 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an amendment to this Form 10-K.

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 2018 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an amendment to this Form 10-K.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this item is included under the proposal "Ratification of the Appointment of Deloitte & Touche LLP as Independent Registered Public Accounting Firm—Principal Accounting Fees and Services" in our 2018 Proxy Statement and is incorporated herein by reference or included in a Form 10-K/A as an amendment to this Form 10-K.

PART IV

ITEM 15. EXHIBITS, 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:

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	
2.1*	Merger Agreement, dated as of March 16, 2016, by and among the Company, Rembrandt Merger Sub Corp. and Rofin-Sinar Technologies Inc. (previously filed as Exhibit 2.1 to Form 8-K filed on March 16, 2016)
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. (Previously filed as Exhibit 3.1 to Form 8-K filed on December 12, 2012)
10.1*	Form of Indemnification Agreement. (Previously filed as Exhibit 10.18 to Form 10-K for the fiscal year ended October 2, 2010)
10.2*‡	Amended and Restated Employee Stock Purchase Plan. (Previously filed as Exhibit 10.1 to Form S-8 filed on June 12, 2012)
10.3*‡	Change of Control Severance Plan, as amended and restated effective December 11, 2014. (Previously filed as Exhibit 10.1 to Form 8-K filed on December 17, 2014)
10.4*‡	Variable Compensation Plan, as amended. (Previously filed as Exhibit 10.7 to Form 10-K for the fiscal year ended October 1, 2011)
10.5*‡	Supplementary Retirement Plan. (Previously filed as Exhibit 10.5 to Form 10-Q for the fiscal quarter ended April 1, 2006)
10.6*‡	2005 Deferred Compensation Plan. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended December 31, 2011)
10.7*‡	2011 Equity Incentive Plan. (Previously filed as Exhibit 10.1 to Form S-8 filed on May 6, 2011)
10.8*‡	2011 Equity Incentive Plan-Form of RSU Agreement for members of the Board of Directors. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended July 2, 2011)
10.9*‡	2011 Equity Incentive Plan-Form of Option Agreement for members of the Board of Directors. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended July 2, 2011)
10.10*‡	2011 Equity Incentive Plan-Form of Time-Based RSU Agreement. (Previously filed as Exhibit 10.23 to Form 10-K for the fiscal year ended October 1, 2011)
10.11*‡	2011 Equity Incentive Plan-Form of Performance RSU Agreement. (Previously filed as Exhibit 10.25 to Form 10-K for the fiscal year ended October 3, 2015)

Exhibit Numbers	
10.12‡	2011 Equity Incentive Plan-Form of Performance RSU Award Terms as adopted November 3, 2017.
10.13*‡	2011 Equity Incentive Plan-Form of Global RSU Agreement. (Previously filed as Exhibit 10.1 to Form 10-Q for the fiscal quarter ended December 31, 2016)
10.14*‡	2011 Equity Incentive Plan-Form of Global Performance RSU Agreement. (Previously filed as Exhibit 10.2 to Form 10-Q for the fiscal quarter ended December 31, 2016)
10.15*‡	Offer letter with Kevin Palatnik. (Previously filed as Exhibit 10.3 to Form 10-Q for the fiscal quarter ended January 2, 2016)
10.16*‡	Offer letter with Thomas Merk. (Previously filed as Exhibit 10.3 to Form 10-Q filed for the fiscal quarter ended December 31, 2016)
10.17*‡	Managing director agreement with Thomas Merk. (Previously filed as Exhibit 10.4 to Form 10-Q for the fiscal quarter ended December 31, 2016)
10.18*	Credit Agreement, dated as of November 7, 2016, by and among Coherent, Inc., Coherent Holding GmbH, the guarantors from time to time party thereto, the lenders from time to time party thereto, Barclays Bank PLC, as Administrative Agent and L/C Issuer, Bank of America, N.A., as L/C Issuer, and The Bank of Tokyo-Mitsubishi UJF, Ltd., as L/C Issuer. (Previously filed as Exhibit 10.1 to Form 8-K filed November 8, 2016)
10.19*	Amendment No. 1 and Waiver to Credit Agreement, dated as of May 8, 2017, by and among Coherent, Inc., Coherent Holding GmbH, the Guarantors party thereto, the Lenders party thereto and Barclays Bank PLC, as Administrative Agent. (Previously filed as Exhibit 10.1 to Form 8-K filed on May 9, 2017)
10.20*	Amendment No. 2 to Credit Agreement, dated as of July 5, 2017, by and among Coherent, Inc., Coherent Holding GmbH, the Guarantors party thereto and Barclays Bank PLC as Administrative Agent. (Previously filed as Exhibit 10.2 to Form 10-Q for the fiscal quarter ended July 1, 2017)
10.21*‡	Transition Service Agreement, dated February 22, 2016, between the Company and Helene Simonet. (Previously filed as Exhibit 10.3 to Form 10-Q for the fiscal quarter ended April 2, 2016).
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.

Exhibit Numbers	
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.
101.INS	XBRL Instance.
101.SCH	XBRL Taxonomy Extension Schema.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	XBRL Taxonomy Extension Definition Linkbase.
101.LAB	XBRL Taxonomy Extension Label Linkbase.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase.

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

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

** Furnished herewith.

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 28, 2017

By: /s/ JOHN R. AMBROSEO

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 Kevin Palatnik, 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 28, 2017 Date
/s/ KEVIN PALATNIK Kevin Palatnik (Principal Financial and Accounting Officer)	November 28, 2017 Date
/s/ JAY T. FLATLEY Jay T. Flatley (Director)	November 28, 2017 Date
/s/ PAMELA FLETCHER Pamela Fletcher (Director)	November 28, 2017 Date

/s/ SUSAN M. JAMES Susan M. James (Director)	November 28, 2017 Date
/s/ L. WILLIAM KRAUSE L. William Krause (Director)	November 28, 2017 Date
/s/ GARRY W. ROGERSON Garry W. Rogerson (Director)	November 28, 2017 Date
/s/ STEVE SKAGGS Steve Skaggs (Director)	November 28, 2017 Date
/s/ SANDEEP VIJ Sandeep Vij (Director)	November 28, 2017 Date

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 2017 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 readers 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 controls 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 September 30, 2017 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 Financial 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	/s/ KEVIN PALATNIK
John R. Ambroseo	Kevin Palatnik
President and Chief Executive Officer	*Executive Vice President and Chief Financial Officer*

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of
Coherent, Inc.
Santa Clara, CA

We have audited the accompanying consolidated balance sheets of Coherent, Inc. and its subsidiaries (collectively, the "Company") as of September 30, 2017 and October 1, 2016, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended September 30, 2017. 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 September 30, 2017 and October 1, 2016, and the results of its operations and its cash flows for each of the three years in the period ended September 30, 2017, 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 September 30, 2017, based on the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated November 28, 2017 expressed an unqualified opinion on the Company's internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

San Jose, California
November 28, 2017

COHERENT, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

(In thousands, except par value)

	September 30, 2017	October 1, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	**$ 443,066**	$ 354,347
Restricted cash	**1,097**	—
Short-term investments	**32,510**	45,606
Accounts receivable—net of allowances of $6,890 and $2,420, respectively	**305,668**	165,715
Inventories	**414,807**	212,898
Prepaid expenses and other assets	**70,268**	37,073
Assets held for sale	**44,248**	—
Total current assets	**1,311,664**	815,639
Property and equipment, net	**278,850**	127,443
Goodwill	**417,694**	101,458
Intangible assets, net	**190,027**	13,874
Non-current restricted cash	**12,924**	—
Other assets	**126,641**	102,734
Total assets	**$2,337,800**	$1,161,148
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Short-term borrowings and current portion of long-term obligations	**$ 5,078**	$ 20,000
Accounts payable	**75,860**	45,182
Income taxes payable	**103,206**	19,870
Other current liabilities	**235,001**	116,442
Total current liabilities	**419,145**	201,494
Long-term obligations	**589,001**	—
Other long-term liabilities	**166,390**	48,826
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Common stock, Authorized—500,000 shares, par value $.01 per share: Outstanding—24,631 shares and 24,324 shares, respectively	**245**	242
Additional paid-in capital	**171,403**	151,298
Accumulated other comprehensive income (loss)	**19,906**	(5,300)
Retained earnings	**971,710**	764,588
Total stockholders' equity	**1,163,264**	910,828
Total liabilities and stockholders' equity	**$2,337,800**	$1,161,148

See accompanying Notes to Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except per share data)

	Year Ended		
	September 30, 2017	October 1, 2016	October 3, 2015
Net sales	**$1,723,311**	$857,385	$802,460
Cost of sales	**973,042**	475,993	467,061
Gross profit	**750,269**	381,392	335,399
Operating expenses:			
Research and development	**119,166**	81,801	81,455
Selling, general and administrative	**292,084**	169,138	149,829
Gain on business combination	**(5,416)**	—	(1,316)
Impairment of assets held for sale	**2,916**	—	—
Impairment of investment	**—**	—	2,017
Amortization of intangible assets	**16,024**	2,839	2,667
Total operating expenses	**424,774**	253,778	234,652
Income from operations	**325,495**	127,614	100,747
Other income (expense):			
Interest income	**1,090**	1,143	595
Interest expense	**(34,362)**	(1,346)	(48)
Other—net	**9,832**	(4,515)	(1,726)
Total other expense, net	**(23,440)**	(4,718)	(1,179)
Income from continuing operations before income taxes	**302,055**	122,896	99,568
Provision for income taxes	**93,411**	35,394	23,159
Net income from continuing operations	**208,644**	87,502	76,409
Loss from discontinued operations, net of income taxes	**(1,522)**	—	—
Net income	**207,122**	87,502	76,409
Basic net income (loss) per share:			
Income per share from continuing operations	**$ 8.52**	$ 3.62	$ 3.09
Loss per share from discontinued operations, net of income taxes	**$ (0.06)**	$ —	$ —
Net income per share	**$ 8.46**	$ 3.62	$ 3.09
Diluted net income (loss) per share:			
Income per share from continuing operations	**$ 8.42**	$ 3.58	$ 3.06
Loss per share from discontinued operations, net of income taxes	**$ (0.06)**	$ —	$ —
Net income per share	**$ 8.36**	$ 3.58	$ 3.06
Shares used in computation:			
Basic	**24,487**	24,142	24,754
Diluted	**24,777**	24,415	24,992

See accompanying Notes to Consolidated Financial Statements.

COHERENT, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(In thousands)

	Year Ended		
	September 30, 2017	**October 1, 2016**	**October 3, 2015**
Net income	**$207,122**	$87,502	$ 76,409
Other comprehensive income (loss):(1)			
Translation adjustment, net of taxes(2)	**24,923**	1,731	(45,624)
Net gain (loss) on derivative instruments, net of taxes(3)	**—**	(28)	601
Changes in unrealized gains (losses) on available-for-sale securities, net of taxes(4)	**(3,330)**	2,510	828
Defined benefit pension plans, net of taxes(5)	**3,613**	—	—
Other comprehensive income (loss), net of tax	**25,206**	4,213	(44,195)
Comprehensive income	**$232,328**	$91,715	$ 32,214

(1) Reclassification adjustments were not significant during fiscal years 2017, 2016 and 2015.

(2) Tax expenses (benefits) of $(326), $279 and $(1,768) were provided on translation adjustments during fiscal 2017, 2016 and 2015, respectively.

(3) Tax expenses (benefits) of $0, $(17) and $349 were provided on net gain (loss) on derivative instruments during fiscal 2017, 2016 and 2015, respectively.

(4) Tax expenses (benefits) of $(1,876), $1,399 and $486 were provided on changes in unrealized gains (losses) on available-for-sale securities during fiscal 2017, 2016 and 2015, respectively.

(5) Tax expenses of $1,747 were provided on changes in defined benefit pension plans during fiscal 2017.

COHERENT, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

Three Years in the Period Ended September 30, 2017

(In thousands)

	Common Stock Shares	Common Stock Par Value	Add. Paid-in Capital	Accum. Other Comp. Income (Loss)	Retained Earnings	Total
Balances, September 27, 2014	**24,950**	**$248**	**$184,042**	**$ 34,682**	**$600,677**	**$ 819,649**
Common stock issued under stock plans, net of shares withheld for employee taxes	322	4	2,002	—	—	2,006
Tax impact from employee stock options	—	—	(667)	—	—	(667)
Repurchases of common stock	(1,302)	(14)	(75,013)	—	—	(75,027)
Stock-based compensation	—	—	18,243	—	—	18,243
Net income	—	—	—	—	76,409	76,409
Other comprehensive loss, net of tax	—	—	—	(44,195)	—	(44,195)
Balances, October 3, 2015	**23,970**	**$238**	**$128,607**	**$ (9,513)**	**$677,086**	**$ 796,418**
Common stock issued under stock plans, net of shares withheld for employee taxes	354	4	2,402	—	—	2,406
Stock-based compensation	—	—	20,289	—	—	20,289
Net income	—	—	—	—	87,502	87,502
Other comprehensive income, net of tax	—	—	—	4,213	—	4,213
Balances, October 1, 2016	**24,324**	**$242**	**$151,298**	**$ (5,300)**	**$764,588**	**$ 910,828**
Common stock issued under stock plans, net of shares withheld for employee taxes	307	3	(7,609)	—	—	(7,606)
Tax impact from employee stock options	—	—	1,628	—	—	1,628
Purchase of non-controlling interest	—	—	(528)	—	—	(528)
Stock-based compensation	—	—	26,614	—	—	26,614
Net income	—	—	—	—	207,122	207,122
Other comprehensive income, net of tax	—	—	—	25,206	—	25,206
Balances, September 30, 2017	**24,631**	**$245**	**$171,403**	**$ 19,906**	**$971,710**	**$1,163,264**

