VISHAY INTERTECHNOLOGY INC
Form 10-K
February 19, 2014

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

FORM 10-K

ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2013
or
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission file number 1-7416

Vishay Intertechnology, Inc.
(Exact name of registrant as specified in its charter)

Delaware	38-1686453
(State or other jurisdiction of incorporation or organization)	(IRS employer identification no.)

63 Lancaster Avenue
Malvern, Pennsylvania 19355-2143
(Address of principal executive offices)

(610) 644-1300
(Registrant's telephone number, including area code)

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

Common Stock, $0.10 par value	New York Stock Exchange
(Title of class)	(Exchange on which registered)

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 ý No ¨

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No ý
Note – Checking the box above will not