See accompanying Notes to Consolidated Financial Statements

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

	Year Ended		
	September 30, 2017	**October 1, 2016**	**October 3, 2015**
Cash flows from operating activities:			
Net income	**$ 207,122**	$ 87,502	$ 76,409
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**43,689**	25,905	24,815
Amortization of intangible assets	**60,556**	8,450	8,244
Gain on business combination	**(5,416)**	—	(1,316)
Impairment of assets held for sale	**2,916**	—	—
Impairment of investment	**—**	—	2,017
Deferred income taxes	**(19,752)**	(9,770)	838
Amortization of debt issuance cost	**7,202**	—	—
Stock-based compensation	**26,272**	20,157	18,232
Excess tax benefits from stock-based compensation arrangements	**(1,628)**	—	—
Non-cash restructuring charges	**6,439**	—	—
Non-cash pension benefit	**5,360**	—	—
Other non-cash expense	**1,443**	963	526
Changes in assets and liabilities, net of effect of acquisitions:			
Accounts receivable	**(52,516)**	(17,525)	(10,099)
Inventories	**(11,419)**	(55,708)	6,054
Prepaid expenses and other assets	**(4,367)**	(4,855)	(2,048)
Other long-term assets	**(2,762)**	(1,552)	802
Accounts payable	**8,276**	9,735	1,000
Income taxes payable/receivable	**66,820**	7,384	(6,759)
Other current liabilities	**47,458**	30,661	5,623
Other long-term liabilities	**3,314**	3,952	120
Cash flows from discontinued operations	**(4,891)**	—	—
Net cash provided by operating activities	**384,116**	105,299	124,458
Cash flows from investing activities:			
Purchases of property and equipment	**(63,774)**	(49,327)	(22,163)
Proceeds from dispositions of property and equipment	**1,953**	555	1,163
Purchases of available-for-sale securities	**(32,449)**	(180,842)	(312,592)
Proceeds from sales and maturities of available-for-sale securities	**25,218**	333,058	346,059
Acquisition of businesses, net of cash acquired	**(740,481)**	—	(9,300)
Cash flows from discontinued operations	**(755)**	—	—
Net cash provided by (used in) investing activities	**(810,288)**	103,444	3,167

COHERENT, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

(In thousands)

	Year Ended		
	September 30, 2017	**October 1, 2016**	**October 3, 2015**
Cash flows from financing activities:			
Short-term borrowings	**$ 8,863**	$ 54,792	$ 38,729
Repayments of short-term borrowings	**(30,819)**	(34,792)	(38,729)
Proceeds from long-term borrowings	**740,685**	—	—
Repayments of long-term borrowings	**(179,580)**	—	—
Cash paid to subsidiaries' minority shareholders	**(816)**	—	—
Issuance of common stock under employee stock option and purchase plans	**8,111**	7,849	7,308
Excess tax benefits from stock-based compensation arrangements	**1,628**	—	—
Repurchase of common stock	**—**	—	(75,027)
Net settlement of restricted common stock	**(15,717)**	(5,443)	(5,302)
Debt issuance costs	**(26,367)**	(5,202)	—
Net cash provided by (used in) financing activities	**505,988**	17,204	(73,021)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	**22,924**	(2,207)	(15,214)
Net increase in cash, cash equivalents and restricted cash	**102,740**	223,740	39,390
Cash, cash equivalents and restricted cash, beginning of year	**354,347**	130,607	91,217
Cash, cash equivalents and restricted cash, end of year	**$ 457,087**	$ 354,347	$ 130,607
Supplemental disclosure of cash flow information:			
Cash paid during the year for:			
Interest	**$ 27,160**	$ 149	$ 48
Income taxes	**$ 57,517**	$ 43,884	$ 29,816
Cash received during the year for:			
Income taxes	**$ 2,513**	$ 6,126	$ 3,297
Noncash investing and financing activities:			
Unpaid property and equipment purchases	**$ 3,197**	$ 3,492	$ 1,425
Use of previously owned equity shares in acquisition	**$ 20,685**	$ —	$ —

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same amounts shown in the consolidated statements of cash flows.

	September 30, 2017	**October 1, 2016**	**October 3, 2015**
Cash and cash equivalents	**$443,066**	**$354,347**	$130,607
Restricted cash, current	**1,097**	—	—
Restricted cash, non-current	**12,924**	—	—
Total cash, cash equivalents, and restricted cash shown in the consolidated statement of cash flows	**$457,087**	**$354,347**	$130,607

See accompanying Notes to Consolidated Financial Statements

1. DESCRIPTION OF BUSINESS

Founded in 1966, Coherent, Inc. provides lasers, laser-based technologies and laser-based system solutions in a broad range of commercial, industrial and scientific research applications. Coherent designs, manufactures, services and markets lasers 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 2017, 2016 and 2015 ended on September 30, 2017, October 1, 2016 and October 3, 2015, respectively, and are referred to in these financial statements as fiscal 2017, fiscal 2016, and fiscal 2015 for convenience. Fiscal years 2017 and 2016 include 52 weeks and fiscal year 2015 includes 53 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 direct and indirect subsidiaries (collectively, the "Company", "we", "our", "us" or "Coherent"). Intercompany balances and transactions have been eliminated.

Business Combinations

We include the results of operations of the businesses that we acquire as of the respective dates of acquisition. We allocate the fair value of the purchase price of our business acquisitions to the tangible assets acquired, liabilities assumed, and intangible assets acquired, based on their estimated fair values. The excess of the purchase price over the fair values of these identifiable assets and liabilities is recorded as goodwill.

On November 7, 2016, we acquired Rofin-Sinar Technologies, Inc. and its direct and indirect subsidiaries ("Rofin"). The significant accounting policies of Rofin have been aligned to conform to those of Coherent, and the consolidated financial statements include the results of Rofin as of the acquisition date.

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Fair Value of Financial Instruments

The carrying amounts of certain of our financial instruments including 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 and life insurance contracts related to our deferred compensation plans; trading securities are carried at fair value and life insurance contracts are carried at cash surrender values, which due to their ability to be converted to cash at that amount, approximate their fair values. Foreign exchange contracts are stated at fair value based on prevailing financial market information. Short-term and long-term debt is carried at amortized cost, which approximates its fair value based on borrowing rates currently available to us for loans with similar terms.

Cash Equivalents

All highly liquid investments with maturities of three months or less at the time of purchase are classified as cash equivalents. At fiscal 2017 year-end, cash and cash equivalents included cash, money market funds, commercial paper and U.S. agency obligations.

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 2017 year-end, the majority of our short-term investments were in U.S. Treasury and agency obligations and corporate notes and 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 September 30, 2017, we held cash and cash equivalents and short-term investments outside the U.S. in certain of our foreign operations totaling approximately $300.0 million, $263.2 million of which was denominated in currencies other than the U.S. dollar. 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. In certain instances, we may require customers to issue a letter of credit. We maintain reserves for potential credit losses. Our products are broadly distributed and there was one customer who accounted for 19.0% and 18.0% of accounts receivable at fiscal 2017 and fiscal 2016 year-end. We had another customer who accounted for 18.7% of accounts receivable at fiscal 2016 year-end.

Derivative Financial Instruments

Our primary objective for holding derivative financial instruments is to manage currency exchange rate risk. Principal currencies hedged include the Euro, South Korean Won, Japanese Yen, Chinese Renminbi, Singapore Dollar, British Pound and Malaysian Ringgit. Our derivative financial instruments are recorded at fair value, on a gross basis, and are included in other current assets and other current liabilities.

Our accounting policies for derivative financial instruments are based on whether they meet the criteria for designation as a cash flow hedge. Changes in the fair value of these cash flow hedges that are highly effective are recorded in accumulated other comprehensive income and reclassified into earnings in the same line item on the consolidated statements of operations as the impact of the

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

hedged transaction during the period in which the hedged transaction affects earnings. The ineffective portion of cash flow hedges are recognized immediately in other income and expenses. Derivatives that we designate as cash flow hedges are classified in the consolidated statements of cash flows in the same section as the underlying item, primarily within cash flows from operating activities. The changes in fair value of derivative instruments that are not designated as hedges are recognized immediately in other income (expense).

We formally document all relationships between hedging instruments and hedged items, as well as the risk management objective and strategy for undertaking various hedge transactions. This process includes linking all derivatives that are designated as cash-flow hedges to specific forecasted transactions. We also assess, both at the hedge's inception and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in cash flows of the hedged items.

Accounts Receivable Allowances

Accounts receivable allowances reflect our best estimate of probable losses inherent in our accounts receivable balances, including both losses for uncollectible accounts receivable and sales returns. 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		
	2017	**2016**	**2015**
Beginning balance	**$ 2,420**	$ 3,015	$1,155
Additions charged to expenses	**4,190**	2,084	2,716
Accruals related to acquisitions	**4,390**	—	—
Deductions from reserves	**(4,110)**	(2,679)	(856)
Ending balance	**$ 6,890**	$ 2,420	$3,015

Inventories

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

	Fiscal year-end	
	2017	**2016**
Purchased parts and assemblies	**$114,285**	$ 56,824
Work-in-process	**159,784**	88,391
Finished goods	**140,738**	67,683
Total inventories	**$414,807**	$212,898

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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		
	2017	2016	Useful Life
Land	**$ 18,550**	$ 7,523	
Buildings and improvements	**159,111**	85,908	5 - 40 years
Equipment, furniture and fixtures	**335,953**	248,741	3 - 10 years
Leasehold improvements	**51,300**	38,979	1 - 15 years
	564,914	381,151	
Accumulated depreciation and amortization	**(286,064)**	(253,708)	
Property and equipment, net	**$ 278,850**	$ 127,443	

Asset Retirement Obligations

The fair value (the present value of estimated cash flows) 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 Sunnyvale, California site. We estimated that as of fiscal 2017 year-end, gross expected future cash flows of $6.1 million would be required to fulfill these obligations.

The following table reconciles changes in our asset retirement liability for fiscal 2017 and 2016 (in thousands):

Asset retirement liability as of October 3, 2015	$2,654
Adjustment to asset retirement obligations recognized	(14)
Accretion recognized	71
Changes due to foreign currency exchange	85
Asset retirement liability as of October 1, 2016	2,796
Payment of asset retirement obligations	(175)
Adjustment to asset retirement obligations recognized	213
Additional asset retirement obligations due to acquisition	2,325
Accretion recognized	151
Changes due to foreign currency exchange	72
Asset retirement liability as of September 30, 2017	$5,382

At September 30, 2017 and October 1, 2016, the asset retirement liability is included in Other long-term liabilities on our consolidated balance sheets.

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 2017, we recorded a $2.9 million impairment charge on the net assets of several entities acquired in the acquisition of Rofin to write them down to reflect our best estimate of fair value, less costs to sell (See Note 18, "Discontinued Operations and Assets Held for Sale"). In fiscal 2016, there were no significant asset impairments recorded. In fiscal 2015, we recorded a $2.0 million impairment of our investment in SiOnyx in fiscal 2015.

Goodwill

Goodwill is tested for impairment on an annual basis and between annual tests in certain circumstances, and written down when impaired (See Note 7, "Goodwill and Intangible Assets"). In testing for impairment, we have the option to first assess qualitative factors to determine whether it is more likely than not (that is, a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount. Moreover, an entity can bypass the qualitative assessment for any reporting unit in any period and proceed directly to the impairment test, and then resume performing the qualitative assessment in any subsequent period. In both our fiscal 2017 and 2016 annual testing, we performed a qualitative assessment of the goodwill for our OLS reporting unit using the opening balance sheet as of the first day of the fourth quarter and noted no impairment. For the ILS reporting unit, we elected to bypass the qualitative assessment and proceed directly to performing the goodwill impairment test. Accordingly, we performed our impairment test using the opening balance sheet as of the first day of the fourth quarter and noted no impairment in both fiscal 2017 and 2016. (See Note 7, "Goodwill and Intangible Assets" for additional discussion of the fiscal 2017 analysis.)

Intangible Assets

Intangible assets, including acquired existing technology, customer relationships, trade name and patents are amortized on a straight-line basis over their estimated useful lives, currently 3 year to 15 years (See Note 7, "Goodwill and Intangible Assets").

Warranty Reserves

We provide warranties on the 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 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

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 2017, 2016 and 2015 were as follows (in thousands):

	Fiscal		
	2017	**2016**	**2015**
Beginning balance	**$ 15,949**	$ 15,308	$ 16,961
Additions related to current period sales	**41,365**	21,859	20,959
Warranty costs incurred in the current period	**(31,825)**	(21,393)	(21,922)
Accruals resulting from acquisitions	**14,314**	—	215
Adjustments to accruals related to foreign exchange and other	**(3,654)**	175	(905)
Ending balance	**$ 36,149**	$ 15,949	$ 15,308

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. We consider the likelihood of loss or impairment of an asset, or the incurrence of a liability, as well as our ability to reasonably estimate the amount of loss, in determining loss contingencies. An estimated loss contingency is accrued when it is probable that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated. If we determine that a loss is possible and the range of the loss can be reasonably determined, then we disclose the range of the possible loss. We regularly evaluate current information available to us to determine whether an accrual is required, an accrual should be adjusted or a range of possible loss should be disclosed.

Revenue Recognition

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

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 majority of our sales are made to original equipment manufacturers (“OEMs”), distributors, representatives 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, representatives and end-user customers typically do not have customer acceptance provisions and only certain of our sales to OEM customers and integrators 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 the customer accepts 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.

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 reduction of research and development cost. Research and development reimbursements of $2.9 million, $2.7 million and $2.5 million were offset against research and development costs in fiscal 2017, 2016 and 2015, respectively.

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.

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. Accumulated other comprehensive income (net of tax) at fiscal 2017 year-end is substantially comprised of accumulated translation adjustments of $16.3 million and deferred actuarial gains on pension plans of $3.6 million. Accumulated other comprehensive income (loss) (net of tax) at fiscal 2016 year-end is substantially comprised of accumulated translation adjustments of $(8.6) million and unrealized gain on marketable equity securities of $3.3 million.

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

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

	Fiscal		
	2017	**2016**	**2015**
Weighted average shares outstanding—basic	**24,487**	24,142	24,754
Dilutive effect of employee stock awards	**290**	273	238
Weighted average shares outstanding—diluted	**24,777**	24,415	24,992
Net income from continuing operations	**$208,644**	$87,502	$76,409
Loss from discontinued operations, net of income taxes	**(1,522)**	—	—
Net income	**$207,122**	$87,502	$76,409

There were 505, 323 and 0 potentially dilutive securities excluded from the dilutive share calculation for fiscal 2017, 2016 and 2015, respectively, as their effect was anti-dilutive.

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Stock-Based Compensation

We account for stock-based compensation using the fair value of the awards granted. We value restricted stock units using the intrinsic value method, which is based on the fair market value price on the grant date. We use a Monte Carlo simulation model to estimate the fair value of performance restricted stock units. We amortize the fair value of stock awards on a straight-line basis over the requisite service periods of the awards, which are generally the vesting periods. See Note 12, "Employee Stock Award 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 net sales in cost of sales for all periods presented. Shipping and handling fees billed to customers are included in net sales. Custom duties billed to customers are recorded in cost of sales.

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 *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 position 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 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

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

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 and state income taxes have not been provided 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 and state income taxes was approximately $1,150 million and $574 million at fiscal 2017 and 2016 year-end, respectively. The amount of federal and state income taxes that would be payable upon repatriation of such earnings is not practicably determinable. We have not, nor do we anticipate the need to, repatriate funds to the United States to satisfy domestic liquidity needs arising in the ordinary course of business.

Adoption of New Accounting Pronouncements

In January 2017, the FASB issued amended guidance that simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the existing guidance, when computing the implied fair value of goodwill under Step 2, an entity is required to perform procedures to determine the fair value at the impairment testing date of its assets and liabilities following the procedure that would be required in determining the fair value of assets acquired and liabilities assumed in a business combination. Under the amendments in this update, an entity should simply perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. An entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value. The new standard will become effective for our fiscal year 2021 which begins on October 4, 2020. We elected to early adopt the standard in the fourth quarter of fiscal 2017 and the adoption resulted in no impact on our consolidated financial statements and disclosures.

In November 2016, the FASB issued amended guidance that require a statement of cash flows to explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The new standard will become effective for our fiscal year beginning September 30, 2018. We elected to early adopt the standard in the first quarter of fiscal 2017 on a retrospective basis with no impact on our consolidated financial statements and disclosures.

In April 2015, the FASB issued amended guidance that simplifies the presentation of debt issuance costs by requiring that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amended guidance. The new standard became effective for our fiscal year beginning October 2, 2016. We elected to early adopt the standard in the second quarter of fiscal 2016 and had recorded debt issuance costs of $5.2 million in Other assets as of October 1, 2016 for the debt commitment we entered into in the second quarter of fiscal 2016 because the debt was not outstanding as of October 1, 2016. The debt issuance costs related to the term loan facility were reclassified to debt in the first quarter of fiscal 2017 when we drew down the debt.

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

Recently Issued Accounting Pronouncements

In August 2017, the FASB issued amended guidance to address current U.S. GAAP's limitation on how an entity can designate the hedged risk in certain cash flow and fair value hedging relationships. This amendment better aligns the entity's risk management activities and financial reporting for hedging relationships through changes to both designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The amendment made specific improvements on hedge accounting for risk components in hedging relationships involving nonfinancial risk and interest rate risk for cash flow hedges of forecasted purchases or sales of a nonfinancial asset, cash flow hedges of interest rate risk of variable-rate financial instruments and fair value hedges of interest rate risk. Upon adoption, for cash flow and net investment hedges existing, an entity should apply a cumulative-effect adjustment related to eliminating the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year that an entity adopts the amendment. The amended presentation and disclosure guidance is required only prospectively. The new standard will become effective for our fiscal year 2020 which begins on September 29, 2019. We are currently assessing the impact of this amended guidance.

In May 2017, the FASB issued amended guidance about which changes to the terms or conditions of a share-based payment require an entity to apply modification accounting. Under the new guidance, an entity should account for the effects of a modification unless, comparing to the original award prior to modification, the fair value, the vesting conditions and the classification as equity or as a liability of the modified award are all the same. The amendments in this update should be applied prospectively to an award modified on or after the adoption date. The new standard will become effective for our fiscal year 2019 which begins on September 30, 2018. We do not expect the adoption of this standard to have a material impact on our financial statements.

In October 2016, the FASB issued amended guidance that improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. Under the new guidance, an entity should recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The new standard will become effective in the first quarter of our fiscal 2019. We are currently assessing the impact of this amended guidance and are planning to adopt it in the first quarter of fiscal 2018.

In May 2016, accounting guidance was issued to clarify the not yet effective revenue recognition guidance issued in May 2014. This additional guidance does not change the core principle of the revenue recognition guidance issued in May 2014, rather, it provides clarification of accounting for collections of sales taxes as well as recognition of revenue (i) associated with contract modifications, (ii) for noncash consideration, and (iii) based on the collectability of the consideration from the customer. The guidance also specifies when a contract should be considered "completed" for purposes of applying the transition guidance. The effective date and transition requirements for this guidance are the same as the effective date and transition requirements for the guidance previously issued in 2014, which is effective for our fiscal year 2019 which begins on September 30, 2018. We are currently evaluating the new guidance and have not determined the impact this standard may have on our financial statements nor have we decided upon the method of adoption.

In March 2016, the FASB issued amended guidance that simplifies several aspects of the accounting for employee share-based payment transactions, including the accounting for income taxes,

2. SIGNIFICANT ACCOUNTING POLICIES (Continued)

forfeitures, and statutory tax withholding requirements, as well as classification in the statement of cash flows. Under the new guidance, an entity recognizes all excess tax benefits and tax deficiencies as income tax expense or benefit in the income statement. This change eliminates the notion of the APIC pool and significantly reduces the complexity and cost of accounting for excess tax benefits and tax deficiencies. The new standard will become effective for our fiscal year beginning October 1, 2017. Upon our adoption in the first quarter of fiscal 2018, we expect to recognize a windfall tax benefit as a cumulative effect adjustment increase to our opening retained earnings of approximately $20.0 million together with a comparable increase in deferred tax assets.

In February 2016, the FASB issued amended guidance to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The new guidance clarifies the criteria for distinguishing between a finance lease and operating lease, as well as classification between the two types of leases, which is substantially unchanged from the previous lease guidance. Further, the new guidance requires a lessee to recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-of-use asset, initially measured at the present value of the lease payments. For finance leases, a lessee should recognize interest on the lease liability separately from amortization of the right-of-use asset. For operating leases, a lessee should recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term on a generally straight-line basis. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election not to recognize lease assets and lease liabilities. The new standard will become effective for our fiscal year 2020 which begins on September 29, 2019. We are currently assessing the impact of this amended guidance and the timing of adoption.

In January 2016, the FASB issued amended guidance that revises the recognition and measurement of financial instruments. The new guidance requires equity investments (except those accounted for under the equity method of accounting, or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income, requires public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes, requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset, and eliminates the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured at amortized cost. The new standard will become effective for our fiscal year 2019 which begins on September 30, 2018. We are currently assessing the impact of this amended guidance and the timing of adoption.

3. BUSINESS COMBINATIONS

Fiscal 2017 Acquisitions

Rofin

On November 7, 2016, we completed our acquisition of Rofin pursuant to the Merger Agreement dated March 16, 2016. Rofin is one of the world's leading developers and manufacturers of high-performance industrial laser sources and laser-based solutions and components. Rofin's operating results have been included primarily in our Industrial Lasers & Systems segment. See Note 16, "Segment and Geographic Information".

3. BUSINESS COMBINATIONS (Continued)

As a condition of the acquisition, we were required to divest and hold separate Rofin's low power CO_2 laser business based in Hull, United Kingdom (the "Hull Business"), and have reported this business separately as a discontinued operation until its divestiture (See Note 18, "Discontinued Operations"). We completed the divestiture of the Hull Business on October 11, 2017, after receiving approval for the terms of the sale from the European Commission. See Note 19, "Subsequent Event".

The total purchase consideration has been allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on a valuation analysis.

The total purchase consideration allocated to net assets acquired was approximately $936.3 million and consisted of the following (in thousands):

Cash consideration to Rofin's shareholders	$904,491
Cash settlement paid for Rofin employee stock options	15,290
Total cash payments to Rofin shareholders and option holders	919,781
Add: fair value of previously owned Rofin shares	20,685
Less: post-merger stock compensation expense	(4,152)
Total purchase price to allocate	$936,314

The acquisition was an all-cash transaction at a price of $32.50 per share of Rofin common stock. We funded the payment of the aggregate consideration with a combination of our available cash on hand and the proceeds from the Euro Term Loan described in Note 9. The total payment of $15.3 million due to the cancellation of options held by employees of Rofin was allocated between total estimated merger consideration of $11.1 million and post-merger stock-based compensation expense of $4.2 million based on the portion of the total service period of the underlying options that had not been completed by the merger date.

We recognized a gain of $5.4 million in the first quarter of fiscal 2017 on the increase in fair value from the date of purchase for the shares of Rofin we owned before the acquisition.

Under the acquisition method of accounting, the total estimated acquisition consideration is allocated to the acquired tangible and intangible assets and assumed liabilities of Rofin based on their fair values as of the acquisition date. Any excess of the acquisition consideration over the fair value of assets acquired and liabilities assumed is allocated to goodwill. We expect that all such goodwill will not be deductible for tax purposes.

In the third quarter of fiscal 2017, we re-evaluated the carrying value of the Hull Business that has been presented as assets held for sale since the acquisition. As a result, approximately $33.9 million of goodwill was reallocated from the assets held for sale to the remaining business acquired as we were within the remeasurement period.

3. BUSINESS COMBINATIONS (Continued)

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

Cash, cash equivalents and short-term investments	$ 163,425
Accounts receivable	90,877
Inventory	189,869
Prepaid expenses and other assets	15,362
Assets held for sale, current	29,545
Property and equipment	125,723
Other assets	31,854
Intangible assets:	
Existing technology	169,029
In-process research and development	6,000
Backlog	5,600
Customer relationships	39,209
Trademarks	5,699
Patents	300
Goodwill	298,170
Current portion of long-term obligations	(3,633)
Current liabilities held for sale	(7,001)
Accounts payable	(21,314)
Other current liabilities	(68,242)
Long-term debt	(11,641)
Other long-term liabilities	(122,517)
Total	$ 936,314

The fair value write-up of acquired finished goods and work-in-process inventory was $26.4 million which was amortized over the expected period during which the acquired inventory was sold, or 6 months. Accordingly, for the year ended September 30, 2017, we recorded $26.4 million of incremental cost of sales associated with the fair value write-up of inventory acquired in the merger with Rofin. The fair value write-up of inventory acquired was fully amortized as of September 30, 2017.

The fair value write-up of acquired property, plant and equipment of $36.0 million will be amortized over the useful lives of the assets, ranging from 3 to 31 years. Property, plant and equipment is valued at its value-in-use, unless there was a known plan to dispose of the asset.

The acquired existing technology, backlog, trademarks and patents are being amortized on a straight-line basis, which approximates the economic use of the asset, over their estimated useful lives of 3 to 5 years, 6 months, 3 years, and 5 years, respectively. Customer relationships are being amortized on an accelerated basis utilizing free cash flows over periods ranging from 5 to 10 years. The useful lives of in-process research and development will be defined in the future upon further evaluation of the status of these applications. The fair value of the acquired intangibles was determined using the income approach. In performing these valuations, the key underlying probability-adjusted assumptions of the discounted cash flows were projected revenues, gross margin expectations and operating cost estimates. The valuations were based on the information that was available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by our management. There are inherent uncertainties and management judgment required in these determinations. This acquisition

3. BUSINESS COMBINATIONS (Continued)

resulted in a purchase price that exceeded the estimated fair value of tangible and intangible assets, which was allocated to goodwill.

We believe the amount of goodwill relative to identifiable intangible assets relates to several factors including: (1) potential buyer-specific synergies related to market opportunities for a combined product offering; and (2) potential to leverage our sales force to attract new customers and revenue and cross sell to existing customers.

In-process research and development ("IPR&D") consists of two 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. The projects have not been completed as of September 30, 2017.

We expensed $17.6 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations during the year ended September 30, 2017.

None of the goodwill was deductible for tax purposes.

The results of this acquisition were included in our consolidated operations beginning on November 7, 2016. The amount of continuing Rofin net sales and net loss from continuing operations included in our consolidated statements of operations for the year ended September 30, 2017 was approximately $434.9 million and $48.1 million, respectively.

Unaudited Pro Forma Information

The following unaudited pro forma financial information presents our combined results of operations as if the acquisition of Rofin and the related issuance of our Euro Term Loan had occurred on October 4, 2015. The unaudited pro forma financial information is not necessarily indicative of what our consolidated results of operations actually would have been had the acquisition been completed on October 4, 2015. In addition, the unaudited pro forma financial information does not attempt to project the future results of operations of the combined company. The actual results may differ significantly from the pro forma results presented here due to many factors.

In Thousands	Fiscal 2017	Fiscal 2016
Total net sales	$1,798,539	$1,339,202
Net income	$ 233,012	$ 5,813
Net income per share:		
Basic	$ 9.52	$ 0.24
Diluted	$ 9.40	$ 0.24

3. BUSINESS COMBINATIONS (Continued)

The unaudited pro forma financial information above includes the net income of Rofin's low power CO_2 laser business based in Hull, United Kingdom, which is recorded as a discontinued operation in fiscal 2017. See Note 19, "Discontinued Operations".

The unaudited pro forma financial information above reflects the following material adjustments:

- Incremental amortization and depreciation expense related to the estimated fair value of identifiable intangible assets and property, plant and equipment from the purchase price allocation.
- The exclusion of amortization of inventory step-up to its estimated fair value from fiscal 2017 and the addition of the amortization to fiscal 2016.
- The exclusion of revenue adjustments as a result of the reduction in customer deposits and deferred revenue related to its estimated fair value from fiscal 2017 and the addition of these adjustments to fiscal 2016.
- Incremental interest expense and amortization of debt issuance costs related to our Euro Term Loan and Revolving Credit Facility (as defined in Note 9, "Borrowings").
- The exclusion of acquisition costs incurred by both Coherent and Rofin from fiscal 2017 and the addition of these costs to fiscal 2016.
- The exclusion of a stock-based compensation charge related to the acceleration of Rofin options from fiscal 2017 and the addition of this charge to fiscal 2016.
- The exclusion of a gain on business combination for our previously owned shares of Rofin from fiscal 2017 and the addition of this gain to fiscal 2016.
- The exclusion of a foreign exchange gain on forward contracts related to our debt commitment and debt issuance from fiscal 2017 and the addition of this gain to fiscal 2016.
- The estimated tax impact of the above adjustments.

Fiscal 2015 Acquisitions

Raydiance, Inc.

On July 24, 2015, we acquired certain assets of Raydiance, Inc. ("Raydiance") for approximately $5.0 million, excluding transaction costs. Raydiance manufactured complete tools and lasers for ultrafast processing systems and subsystems in the precision micromachining processing market. The Raydiance assets have been included in our OEM Laser Sources segment.

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

Tangible assets	$1,048
Goodwill	1,552
Intangible assets:	
Existing technology	800
Customer lists	1,600
Total	$5,000

3. BUSINESS COMBINATIONS (Continued)

The purchase price allocated to goodwill was finalized in the first quarter of fiscal 2016, with an increase of $0.4 million and a corresponding decrease of $0.4 million to tangible assets, and has been updated from the preliminary allocation in the fourth quarter of fiscal 2015.

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.

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

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

We expensed $0.1 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations for our fiscal year 2015.

Tinsley Optics

On July 27, 2015, we acquired the assets and certain liabilities of the Tinsley Optics (“Tinsley”) business from L-3 Communications Corporation for approximately $4.3 million, excluding transaction costs. Tinsley is a specialized manufacturer of high precision optical components and subsystems sold primarily in the aerospace and defense industry. Tinsley manufactures the large form factor optics for our excimer laser annealing systems. Tinsley has been included in our OEM Laser Sources segment.

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

Tangible assets:	
Inventories	$ 2,263
Accounts receivable	2,240
Prepaid expenses and other assets	1,132
Property and equipment	2,451
Liabilities assumed	(1,702)
Deferred tax liabilities	(768)
Gain on business combination	(1,316)
Total	$ 4,300

The purchase price was lower than the fair value of net assets purchased, resulting in a gain of $1.3 million recorded as a separate line item in our consolidated statements of operations for our fiscal year 2015. The Company reassessed the recognition and measurement of identifiable assets acquired and liabilities assumed and concluded that all acquired assets and assumed liabilities were recognized and that the valuation procedures and resulting measures were appropriate.

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.

The gain from the bargain purchase is not subject to income taxation.

3. BUSINESS COMBINATIONS (Continued)

We expensed $0.4 million of acquisition-related costs as selling, general and administrative expenses in our consolidated statements of operations for our fiscal year 2015.

4. FAIR VALUES

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. We recognize transfers between levels within the fair value hierarchy, if any, at the end of each quarter. There were no transfers between levels during the periods presented. As of September 30, 2017 and October 1, 2016, we did not have any assets or liabilities valued based on Level 3 valuations.

We measure the fair value of outstanding debt obligations for disclosure purposes on a recurring basis. As of September 30, 2017, the current and long-term portion of long-term obligations of $5.1 million and $589.0 million, respectively, are reported at amortized cost. These outstanding obligations are classified as Level 2 as they are not actively traded and are valued using a discounted cash flow model that uses observable market inputs. Based on the discounted cash flow model, the fair value of the outstanding debt approximates amortized cost.

4. FAIR VALUES (Continued)

Financial assets and liabilities measured at fair value as of September 30, 2017 and October 1, 2016 are summarized below (in thousands):

	Aggregate Fair Value	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs	Aggregate Fair Value	Quoted Prices in Active Markets for Identical Assets	Significant Other Observable Inputs
	Fiscal year-end 2017			Fiscal year-end 2016		
		(Level 1)	(Level 2)		(Level 1)	(Level 2)
Assets:						
Cash equivalents:						
Money market fund deposits	$ 61,811	$61,811	$ —	$237,142	$237,142	$ —
U.S. Treasury and agency obligations(2)	14,986	—	14,986	—	—	—
Commercial paper(2)	21,991	—	21,991	—	—	—
Short-term investments:						
U.S. Treasury and agency obligations(2)	21,087	—	21,087	125	—	125
Corporate notes and obligations(2)	11,423	—	11,423	—	—	—
Commercial paper(2)	—	—	—	24,999	—	24,999
Equity securities(1)	—	—	—	20,482	20,482	—
Prepaid and other assets:						
Foreign currency contracts(3)	1,270	—	1,270	889	—	889
Money market fund deposits—Deferred comp and supplemental plan	285	285	—	—	—	—
Mutual funds—Deferred comp and supplemental plan(4)	17,585	17,585	—	14,399	14,399	—
Total	$150,438	$79,681	$70,757	$298,036	$272,023	$26,013
Liabilities:						
Other current liabilities:						
Foreign currency contracts(3)	(1,475)	—	(1,475)	(3,100)	—	(3,100)
Total	$148,963	$79,681	$69,282	$294,936	$272,023	$22,913

(1) Valuations are based upon quoted market prices.

(2) Valuations are based upon quoted market prices in active markets involving similar assets. The market inputs used to value these instruments generally consist of market yields, reported trades, broker/dealer quotes or alternative pricing sources with reasonable levels of price transparency. Pricing sources include industry standard data providers, security master files from large financial institutions, and other third party sources which are input into a distribution-curve-based algorithm to determine a daily market value. This creates a "consensus price" or a weighted average price for each security.

4. FAIR VALUES (Continued)

(3) The principal market in which we execute our foreign currency contracts is the institutional market in an over-the-counter environment with a relatively high level of price transparency. The market participants usually are large commercial banks. Our foreign currency contracts' valuation inputs are based on quoted prices and quoted pricing intervals from public data sources and do not involve management judgment. See Note 6, "Derivative Instruments and Hedging Activities".

(4) The fair value of mutual funds is determined based on quoted market prices. Securities traded on a national exchange are stated at the last reported sales price on the day of valuation; other securities traded in over-the-counter markets and listed securities for which no sale was reported on that date are stated as the last quoted bid price.

5. 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 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 2017 year-end			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	$443,066	$—	$—	$443,066
Short-term investments:				
Available-for-sale securities:				
U.S. Treasury and agency obligations	$ 21,074	$13	$—	$ 21,087
Corporate notes and obligations	11,390	34	(1)	11,423
Total short-term investments	$ 32,464	$47	$(1)	$ 32,510

	Fiscal 2016 year-end			
	Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Cash and cash equivalents	$354,347	$ —	$—	$354,347
Short-term investments:				
Available-for-sale securities:				
Commercial paper	$ 24,999	$ —	$—	$ 24,999
U.S. Treasury and agency obligations	125	—	—	125
Equity securities	15,269	5,213	—	20,482
Total short-term investments	$ 40,393	$5,213	$—	$ 45,606

None of the $1,000 in unrealized losses at September 30, 2017 were considered to be other-than-temporary impairments.

5. SHORT-TERM INVESTMENTS (Continued)

The amortized cost and estimated fair value of available-for-sale investments in debt securities as of September 30, 2017 and October 1, 2016 classified as short-term investments on our consolidated balance sheets, were as follows (in thousands):

	Fiscal year-end			
	2017		2016	
	Amortized Cost	Estimated Fair Value	Amortized Cost	Estimated Fair Value
Investments in available-for-sale debt securities due in less than one year	$30,214	$30,251	$25,124	$25,124
Investments in available-for-sale debt securities due in one to five years(1)	$ 2,250	$ 2,259	$ —	$ —

(1) Classified as short-term investments because these securities are highly liquid and can be sold at any time.

During fiscal 2017, we received proceeds totaling $0.1 million from the sale of available-for-sale securities and realized no gross gains or losses. During fiscal 2016, we received proceeds totaling $126.0 million from the sale of available-for-sale securities and realized gross gains of less than $0.1 million.

6. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

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, Japanese Yen, South Korean Won and Chinese Renminbi (RMB). 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. The credit risk amounts represent the Company's gross exposure to potential accounting loss on derivative instruments that are outstanding or unsettled if all counterparties failed to perform according to the terms of the contract, based on then-current currency rates at each respective date.

On August 1, 2016, we purchased forward contracts totaling 670.0 million Euros, with a value date of November 30, 2016, to limit our foreign exchange risk related to the commitment of our Euro Term Loan (denominated in Euros) in an amount of the Euro equivalent of $750.0 million to finance the U.S. dollar payment for our acquisition of Rofin. In the fourth quarter of fiscal 2016, we recognized an unrealized loss of $2.2 million on these forward contracts. In the first quarter of fiscal 2017, we settled these forward contracts at a net gain of $9.1 million, resulting in a realized gain of $11.3 million in the first quarter of fiscal 2017.

6. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

Non-Designated Derivatives

The outstanding notional contract and fair value asset (liability) amounts of non-designated hedge contracts, with maximum maturity of two months, are as follows (in thousands):

	U.S. Notional Contract Value		U.S. Fair Value	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Euro currency hedge contracts				
Purchase	**$109,641**	$ 91,108	**$(1,397)**	$ 162
Sell	**$ —**	$(750,454)	**$ —**	$(2,234)
South Korean Won currency hedge contracts				
Purchase	**$ —**	$ 31,248	**$ —**	$ 413
Sell	**$ (28,996)**	$ (37,929)	**$ 551**	$ (152)
Chinese RMB currency hedge contracts				
Sell	**$ (13,744)**	$ (25,237)	**$ 128**	$ (91)
Japanese Yen currency hedge contracts				
Sell	**$ (25,126)**	$ (36,450)	**$ 591**	$ (343)
Other foreign currency hedge contracts				
Purchase	**$ 3,668**	$ 6,033	**$ (4)**	$ (4)
Sell	**$ (2,971)**	$ (1,775)	**$ (74)**	$ 38

The fair value of our derivative instruments is included in prepaid expenses and other assets and in other current liabilities in our Consolidated Balance Sheets. See Note 4, "Fair Values".

During fiscal 2017, 2016, and 2015, we recognized a gain of $17.8 million, a loss of $10.5 million and a loss of $4.3 million, respectively, in other income (expense) for derivative instruments not designated as hedging instruments.

Designated Derivatives

Cash flow hedges related to anticipated transactions are designated and documented at the inception of the hedge when we enter into contracts for specific future transactions. Cash flow hedges are evaluated for effectiveness quarterly. The effective portion of the gain or loss on these hedges is reported as a component of OCI in stockholder's equity and is reclassified into earnings when the underlying transaction affects earnings. We had no cash flow hedges outstanding at September 30, 2017 or October 1, 2016. Changes in the fair value of currency forward contracts due to changes in time value are excluded from the assessment of effectiveness and recognized in other income (expense) as incurred. We classify the cash flows from the foreign exchange forward contracts that are accounted for as cash flow hedges in the same section as the underlying item, primarily within cash flows from operating activities since we do not designate our cash flow hedges as investing or financing activities.

In fiscal 2014, we had entered into certain derivative forward contracts to sell Japanese Yen and buy Euro to hedge revenue exposures related to our photonics-based solutions in Asia. In order to facilitate the hedge, we transacted with counterparties in the U.S. directly and then allocated the hedge contracts to our affiliates through a back-to-back relationship with our German subsidiary. The German

6. DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES (Continued)

subsidiary designated these hedge contracts as cash flow hedges under ASC 815. The hedges were settled in fiscal 2016.

During fiscal 2017, we did not have any activities related to designated cash flow hedges. During fiscal 2016, we recorded losses in OCI and in other income (expense) and reclassified losses from OCI into revenue related to the accounting for derivatives designated as cash flow hedges. These losses and reclassifications were not material. In fiscal 2015, we recorded a gain of $0.6 million in OCI and a $0.1 million loss in other income (expense) as well as reclassified $0.2 million of gains from OCI into revenue and $1.7 million of losses into cost of sales related to the accounting for derivatives designated as cash flow hedges.

During the fiscal year ended October 1, 2016, we recognized a loss of less than $0.1 million in other income (expense) as ineffectiveness related to a portion of an anticipated hedged transaction that failed to occur within the original hedge period plus two months. The remainder of the hedged transaction occurred as expected and effective amounts were recognized in revenue or cost of sales.

The amounts that will be reclassified from OCI to earnings are generally offset by the recognition of the hedged transactions (e.g., anticipated cost of sales) in earnings, thereby achieving the realization of prices contemplated by the underlying risk management strategies, and will vary from the expected amounts presented above as a result of changes in foreign exchange rates.

Master Netting Arrangements

To mitigate credit risk in derivative transactions, we enter into master netting arrangements that allow each counterparty in the arrangements to net settle amounts of multiple and separate derivative transactions under certain conditions. We present the fair value of derivative assets and liabilities within the our consolidated balance sheet on a gross basis even when derivative transactions are subject to master netting arrangements and may otherwise qualify for net presentation. The impact of netting derivative assets and liabilities is not material to our financial position for any of the periods presented. Our derivative contracts do not contain any credit risk related contingent features and do not require collateral or other security to be furnished by us or the counterparties.

7. GOODWILL AND INTANGIBLE ASSETS

Goodwill is tested for impairment on an annual basis and between annual tests if events or circumstances indicate that an impairment loss may have occurred, and we write down these assets when impaired. We 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 quarter, with any resulting impairment recorded in the fourth quarter of the fiscal year.

As a result of the acquisition of Rofin in the first quarter of fiscal 2017, we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company: OEM Laser Sources (“OLS”) and Industrial Lasers & Systems (“ILS”). This segment reorganization was based upon the organizational structure of the combined company and how the chief operating decision maker (“CODM”) receives and utilizes information provided to allocate resources and make decisions. In our fiscal 2017 annual testing, we performed a qualitative assessment of the goodwill for our OLS reporting unit during the fourth quarter of fiscal 2017 using the opening balance sheet as of the first day of the fourth quarter

7. GOODWILL AND INTANGIBLE ASSETS (Continued)

and concluded that it was more likely than not that the fair value of the reporting unit exceeded its carrying amount. In assessing the qualitative factors, we considered the impact of these key factors: macroeconomic conditions, fluctuations in foreign currency, market and industry conditions, our operating and competitive environment, regulatory and political developments, the overall financial performance of the reporting unit including cost factors and budgeted-to-actual revenue results. We also considered our market capitalization, stock price performance and the significant excess between the estimated fair value and carrying value of the OLS reporting unit. Based on our assessment, goodwill in the OLS reporting unit was not impaired as of the first day of the fourth quarter of fiscal 2017. As such, it was not necessary to perform the goodwill impairment test at that time. For the ILS reporting unit, we elected to bypass the qualitative assessment and proceed directly to performing the goodwill impairment test. We performed our test using the opening balance sheet as of the first day of the fourth quarter and noted no impairment. We determined the fair value of the ILS reporting unit for the test using a 50-50% weighting of the Income (discounted cash flow) approach and Market (market comparable) approach. Management completed and reviewed the results of the impairment analysis and concluded that an impairment charge was not required as the estimated fair value of the ILS reporting unit was significantly in excess of its carrying value. Between the completion of that testing and the end of the fourth quarter of fiscal 2017, we noted no indications of impairment or triggering events with either reporting unit to cause us to review goodwill for potential impairment.

The changes in the carrying amount of goodwill by segment for fiscal 2017 and 2016 are as follows (in thousands):

	Industrial Lasers & Systems(1)	OEM Laser Sources(2)	Total
Balance as of October 3, 2015	$ 4,443	$ 97,374	$101,817
Additions (see Note 3)	—	434	434
Translation adjustments and other	—	(793)	(793)
Balance as of October 1, 2016	4,443	97,015	101,458
Additions (see Note 3)	296,502	1,668	298,170
Translation adjustments and other	14,571	3,495	18,066
Balance as of September 30, 2017	$315,516	$102,178	$417,694

(1) Gross amount of goodwill for our ILS segment was $328.5 million at September 30, 2017 and $17.4 million at October 1, 2016, respectively. At both September 30, 2017 and October 1, 2016, the accumulated impairment loss for the ILS reporting unit was $13.0 million reflecting an impairment charge in fiscal 2009.

(2) Gross amount of goodwill for our OLS segment was $110.9 million and $105.7 million at September 30, 2017 and October 1, 2016, respectively. At both September 30, 2017 and October 1, 2016, the accumulated impairment loss for the OLS reporting unit was $8.7 million reflecting impairment charges in fiscal 2003 and fiscal 2009.

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 assets are impaired based on comparison to the undiscounted

7. GOODWILL AND INTANGIBLE ASSETS (Continued)

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.

In fiscal 2016, we did not have any impairment of intangible assets as a result of the impairment analysis.

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

	Fiscal year-end 2017			Fiscal year-end 2016		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Existing technology	$208,341	$(66,793)	$141,548	$70,664	$(61,133)	$ 9,531
Patents	330	(58)	272	—	—	—
Customer lists	51,687	(14,259)	37,428	15,968	(11,658)	4,310
Trade name	6,171	(1,824)	4,347	384	(351)	33
In-process research and development	6,432	—	6,432	—	—	—
Total	$272,961	$(82,934)	$190,027	$87,016	$(73,142)	$13,874

For accounting purposes, when an intangible asset is fully amortized, it is removed from the disclosure schedule.

The weighted average remaining amortization periods for existing technology, patents, customer lists and trade names are approximately 3.2 years, 4.1 years, 7.4 years and 2.1 years, respectively. Amortization expense for intangible assets during fiscal years 2017, 2016, and 2015 was $60.6 million, $8.5 million and $8.2 million, respectively. The change in accumulated amortization also includes $4.8 million and $0.4 million of foreign exchange impact for fiscal 2017 and fiscal 2016, respectively.

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

	Estimated Amortization Expense
2018	$ 56,655
2019	53,238
2020	45,799
2021	14,141
2022	3,695
Thereafter	10,067
Total (Excluding IPR&D)	$183,595

8. BALANCE SHEET DETAILS

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

	Fiscal year-end	
	2017	**2016**
Prepaid and refundable income taxes	**$28,712**	$12,415
Other taxes receivable	**15,327**	10,538
Prepaid expenses and other assets	**26,229**	14,120
Total prepaid expenses and other assets	**$70,268**	$37,073

Other assets consist of the following (in thousands):

	Fiscal year-end	
	2017	**2016**
Assets related to deferred compensation arrangements (see Note 12)	**$ 31,008**	$ 26,356
Deferred tax assets	**82,691**	67,157
Other assets	**12,942**	9,221
Total other assets	**$126,641**	$102,734

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

	Fiscal year-end	
	2017	**2016**
Accrued payroll and benefits	**$ 72,327**	$ 47,506
Accrued expenses and other	**34,215**	18,356
Warranty reserve (see Note 2)	**36,149**	15,949
Current liabilities held for sale (see Note 19)	**7,021**	—
Customer deposits	**20,052**	1,597
Deferred revenue	**65,237**	33,034
Total other current liabilities	**$235,001**	$116,442

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

	Fiscal year-end	
	2017	**2016**
Long-term taxes payable	**$ 35,866**	$ 2,951
Deferred compensation (see Note 12)	**34,160**	28,313
Deferred tax liabilities	**45,373**	1,468
Deferred revenue	**4,765**	4,069
Asset retirement obligations liability (see Note 2)	**5,382**	2,796
Defined benefit plan liabilities (see Note 13)	**39,454**	8,123
Other long-term liabilities	**1,390**	1,106
Total other long-term liabilities	**$166,390**	$48,826

9. BORROWINGS

On November 4, 2016, we repaid the outstanding balance, plus accrued interest, on our former domestic line of credit and terminated the $50.0 million credit facility with Union Bank of California. We assumed two term loans having an aggregated principal amount of $15.3 million as of November 7, 2016 and several lines of credit totaling approximately $18.1 million with the completion of the Rofin acquisition.

On November 7, 2016 (the "Closing Date"), we entered into a Credit Agreement by and among us, Coherent Holding BV & Co. K.G. (formerly Coherent Holding GmbH), as borrower (the "Borrower"), and certain of our direct and indirect subsidiaries from time to time party thereto, as guarantors, the lenders from time to time party thereto, Barclays Bank PLC, as administrative agent and an L/C Issuer, Bank of America, N.A., as an L/C Issuer, and MUFG Union Bank, N.A., as an L/C Issuer (the "Credit Agreement"). The Credit Agreement provided for a 670.0 million Euro senior secured term loan facility (the "Euro Term Loan") and a $100.0 million senior secured revolving credit facility ("Revolving Credit Facility") with a $30.0 million letter of credit sublimit and a $10.0 million swing line sublimit. The Borrower may increase the aggregate revolving commitments or borrow incremental term loans in an aggregate principal amount not to exceed the sum of $150.0 million and an amount that would not cause the senior secured net leverage ratio to be greater than 2.75 to 1.00, subject to certain conditions, including obtaining additional commitments from the lenders then party to the Credit Agreement or new lenders. On November 7, 2016, the Borrower borrowed the full 670.0 million Euros under the Euro Term Loan and its proceeds were used to finance the acquisition of Rofin and pay related fees and expenses. On November 7, 2016, we also used 10.0 million Euros of the capacity under the Revolving Credit Facility for the issuance of a letter of credit.

The terms of the Credit Agreement require the Borrower to prepay the term loans in certain circumstances, including from excess cash flow beyond a threshold amount, from the receipt of proceeds from certain dispositions or from the incurrence of certain indebtedness, and from extraordinary receipts resulting in net cash proceeds in excess of $10.0 million in any fiscal year. The Borrower has the right to prepay loans under the Credit Agreement in whole or in part at any time without premium or penalty, subject to customary breakage costs. Revolving loans may be borrowed, repaid and reborrowed until the fifth anniversary of the Closing Date, at which time all outstanding revolving loans must be repaid. The Euro Term Loan matures on the seventh anniversary of the Closing Date, at which time all outstanding principal and accrued and unpaid interest on the Euro Term Loan must be repaid.

On September 29, 2017, June 30, 2017 and March 31, 2017, we made voluntary principal payments of 75.0 million Euros, 45.0 million Euros and 30.0 million Euros, respectively, on the Euro Term Loan. As of September 30, 2017, the outstanding principal amount of the Euro Term Loan was 513.3 million Euros. As of September 30, 2017, the outstanding principal amount of the Revolving Credit Facility was 10.0 million Euro.

Loans under the Credit Agreement bear interest, at the Borrower's option, at a rate equal to either (i)(x) in the case of calculations with respect to U.S. Dollars or certain other alternative currencies, the London interbank offered rate (the "LIBOR") or (y) in the case of calculations with respect to the Euro, the euro interbank offered rate ("EURIBOR" and, together with LIBOR, the "Eurocurrency Rate") or (ii) a base rate (the "Base Rate") equal to the highest of (x) the federal funds rate, plus 0.50%, (y) the prime rate then in effect and (z) the Eurocurrency Rate for loans denominated in U.S. dollars applicable to a one-month interest period, plus 1.0%, in each case, plus an

9. BORROWINGS (Continued)

applicable margin. The applicable margin for Euro Term Loan borrowed as Eurocurrency Rate loans, is 3.50% initially, and following the first anniversary of the Closing Date ranges from 3.50% to 3.00% depending on the consolidated total gross leverage ratio at the time of determination. For Euro Term Loan borrowed as Base Rate loans, the applicable margin initially is 2.50%, and following the first anniversary of the Closing Date ranges from 2.50% to 2.00% depending upon the consolidated total gross leverage ratio at the time of determination. The applicable margin for revolving loans borrowed as Eurocurrency Rate loans, ranges from 4.25% to 3.75%, and for revolving loans borrowed as Base Rate loans, ranges from 3.25% to 2.75%, in each case, based on the consolidated total gross leverage ratio at the time of determination. Interest on Base Rate Loans is payable quarterly in arrears. Interest on Eurocurrency Rate loans is payable at the end of the applicable interest period (or at three month intervals if the interest period exceeds three months). Interest periods for Eurocurrency Rate loans may be, at the Borrower's option, one, two, three or six months.

On May 8, 2017, we entered into Amendment No. 1 and Waiver (the "Repricing Amendment") to the Credit Agreement to, among other things, (i) reduce the applicable interest rate margins with respect to the Euro Term Loans to 1.25% for Euro Term Loans maintained as Base Rate loans and 2.25% for Euro Term Loans maintained as Eurocurrency Rate loans, with stepdowns to 1.00% and 2.00%, respectively, available after May 8, 2018 if the consolidated total gross leverage ratio for Coherent and its restricted subsidiaries is less than 1.50:1.00 and (ii) extend the period during which a prepayment premium may be required for a repricing transaction until six months after the effective date of the Repricing Amendment. In connection with the execution of the Repricing Amendment, we paid arrangement fees of approximately $0.5 million, as well as certain fees and expenses of the administrative agent and the lenders, in accordance with the terms of the Credit Agreement.

The Credit Agreement requires the Borrower to make scheduled quarterly payments on the Euro Term Loan of 0.25% of the original principal amount of the Euro Term Loan, with any remaining principal payable at maturity. A commitment fee accrues on any unused portion of the revolving loan commitments under the Credit Agreement at a rate of 0.375% or 0.5% depending on the consolidated total gross leverage ratio at any time of determination. The Borrower is also obligated to pay other customary fees for a credit facility of this size and type.

On the Closing Date, we and certain of our direct and indirect subsidiaries, as guarantors, provided an unconditional guaranty of all obligations of the Borrower and the other loan parties arising under the Credit Agreement, the other loan documents and under swap contracts and treasury management agreements with the lenders or their affiliates (with certain limited exceptions). The Borrower and the guarantors have also granted security interests in substantially all of their assets to secure such obligations.

The Credit Agreement contains customary affirmative covenants, including covenants regarding the payment of taxes and other obligations, maintenance of insurance, reporting requirements and compliance with applicable laws and regulations, and negative covenants, including covenants limiting the ability of us and our subsidiaries to, among other things, incur debt, grant liens, make investments, make certain restricted payments, transact with affiliates, and sell assets. The Credit Agreement also requires us and our subsidiaries to maintain a senior secured net leverage ratio as of the last day of each fiscal quarter of less of than or equal to 3.50 to 1.00. The Credit Agreement contains customary events of default that include, among other things, payment defaults, cross defaults with certain other indebtedness, violation of covenants, inaccuracy of representations and warranties in any material

9. BORROWINGS (Continued)

respect, change in control of us and the Borrower, judgment defaults, and bankruptcy and insolvency events. If an event of default exists, the lenders may require the immediate payment of all Obligations, as defined in the Credit Agreement, and may exercise certain other rights and remedies provided for under the Credit Agreement, the other loan documents and applicable law. The acceleration of such obligations is automatic upon the occurrence of a bankruptcy and insolvency event of default. We were in compliance with all covenants at September 30, 2017.

We incurred $28.5 million of debt issuance costs related to the Euro Term Loan and $0.5 million of debt issuance costs to the original lenders related to the Repricing Amendment, which are included in short-term borrowings and current portion of long-term obligations and long-term obligations in the consolidated balance sheets and will be amortized to interest expense over the seven year life of the Euro Term Loan using the effective interest method, adjusted to accelerate amortization related to voluntary prepayments. We incurred $2.3 million of debt issuance costs in connection with the Revolving Credit Facility which were capitalized and included in prepaid expenses and other assets and other assets in the consolidated balance sheets and will be amortized to interest expense using the straight-line method over the contractual term of five years of the Revolving Credit Facility.

For the year ended September 30, 2017, we recognized interest expense of $23.5 million and amortization of debt issuance costs of $7.2 million in relation to the Euro Term Loan.

Additional sources of cash available to us were international currency lines of credit and bank credit facilities totaling $29.2 million as of September 30, 2017, of which $23.3 million was unused and available. As of September 30, 2017, we had utilized $5.9 million of the international credit facilities as guarantees in Europe.

Short-term borrowings and current portion of long-term obligations consist of the following (in thousands):

	September 30, 2017	October 1, 2016
Current portion of Euro Term Loan(1)	**$3,230**	$ —
1.3% Term loan due 2024	**1,477**	—
1.0% State of Connecticut term loan due 2023	**371**	—
Line of credit borrowings	**—**	20,000
Total short-term borrowings and current portion of long-term obligations	**$5,078**	$20,000

(1) Net of debt issuance costs of $4.7 million.

Long-term obligations consist of the following (in thousands):

	September 30, 2017	October 1, 2016
Euro Term Loan due 2024(1)	**$578,356**	$—
1.3% Term loan due 2024	**8,865**	—
1.0% State of Connecticut term loan due 2023	**1,780**	—
Total long-term obligations	**$589,001**	$—

(1) Net of debt issuance costs of $20.4 million.

9. BORROWINGS (Continued)

Contractual maturities of our debt obligations as of September 30, 2017 are as follows (in thousands):

	Amount
2018	$ 9,767
2019	9,767
2020	9,768
2021	9,768
2022	9,768
Thereafter	570,376
Total	$619,214

10. COMMITMENTS AND CONTINGENCIES

Indemnifications

In the normal course of business, we enter into agreements that contain a variety of representations and warranties and provide for general indemnification. Exposure under these agreements is unknown because claims may be made against us in the future and we may record charges in the future as a result of these indemnification obligations. As of September 30, 2017 we did not have any material indemnification claims that were probable or reasonably possible.

Commitments

We lease several of our facilities under operating leases and recognize rent expense on a straight-line basis over the life of the leases.

Future minimum payments under our non-cancelable operating leases at September 30, 2017 are as follows (in thousands):

	Amount
2018	$15,496
2019	14,429
2020	10,186
2021	7,079
2022	5,250
Thereafter through 2027	10,266
Total	$62,706

Rent expense was $16.5 million, $12.6 million and $11.0 million in fiscal 2017, 2016 and 2015, respectively.

As of September 30, 2017, we had total purchase commitments for inventory of approximately $180.0 million and purchase obligations for fixed assets and services of $23.9 million compared to $73.7 million of purchase commitments for inventory and $12.2 million of purchase obligations for fixed assets and services at October 1, 2016. The inventory increase was primarily due to the acquisition of Rofin in the first quarter of fiscal 2017 and higher commitments to support the higher shipments of

10. COMMITMENTS AND CONTINGENCIES (Continued)

large ELA tools used in the flat panel display market. The fixed assets and services increase was primarily due to expansion of our manufacturing capacity in Göttingen, Germany, the upgrade of certain of our production facilities in California and the acquisition of Rofin.

Contingencies

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. On May 14, 2013, IMRA America ("Imra") filed a complaint for patent infringement against two of our subsidiaries in the Regional Court of Düsseldorf, Germany, captioned In re IMRA America Inc. versus Coherent Kaiserslautern GmbH et. al. 4b O 38/13. The complaint alleges that the use of certain of the Company's lasers infringes upon EP Patent No. 754,103, entitled "Method For Controlling Configuration of Laser Induced Breakdown and Ablation," issued November 5, 1997. The patent, now expired in all jurisdictions, is owned by the University of Michigan and licensed to Imra. The complaint seeks unspecified compensatory damages, the cost of court proceedings and seeks to permanently enjoin the Company from infringing the patent in the future. Following the filing of the infringement suit, our subsidiaries filed a separate nullity action with the Federal Patent Court in Munich, Germany requesting that the court hold that the Patent was invalid based on prior art. On October 1, 2015, the Federal Patent Court ruled that the German portion of the Patent was invalid. Imra has appealed this decision to the Federal Court of Justice, the highest civil jurisdiction court in Germany. The infringement action is currently stayed pending the outcome of such appeal. Management has made an accrual with respect to this matter and has determined, based on its current knowledge, that the amount or range of reasonably possible losses in excess of the amounts already accrued is not reasonably estimable. Although we do not expect that such legal claims and litigation will ultimately have a material adverse effect on our consolidated financial position, results of operations or cash flows, an adverse result in one or more matters could negatively affect our results in the period in which they occur.

The United States and many foreign governments impose tariffs and duties on the import and export of certain products we sell. From time to time our duty calculations and payments are audited by government agencies. During the second quarter of fiscal 2016, we concluded an audit in South Korea for customs duties and value added tax for the period March 2009 to March 2014. We paid $1.6 million related to this matter in the second quarter of fiscal 2016 and have no remaining accrual at October 1, 2016.

On November 7, 2016, we entered into a Credit Agreement, which was amended on May 8, 2017. See Note 9, "Borrowings" for further discussion of the issuance of the financing.

11. STOCK REPURCHASES

On July 25, 2014, our Board of Directors authorized a buyback program whereby we were authorized to repurchase up to $25.0 million of our common stock from time to time through July 31, 2015. During the first and second quarters of fiscal 2015, we repurchased and retired 434,114 shares of outstanding common stock under this plan at an average price of $57.59 per share for a total of $25.0 million.

On January 21, 2015, our Board of Directors authorized an additional stock repurchase program to repurchase up to $25.0 million of our outstanding common stock from time to time through

11. STOCK REPURCHASES (Continued)

January 31, 2016. During the fourth quarter of fiscal 2015, we repurchased and retired 430,675 shares of outstanding common stock under this plan at an average price of $58.05 per share for a total of $25.0 million.

On August 25, 2015, our Board of Directors authorized an additional stock repurchase program to repurchase up to $25.0 million of our outstanding common stock from time to time through August 31, 2016. During the fourth quarter of fiscal 2015, we repurchased and retired 437,534 shares of outstanding common stock under this plan at an average price of $57.14 per share for a total of $25.0 million.

12. EMPLOYEE STOCK AWARD AND BENEFIT PLANS

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, we choose 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	
	2017	**2016**
Cash surrender value of life insurance contracts	**$13,995**	$13,636
Fair value of mutual and money market funds	**17,870**	14,399
Total assets	**$31,865**	$28,035
Total assets, included in:		
Prepaid expenses and other assets	**$ 856**	$ 1,679
Other assets	**31,009**	26,356
Total assets	**$31,865**	$28,035

	Fiscal year-end	
	2017	**2016**
Total deferred compensation liability, included in:		
Other current liabilities	**$ 856**	$ 1,679
Other long-term liabilities	**34,160**	28,313
Total deferred compensation liability	**$35,016**	$29,992

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 $5.0 million (including a $1.3 million death benefit) in fiscal year 2017, a net gain of $1.7 million in fiscal year 2016 and a net loss of $0.4 million in fiscal year 2015. Changes in the obligation to plan participants are recorded as a component of operating expenses and cost of sales; such amounts were a loss of $3.9 million in fiscal year 2017, a loss of $2.1 million in fiscal year 2016 and income of $0.2 million in fiscal year 2015.

12. EMPLOYEE STOCK AWARD AND BENEFIT PLANS (Continued)

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 subject to IRS limitations. Employees become eligible for participation and Company matching contributions on their first day of employment. The Company's contributions (net of forfeitures) during fiscal 2017, 2016, and 2015 were $4.8 million, $4.1 million and $3.6 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 2017, 2016 and 2015, a total of 95,678 shares, 141,340 shares and 132,004 shares, respectively, were purchased by and distributed to employees at an average price of $81.82, $46.81 and $51.34 per share, respectively. At fiscal 2017 year-end, we had 424,882 shares of our common stock reserved for future issuance under the plan.

Stock Award Plans

We maintain a stock plan for which employees, service providers and non-employee directors are eligible participants. This plan, the 2011 Equity Incentive Plan (the "2011 Plan"), provides for a number of different equity-based grants, including options, time-based restricted stock units and performance restricted stock units. Under the 2011 Plan, Coherent may grant options and awards (time-based restricted stock units and performance restricted stock units) to purchase up to 6,747,691 shares of common stock, of which 4,950,603 shares remained available for grant at fiscal 2017 year-end. At fiscal 2017 year-end, all outstanding stock options and restricted stock units have been issued under plans approved by our shareholders.

Historically option grants to employees vested over the four years from the original grant date. Since adoption of the 2011 Plan, no stock options have been granted to employees. Some vested options made to one non-employee director under a prior stock plan remain outstanding.

Non-employee directors are automatically granted time-based restricted stock units upon first joining the Board of Directors and then upon reelection. New non-employee directors initially receive an award of restricted stock units valued at approximately $225,000 which vest over a two year period. The annual grant for non-employee directors is a value of approximately $225,000 in 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 typically subject to vesting restrictions—either time-based or market-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 or service to the Company terminates prior to the release of restrictions and cannot be transferred.

12. EMPLOYEE STOCK AWARD AND BENEFIT PLANS (Continued)

- The service based restricted stock awards generally vest within 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 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 based on the performance of the Company's total shareholder returns (as defined in the plan) compared with the performance of the Russell 1000 Index.

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 per tranche over the respective requisite service period of the awards.

Determining Fair Value

Employee Stock Purchase Plan

Valuation and amortization method—We estimate the fair value of employee stock purchase shares using the Black-Scholes-Merton option-pricing formula. This fair value is then amortized on a straight-line basis over the purchase period.

Expected Term—The expected term represents the period of our employee stock purchase plan.

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 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.

The fair values of shares purchased under the employee stock purchase plan for fiscal 2017, 2016 and 2015 were estimated using the following weighted-average assumptions:

	Employee Stock Purchase Plans		
	Fiscal		
	2017	2016	2015
Expected life in years	**0.5**	0.5	0.5
Expected volatility	**33.0%**	35.0%	28.6%
Risk-free interest rate	**0.7%**	0.3%	0.1%
Weighted average fair value per share	**$39.40**	$18.59	$14.39

Time-Based Restricted Stock Units

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

12. EMPLOYEE STOCK AWARD AND BENEFIT PLANS (Continued)

Performance Restricted Stock Units

We grant 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 our common stock to be issued after the applicable award vesting period. The final number of units awarded, if any, for these performance grants will be determined as of the vesting dates, based upon our total shareholder return over the performance period compared to the Russell 1000 Index and could range from no units to a maximum of twice the initial award units. The weighted average fair value for these performance units was determined using a Monte Carlo simulation model incorporating the following weighted average assumptions:

	Fiscal		
	2017	**2016**	**2015**
Risk-free interest rate	**1.3%**	1.2%	1.0%
Volatility	**31.0%**	27.0%	28.7%
Weighted average fair value	**$163.17**	$74.48	$70.57

We recognize the estimated cost of these awards, as determined under the simulation model, over the related service period of approximately 3 years, 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 and related tax benefits included in the Consolidated Statements of Operations for fiscal 2017, 2016 and 2015 (in thousands):

	Fiscal		
	2017	**2016**	**2015**
Cost of sales	**$ 3,541**	$ 2,558	$ 2,530
Research and development	**2,973**	2,268	1,946
Selling, general and administrative	**23,911**	15,331	13,756
Income tax benefit	**(7,073)**	(4,896)	(4,247)
	$23,352	$15,261	$13,985

As a result of our acquisition of Rofin on November 7, 2016, we made a payment of $15.3 million due to the cancellation of options held by employees of Rofin. The payment was allocated between total estimated merger consideration of $11.1 million and post-merger stock-based compensation expense of $4.2 million, based on the portion of the total service period of the underlying options that have not been completed by the merger date.

Total stock-based compensation cost capitalized as part of inventory during fiscal 2017 was $3.6 million; $3.3 million was amortized into income during fiscal 2017, which includes amounts capitalized in fiscal 2017 and amounts carried over from fiscal 2016. Total stock-based compensation cost capitalized as part of inventory during fiscal 2016 was $2.7 million; $2.6 million was amortized into income during fiscal 2016, which includes amounts capitalized in fiscal 2016 and amounts carried over from fiscal 2015.

12. EMPLOYEE STOCK AWARD AND BENEFIT PLANS (Continued)

At fiscal 2017 year-end, the total compensation cost related to unvested stock-based awards granted to employees under our stock plans but not yet recognized was approximately $31.7 million. We do not estimate forfeitures. This cost will be amortized on a straight-line basis over a weighted-average period of approximately 1.5 years.

The stock option exercise tax benefits are reported in the statement of cash flows. The tax benefits result from tax deductions in excess of the stock-based compensation cost recognized and are determined on a grant-by-grant basis. During fiscal 2017, we recorded approximately $1.6 million of excess tax benefits as cash flows from financing activities. In fiscal 2016 and 2015, we did not generate any excess tax benefits as cash flows from financing activities.

Stock Awards Activity

At fiscal 2017, 2016 and 2015 year-end, we had 24,000, 33,500 and 86,000 shares subject to vested stock options outstanding. The vested stock options at fiscal 2017 are held by one non-employee director.

The following table summarizes the activity of our time-based and performance restricted stock units for fiscal 2017, 2016 and 2015 (in thousands, except per share amounts):

	Time Based Restricted Stock Units		Performance Restricted Stock Units	
	Number of Shares	Weighted Average Grant Date Fair Value	Number of Shares	Weighted Average Grant Date Fair Value
Nonvested stock at September 27, 2014	390	$ 58.66	229	$ 61.46
Granted	237	64.84	51	70.57
Vested(1)	(219)	53.62	(38)	53.46
Forfeited	(14)	59.06	(43)	53.46
Nonvested stock at October 3, 2015	394	$ 65.17	199	$ 67.09
Granted	270	64.42	65	74.48
Vested(1)	(192)	61.11	(57)	48.48
Forfeited	(13)	63.89	(38)	48.48
Nonvested stock at October 1, 2016	459	$ 66.47	169	$ 74.10
Granted	186	131.54	115	163.17
Vested(1)	(229)	66.02	(104)	77.10
Forfeited	(17)	84.79	(4)	70.57
Nonvested stock at September 30, 2017	399	$118.83	176	$105.34

(1) Service-based restricted stock units vested during each fiscal year. Performance-based restricted stock units included at 100% of target goal; under the terms of the awards, the recipient may earn between 0% and 200% of the award.

Restricted Stock Units are converted into the right to receive common stock upon vesting; prior to issuance, the Company permits the employee holders to satisfy their tax withholding requirements by net settlement, whereby the Company withholds a portion of the shares to cover the applicable taxes based on the fair market value of the Company's stock at the vesting date. The number of shares withheld to cover tax payments was 131,000 in fiscal 2017, 89,000 in fiscal 2016 and 91,000 in fiscal 2015; tax payments made were $15.7 million, $5.4 million and $5.3 million, respectively.

13. DEFINED BENEFIT PLANS

As a result of the Rofin acquisition, we have assumed all assets and liabilities of Rofin's defined benefit plans for the Rofin-Sinar Laser, GmbH ("RSL") and Rofin-Sinar Inc. ("RS Inc.") employees. The U.S. plan began in fiscal year 1995 and is partially funded. Any new employees hired after January 1, 2007, are not eligible for the RS Inc. pension plan. As is the customary practice with German companies, the German pension plan is unfunded. Any new employees hired after 2000 are not eligible for the RSL pension plan. The measurement date of these pension plans is September 30. For these pension plans, actuarial gains and losses are deferred into OCI and amortized over future periods.

Effective January 1, 2012, the RS Inc. defined benefit plan was amended to exclude highly compensated employees, as defined by the Internal Revenue Service, from receiving future years of service under the RS Inc. defined benefit plan. A non-qualified defined benefit plan was created to replace the benefits lost by the employees that were otherwise excluded from the qualified defined benefit plan.

In addition, we have defined benefit plans in South Korea, Japan, Spain and Italy, covering all full-time employees with at least one year of service, and a defined benefit plan in Germany covering two individuals. As is the customary practice with European and Asian companies, the plans are unfunded. We have elected to recognize all actuarial gains and losses on these plans immediately, as incurred. The measurement date of these defined benefit plans is September 30.

For financial reporting purposes, the calculation of net periodic pension costs is based upon a number of actuarial assumptions including a discount rate for plan obligations, an assumed rate of return on pension assets and an assumed rate of compensation increase for employees covered by the plan. All of these assumptions were based upon management's judgment, considering all known trends and uncertainties. Actual results that differ from these assumptions would impact future expense recognition and the cash funding requirements of our defined benefit plans.

Components of net periodic cost are as follows for the years ended September 30, 2017 and October 1, 2016 (in thousands):

	Fiscal	
	2017	**2016**
Service cost	**$2,077**	$ 872
Interest cost	**1,086**	97
Expected return on plan assets	**(736)**	—
Recognized net actuarial (gain) loss	**(236)**	993
Foreign exchange impacts	**(6)**	127
Net periodic pension cost	**$2,185**	$2,089

13. DEFINED BENEFIT PLANS (Continued)

The changes in projected benefit obligations and plan assets, as well as the ending balance sheet amounts for our defined benefit plans, are as follows (in thousands):

	Fiscal 2017
Change in benefit obligation:	
Projected benefit obligation at beginning of year(1)	$ 8,621
Business combinations and acquisitions	46,361
Service cost	2,077
Interest cost	1,086
Actuarial gains	(141)
Assumption change	(3,597)
Experience gain	(1,502)
Foreign exchange rate impacts	1,685
Benefits paid—total	(2,043)
Projected benefit obligation at end of year	$ 52,547
Projected benefit obligation at end of year:	
U.S. plans	$ 17,543
Foreign plans	35,004
Projected benefit obligation at end of year	$ 52,547
Change in plan assets:	
Fair value of plan assets at beginning of year	$ —
Business combinations and acquisitions	11,121
Actual return on plan assets	1,092
Employer contributions	—
Benefits paid—funded plan	(357)
Fair value of plan assets at end of year	$ 11,856
Fair value of plan assets at end of year:	
U.S. plans	$ 11,856
Foreign plans	—
Fair value of plan assets at end of year	11,856
Unfunded status at end of year	$(40,691)
Amounts recognized in the consolidated balance sheet:	
Accrued benefit liability—current	$ (1,238)
Accrued benefit liability—non current	(39,454)
Accumulated other comprehensive gain (pre-tax)	(5,360)

(1) The beginning of the year balances relate to plans held in South Korea, Japan, Italy and Germany. These were not disclosed in prior years as the net liability was not material.

13. DEFINED BENEFIT PLANS (Continued)

The information for plans with an accumulated benefit obligation in excess of plan assets is as follows (in thousands):

	Fiscal year-end 2017
Projected benefit obligation	$52,547
Accumulated benefit obligation	47,798
Fair value of plan assets	11,856

The weighted-average rates used to determine the net periodic benefit costs are as follows:

	Fiscal 2017
Discount rate:	
U.S.	3.6%
Foreign	1.7%
Expected return on plan assets:	
U.S.	6.6%
Foreign	—%
Rate of compensation increase	
U.S.	3.0%
Foreign	2.0%

We recognize the over (under) funded status of the defined benefit plans in our consolidated balance sheets. We also recognize, in other comprehensive income (loss), certain gains and losses that arise for the period but are deferred under current pension accounting rules. A one percent change in the discount rate or the expected rate of return on plan assets would not have a material impact on the projected benefit obligation or the net periodic benefit cost.

Expected benefit payments for each of the next five fiscal years and the five years aggregated thereafter is as follows (in thousands):

	Amount
2018	$ 1,708
2019	1,593
2020	1,755
2021	2,296
2022	3,319
2023 - 2027	14,220
Total	$24,891

13. DEFINED BENEFIT PLANS (Continued)

Our pension plan asset allocations at September 30, 2017 by asset category are as follows:

	Target Allocation	Fiscal 2017 Allocation
Equity securities	50%	56%
Debt securities	50%	44%
Total plan assets	100%	100%

We employ a total return investment approach whereby a mix of equity, debt securities and government securities are used to maximize the long-term return of plan assets for a prudent level of risk. The intent of this strategy is to minimize plan expenses by maximizing investment returns within that prudent level of risk. Furthermore, equity investments are diversified across U.S. and non-U.S. stocks as well as growth, value and small and large capitalizations. Additionally, cash balances are maintained at levels adequate to meet near-term plan expenses and benefit payments. Investment risk is measured and monitored on an ongoing basis through semi-annual investment portfolio reviews.

Investments in our defined benefit plan are stated at fair value. Level 1 assets are valued using quoted market prices that represent the asset value of the shares held by the trusts. The level 2 assets are investments in pooled funds, which are valued using a model to reflect the valuation of their underlying assets that are publicly traded with observable values. The fair value of level 3 pension plan assets are measured by compiling the portfolio holdings and independently valuing the securities in those portfolios.

The fair values of our pension plan assets, by level within the fair value hierarchy, at September 30, 2017 are as follows:

Asset categories	Level 1	Level 2	Level 3	Total
Equity securities				
Small cap	$—	$ 304	$—	$ 304
Mid cap	—	621	—	621
Large cap	—	2,382	—	2,382
Total market stock	—	1,106	—	1,106
International	—	1,897	—	1,897
Emerging markets	—	342	—	342
Debt securities				—
Bonds and mortgages	—	4,031	—	4,031
Inflation protected	—	555	—	555
High yield	—	618	—	618
Money market	—	—	—	—
Total plan assets	$—	$11,856	$—	$11,856

14. OTHER INCOME (EXPENSE), NET

Other income (expense) includes other-net which is comprised of the following (in thousands):

	Fiscal		
	2017	2016	2015
Foreign exchange gain (loss)	**$4,656**	$(6,310)	$(1,396)
Gain (loss) on deferred compensation investments, net (Note 12)	**4,955**	1,738	(351)
Other	**221**	57	21
Other—net	**$9,832**	$(4,515)	$(1,726)

15. INCOME TAXES

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

	Fiscal		
	2017	2016	2015
Currently payable:			
Federal	**$ 5,617**	$(3,069)	$ (932)
State	**1,022**	89	108
Foreign	**116,022**	48,039	32,189
	122,661	45,059	31,365
Deferred and other:			
Federal	**1,413**	(8,131)	(4,327)
State	**(153)**	(439)	(200)
Foreign	**(30,510)**	(1,095)	(3,679)
	(29,250)	(9,665)	(8,206)
Provision for income taxes	**$ 93,411**	$35,394	$23,159

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

	Fiscal		
	2017	2016	2015
United States	**$ 25,540**	$(44,029)	$(13,293)
Foreign	**276,515**	166,925	112,861
Income from continuing operations before income taxes	**$302,055**	$122,896	$ 99,568

15. INCOME TAXES (Continued)

The reconciliation of the income tax expense at the U.S. Federal statutory rate (35.0%) to actual income tax expense is as follows (in thousands):

	Fiscal		
	2017	**2016**	**2015**
Federal statutory tax expense	**$105,719**	$43,015	$ 34,849
Valuation allowance	**4,454**	1,441	635
Foreign taxes at rates less than U.S. rates, net	**(12,346)**	(5,642)	(10,558)
Stock-based compensation	**3,969**	2,161	2,150
State income taxes, net of federal income tax benefit	**398**	(198)	(38)
Research and development credit	**(7,884)**	(4,408)	(2,979)
Deferred compensation	**(1,022)**	(428)	(133)
Release of foreign unrecognized tax benefits	**(538)**	(4,961)	(39)
Release of interest accrued for unrecognized tax benefits	**(78)**	(1,508)	(38)
Reversal of Competent Authority	**—**	4,328	—
Other	**739**	1,594	(690)
Provision for income taxes	**$ 93,411**	$35,394	$ 23,159
Effective tax rate	**30.9%**	28.8%	23.3%

The effective tax rate on income from continuing operations before income taxes for fiscal 2017 of 30.9% was lower than the statutory rate of 35.0%. This was primarily due to differences related to the benefit of income subject to foreign tax rates that are lower than U.S. tax rates including the Singapore tax exemption, the benefit of foreign tax credits and federal research and development tax credits, the benefit of a domestic manufacturing deduction under IRC Section 199 and the release of certain tax reserves due to audit settlement. These amounts are partially offset by Rofin transaction costs not deductible for tax purposes, tax costs of Rofin restructuring, ASC 740-10 (formerly FIN48) tax liabilities for transfer pricing, stock-based compensation not deductible for tax purposes and limitations on the deductibility of compensation under IRC Section 162(m).

In October 2016, Coherent Singapore received an amended Pioneer Status tax exemption from the Singapore authorities effective from fiscal 2012 through fiscal 2021. The tax holiday continues to be conditional upon our meeting certain revenue, business spending and employment thresholds. The impact of this tax exemption decreased Singapore income taxes by approximately $1.1 million and $0.7 million in fiscal 2017 and fiscal 2016, respectively. There is no tax benefit for fiscal 2015 due to the utilization of net operating loss.

15. INCOME TAXES (Continued)

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

	Fiscal year-end	
	2017	**2016**
Deferred tax assets:		
Reserves and accruals not currently deductible	**$ 52,803**	$ 34,800
Operating loss carryforwards and tax credits	**61,371**	52,213
Deferred service revenue	**2,987**	2,186
Inventory capitalization	**7,116**	5,001
Stock-based compensation	**7,839**	6,428
Competent authority offset to transfer pricing tax reserves	**12,948**	1,437
Depreciation and amortization	**—**	1,043
Other	**4,567**	5,277
Total gross deferred tax assets	**149,631**	108,385
Valuation allowance	**(28,745)**	(17,642)
Total net deferred tax assets	**120,886**	90,743
Deferred tax liabilities:		
Gain on issuance of stock by subsidiary	**22,378**	20,781
Depreciation and amortization	**60,956**	—
Accumulated translation adjustment	**234**	4,273
Total gross deferred tax liabilities	**83,568**	25,054
Net deferred tax assets	**$ 37,318**	$ 65,689

In determining our fiscal 2017 and 2016 tax provisions under ASC Subtopic 740, 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 and certain state research and development tax credits, foreign tax attributes and foreign net operating losses at fiscal 2017 and 2016 year-ends.

During fiscal 2017, we increased our valuation allowance on deferred tax assets by $11.1 million to $28.7 million, primarily due to the increase in California and other states research and development tax credits and the release of R&D tax reserves for California and other states, which are not expected to be recognized. The Company had U.S. federal deferred tax assets related to research and development credits, foreign tax credits and other tax attributes that can be used to offset federal taxable income in future periods. These credit carryforwards will expire if they are not used within certain time periods. As of September 30, 2017, management determined that there is sufficient positive evidence to conclude that it is more likely than not sufficient taxable income will exist in the future allowing us to recognize these deferred tax assets.

15. INCOME TAXES (Continued)

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

	Fiscal year-end	
	2017	**2016**
Non-current deferred income tax assets	**$ 82,691**	$67,157
Non-current deferred income tax liabilities	**(45,373)**	(1,468)
Net deferred tax assets	**$ 37,318**	$65,689

We have various tax attribute carryforwards which include the following:

- Foreign gross net operating loss carryforwards are $48.5 million, of which $39.9 million have no expiration date and $8.6 million have various expiration dates beginning in fiscal year 2018. Among the total of $48.5 million foreign net operating loss carryforwards, a valuation allowance of $8.9 million has been provided for certain jurisdictions since the recovery of the carryforwards are uncertain. Federal and certain state gross net operating loss carryforwards are $9.2 million and $30.8 million, respectively, which were acquired from our Rofin-Sinar acquisition. A full valuation allowance against certain other state net operating losses has been recorded. California gross net operating loss carryforward is $0.3 million and is scheduled to expire in fiscal year 2032. The tax benefit relating to approximately $0.3 million of the California net operating loss carryforward is off-balance sheet.
- Federal R&D credit carryforwards of $30.2 million are scheduled to expire beginning in fiscal year 2024. The tax benefit relating to approximately $4.9 million of the federal tax credit carryforwards is off-balance sheet. California R&D credit carryforwards of $27.2 million have no expiration date. The tax benefit relating to approximately $1.4 million of the state tax credit carryforwards is off-balance sheet with a full valuation allowance. The total of $22.1 million valuation allowance, before federal benefit, has been recorded against California R&D credit carryforwards since the recovery of the carryforwards are uncertain. Other states R&D credit carryforwards of $3.2 million are scheduled to expire beginning in fiscal year 2018. A valuation allowance totaling $2.7 million, before federal benefit, has been recorded against certain state R&D credit carryforwards since the recovery of the carryforwards is uncertain.
- Federal foreign tax credit carryforwards of $14.9 million are scheduled to expire beginning in fiscal year 2018. The tax benefit relating to approximately $14.9 million of the federal foreign tax credit carryforwards is off-balance sheet.

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 fiscal 2011 are closed. In September 2017, the Internal Revenue Service (IRS) completed its audit of Coherent Inc.'s fiscal 2013 tax return with no adjustment. The extension of the statutes of limitations for its fiscal 2011 and 2012 tax returns will be closed on June 30, 2018. In our major foreign jurisdictions and our major state jurisdictions, the years prior to fiscal 2011 and 2013, respectively, are closed to examination. Earlier years in our various jurisdictions may remain open for adjustment to the extent that we have tax attribute carryforwards from those years.

15. INCOME TAXES (Continued)

In July 2015 and March 2016, Coherent Kaiserslautern GmbH (formerly Lumera Laser GmbH) received tax audit notices for the fiscal years 2010 to 2014. The audit began in August 2015. We acquired the shares of Lumera Laser GmbH in December 2012 and, pursuant to the terms of the acquisition agreement, we should not have responsibility for any assessments related to the pre-acquisition period. In July, 2016, Coherent Holding GmbH and Coherent Deutschland GmbH each received a tax audit notice for the fiscal years 2011 to 2014. The audit began in August 2016. In November 2016, Coherent GmbH, Coherent LaserSystems GmbH & Co. KG and Coherent Germany GmbH received audit notices for the period that they were in existence during the fiscal years 2011 through 2014. The audit work began in January 2017. In the fourth quarter of fiscal 2017, all German tax audits were extended to fiscal 2015 and are currently in progress.

We regularly engage in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions and management believes that it has adequately provided reserves for any adjustments that may result from tax examinations.

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

	Fiscal year-end		
	2017	**2016**	**2015**
Balance as of the beginning of the year	**$20,442**	$22,538	$21,893
Increase related to acquisitions	**25,151**	—	—
Tax positions related to current year:			
Additions	**1,326**	2,468	311
Reductions	**—**	—	—
Tax positions related to prior year:			
Additions	**4,951**	424	855
Reductions	**(65)**	(3,239)	—
Settlements	**—**	(1,655)	—
Lapses in statutes of limitations	**(610)**	(94)	(521)
Decrease in unrecognized tax benefits based on audit results	**(5,217)**	—	—
Foreign currency revaluation adjustment	**1,588**	—	—
Balance as of end of year	**$47,566**	$20,442	$22,538

As of September 30, 2017, the total amount of gross unrecognized tax benefits including gross interest and penalties was $50.4 million, of which $34.7 million, if recognized, would affect our effective tax rate. Our total gross unrecognized tax benefit was classified as a long-term taxes payable in the consolidated balance sheets after reduction by certain deferred tax assets. We include interest and penalties related to unrecognized tax benefits within the provision for income taxes. As of September 30, 2017, the total amount of gross interest and penalties accrued was $2.8 million and it is classified as long-term taxes payable in the consolidated balance sheets. As of October 1, 2016, we had accrued $0.2 million for the gross interest and penalties and it is classified as long-term taxes payable in the consolidated balance sheets.

15. INCOME TAXES (Continued)

Management believes that it has adequately provided for any adjustments that may result from tax examinations. We regularly engage in discussions and negotiations with tax authorities regarding tax matters in various jurisdictions. Although the timing of resolution, settlement and closure of audits is not certain, we do not believe it is reasonably possible that our unrecognized tax benefits will materially change in the next 12 months.

A summary of the fiscal tax years that remain subject to examination, as of September 30, 2017, for our major tax jurisdictions is:

United States—Federal	2011—forward
United States—Various States	2013—forward
Netherlands	2012—forward
Germany	2011—forward
Japan	2011—forward
South Korea	2012—forward
United Kingdom	2016—forward

16. SEGMENT AND GEOGRAPHIC INFORMATION

As a result of the acquisition of Rofin-Sinar Technologies Inc. (“Rofin”) in the first quarter of fiscal 2017 (see discussion below), we reorganized our prior two reporting segments (Specialty Laser Systems and Commercial Lasers and Components) into two new reporting segments for the combined company: OEM Laser Sources (“OLS”) and Industrial Lasers & Systems (“ILS”). This segment reorganization was based upon the organizational structure of the combined company and how the chief operating decision maker (“CODM”) receives and utilizes information provided to allocate resources and make decisions. Accordingly, our segment information was restated retroactively in the first quarter of fiscal 2017. This segmentation reflects the go-to-market strategies and synergies for our broad portfolio of laser technologies and products. While both segments deliver cost-effective, highly reliable photonics solutions, the OLS business segment is focused on high performance laser sources and complex optical sub-systems, typically used in microelectronics manufacturing, medical diagnostics and therapeutic medical applications, as well as in scientific research. Our ILS business segment delivers high performance laser sources, sub-systems and tools primarily used for industrial laser materials processing, serving important end markets like automotive, machine tool, consumer goods and medical device manufacturing. Rofin’s operating results have been included primarily in our Industrial Lasers & Systems segment.

We have identified OLS and ILS as operating segments for which discrete financial information is 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 CODM as he assesses the performance of the segments and decides how to allocate resources to the segments. Income 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

16. SEGMENT AND GEOGRAPHIC INFORMATION (Continued)

not tracked or compiled by segment and is not available to be reported in our disclosures. Income from operations represents the net 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 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 net sales and income from continuing operations for our operating segments and a reconciliation of our total income from continuing operations to income from continuing operations before income taxes (in thousands):

	Fiscal		
	2017	**2016**	**2015**
Net sales:			
OEM Laser Sources	**$1,143,620**	$722,517	$655,854
Industrial Lasers & Systems	**579,691**	134,868	146,606
Total net sales	**$1,723,311**	$857,385	$802,460
Income (loss) from continuing operations:			
OEM Laser Sources	**$ 432,839**	$197,923	$152,660
Industrial Lasers & Systems	**(26,447)**	(13,869)	(10,027)
Corporate and other	**(80,897)**	(56,440)	(41,886)
Total income from continuing operations	**$ 325,495**	$127,614	$100,747
Total other expense, net	**(23,440)**	(4,718)	(1,179)
Income from continuing operations before income taxes	**$ 302,055**	$122,896	$ 99,568

Geographic Information

Our foreign operations consist primarily of manufacturing facilities 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 2017, 2016 and 2015 is based on the location of the end customer. Geographic long-lived asset information presented below is based on the physical location of the assets at the end of each year.

16. SEGMENT AND GEOGRAPHIC INFORMATION (Continued)

Sales to unaffiliated customers are as follows (in thousands):

SALES	Fiscal 2017	2016	2015
United States	**$ 297,699**	$204,963	$213,483
Foreign countries:			
South Korea	**628,369**	187,908	195,589
China	**162,316**	63,050	57,548
Europe, other	**162,162**	55,351	53,027
Japan	**154,985**	193,418	135,674
Germany	**145,835**	71,427	75,474
Asia-Pacific, other	**107,713**	36,364	28,036
Rest of World	**64,232**	44,904	43,629
Total foreign countries sales	**1,425,612**	652,422	588,977
Total sales	**$1,723,311**	$857,385	$802,460

Long-lived assets, which include all non-current assets other than goodwill, intangibles, non-current restricted cash and deferred taxes, by geographic region, are as follows (in thousands):

LONG-LIVED ASSETS	Fiscal year-end 2017	2016
United States	**$120,116**	$ 92,771
Foreign countries:		
Germany	**159,483**	55,786
Europe, other	**18,681**	2,478
Asia-Pacific	**24,517**	11,981
Total foreign countries long-lived assets	**202,681**	70,245
Total long-lived assets	**$322,797**	$163,016

Major Customers

We had one major customer who accounted for 22.9%, 13.1% and 17.2% of consolidated revenue during fiscal 2017, 2016 and 2015, respectively. We had another major customer who accounted for 16.4% of consolidated revenue during fiscal 2016. Both customers purchased primarily from our OLS segment.

17. RESTRUCTURING CHARGES

In the first quarter of fiscal 2017, we began the implementation of planned restructuring activities in connection with the acquisition of Rofin. These activities in fiscal 2017 primarily relate to exiting our legacy high power fiber laser product line, change of control payments to Rofin officers, the exiting of two product lines acquired in the acquisition of Rofin, realignment of our supply chain due to segment reorganization and consolidation of sales and distribution offices. These activities resulted in charges

17. RESTRUCTURING CHARGES (Continued)

primarily for employee termination, other exit related costs associated with the write-off of property and equipment and inventory and early lease termination costs.

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 2017 (in thousands):

	Severance Related	Asset Write-Offs	Other	Total
Balances, October 1, 2016	$ —	$ —	—	$ —
Provision	5,143	6,439	742	12,324
Payments and other	(3,842)	(6,439)	(742)	(11,023)
Balances, September 30, 2017	$ 1,301	$ —	$ —	$ 1,301

At September 30, 2017, $1.3 million of accrued severance related costs were included in other current liabilities. The current year severance related costs are primarily comprised of severance pay for employees being terminated due to the transition of activities out of Rofin including change of control payments to Rofin officers and the exit from certain product lines as well as the consolidation of sales and distribution offices. The current year asset write-offs are primarily comprised of write-offs of inventory and equipment due to exiting our legacy high power fiber laser product line and inventory write-offs due to the exit of other Rofin product lines. By segment, $11.4 million of restructuring costs was incurred in the ILS segment and $0.9 million was incurred in the OLS segment in fiscal 2017. Restructuring charges are recorded in cost of sales, research and development and selling, general and administrative expenses in our consolidated statements of operations.

18. DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE

Discontinued Operations

Discontinued operations are comprised of Rofin's low power CO_2 laser business based in Hull, United Kingdom (the "Hull Business"), that we acquired as part of our acquisition of Rofin. As a condition of the acquisition, we were required to divest and hold separate the Hull Business and will report this business separately as a discontinued operation until it is divested. In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business and submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. We completed the divestiture of the Hull Business on October 11, 2017, after receiving approval for the terms of the sale from the European Commission. See Note 19, "Subsequent Event".

For financial statement purposes, the results of operations for this discontinued business have been segregated from those of the continuing operations and are presented in our consolidated financial statements as discontinued operations and the net assets of the remaining discontinued business have been presented as current assets and current liabilities held for sale.

18. DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE (Continued)

The results of discontinued operations for fiscal 2017 are as follows (in thousands):

	Fiscal 2017
Net sales	$26,996
Cost of sales	19,353
Operating expenses	9,002
Other expense	220
Income tax benefit	(57)
Net loss from discontinued operations	$(1,522)

Assets Held for Sale

In the third quarter of fiscal 2017, we re-evaluated the carrying value of the Hull Business that has been presented as assets held for sale since the acquisition. Approximately $33.9 million of goodwill was reallocated from the assets held for sale to the remaining business acquired as we are within the remeasurement period. Current assets and current liabilities classified as held for sale as of September 30, 2017 related to discontinued operations are as follows (in thousands):

	Discontinued Operations
Cash	$ 33
Accounts receivable	6,931
Inventories	5,586
Prepaid expenses and other assets	607
Property and equipment	10,705
Intangible assets	11,400
Total current assets held for sale	$35,262
Accounts payable	$ 1,129
Other current liabilities	4,875
Total current liabilities held for sale	$ 6,004

In the fourth quarter of fiscal 2017, management decided to sell several entities that we acquired in the Rofin acquisition. Although the sale was not completed as of the end of fiscal 2017, we recorded a non-cash impairment charge of $2.9 million to operating expense in our results of operations in the fourth quarter of fiscal 2017 to reduce our carrying value in these entities to fair value. Current assets

18. DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE (Continued)

and current liabilities classified as held for sale as of September 30, 2017 related to continuing operations are as follows (in thousands):

	Continuing Operations
Accounts receivable	$1,668
Inventories	5,202
Prepaid expenses and other assets	472
Property and equipment	457
Intangible assets	1,187
Total current assets held for sale	$8,986
Accounts payable	$ 189
Other current liabilities	828
Total current liabilities held for sale	$1,017

19. SUBSEQUENT EVENT

As a condition of the acquisition, we were required to hold separate and divest Rofin's low power CO_2 laser business based in Hull, United Kingdom (the "Hull Business"), and have reported this business separately as a discontinued operation until its divestiture. In the third quarter of fiscal 2017, we entered into an agreement with a potential purchaser of the Hull Business and submitted our proposed purchaser to the European Commission for its review and approval, including the terms under which the purchase and operation of the Hull Business will occur. We completed the divestiture of the Hull Business on October 11, 2017, after receiving approval for the terms of the sale from the European Commission. We expect to record an immaterial gain on the divestiture in the first quarter of fiscal 2018.

QUARTERLY FINANCIAL INFORMATION (UNAUDITED)

Summarized quarterly financial data for the years ended September 30, 2017 and October 1, 2016 are as follows (in thousands, except per share amounts):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Fiscal 2017:				
Net sales	$346,073	$422,833	$464,107	$490,298
Gross profit	141,514	179,515	207,186	222,054
Net income	30,408	41,845	61,117	73,752
Net income per basic share	$ 1.25	$ 1.71	$ 2.49	$ 3.00
Net income per diluted share	$ 1.23	$ 1.69	$ 2.46	$ 2.96
Fiscal 2016:				
Net sales	$190,275	$199,882	$218,767	$248,461
Gross profit	83,898	88,599	94,559	114,336
Net income	20,286	17,781	18,650	30,785
Net income per basic share	$ 0.85	$ 0.74	$ 0.77	$ 1.27
Net income per diluted share	$ 0.84	$ 0.73	$ 0.76	$ 1.25

FORWARD-LOOKING STATEMENTS

The shareholder letter contains forward-looking statements, as defined under the Federal securities laws. These forward-looking statements include the statements that relate to: the Company's position and performance in fiscal 2018, the outlook in fiscal 2018 for the Company's products in the microelectronics market, capex investments in the semiconductor market, expectations for the growth of fiber laser sales in fiscal 2018, and the use of excess cash. These forward-looking statements are not guarantees of future results and are subject to risks, uncertainties and assumptions that could cause our actual results to differ materially and adversely from those expressed in any forward-looking statement. Factors that could cause actual results to differ materially include risks and uncertainties, including, but not limited to, risks associated with any general market recovery, growth in demand for our products, the worldwide demand for flat panel displays and OLEDs, the demand for and use of short-pulse lasers in commercial applications, our successful implementation of our customer design wins, our and our customers' exposure to risks associated with worldwide economic conditions and, the ability of our customers to forecast their own end markets, our ability to accurately forecast future periods, customer acceptance and adoption of our new product offerings, continued timely availability of products and materials from our suppliers, our ability to timely ship our products and our customers' ability to accept such shipments, our ability to have our customers qualify our product offerings, our ability to successfully integrate Rofin-Sinar Technologies, Inc., worldwide government economic policies and other risks identified in the Company's Securities and Exchange Commission filings. Readers are encouraged to refer to the risk disclosures and critical accounting policies and estimates described in the Company's reports on Forms 10-K, 10-Q and 8-K, as applicable and as filed from time-to-time by the Company. Actual results, events and perfor¬mance may differ materially from those presented herein. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date of this letter. The Company undertakes no obligation to update these forward-looking statements as a result of events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

DIRECTORS AND EXECUTIVE OFFICERS OF COHERENT, INC.

Board of Directors

Garry W. Rogerson, Ph.D.
Chairman of the Board, Coherent, Inc.
Former Chief Executive Officer,
Advanced Energy Industries, Inc.

John R. Ambroseo, Ph.D.
President and Chief Executive Officer
Coherent, Inc.

Jay T. Flatley
Executive Chairman
Illumina, Inc.

Pamela Fletcher
Vice President – Global Electric Vehicle
Programs at General Motors Company

Susan James
Partner and Executive Board Member (retired)
Ernst & Young

L. William Krause
President
LWK Ventures

Steve Skaggs
Former Senior Vice President and
Chief Financial Officer
Atmel Corporation

Sandeep Vij
Former President and Chief Executive Officer
MIPS Technologies, Inc.

Executive Officers

John R. Ambroseo, Ph.D.
President and Chief Executive Officer

Kevin Palatnik
Executive Vice President and
Chief Financial Officer

Bret DiMarco
Executive Vice President, General Counsel
and Corporate Secretary

Thomas Merk
Executive Vice President and General Manager,
Industrial Lasers & Systems

Paul Sechrist
Executive Vice President, Worldwide Sales
and Service

Mark Sobey, Ph.D.
Executive Vice President and General Manager,
OEM Laser Sources

Independent Registered Public Accounting Firm Deloitte & Touche, LLP
San Jose, CA

SEC Form 10-K
Form 10-K was filed with the Securities and Exchange Commission on November 28, 2017 for the 2017 fiscal year. Copies will be made available without charge upon request.

INVESTOR RELATIONS

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Financial Information
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Please send change of address and other correspondence to the transfer agent:

American Stock Transfer
& Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
Telephone: (800) 937-5449
info@astfinancial.com
www.astfinancial.com

Annual meeting of shareholders will be held on March 1, 2018 at 8:00 a.m.

Stock Symbol
Common Stock traded under the symbol
COHR

Coherent, Inc. is an equal opportunity employer, M/F/H/V

Readers are encouraged to refer to the risk disclosures described in the Company's Form 10-K, 10-K/A, 10-Q and 8-K, as applicable.

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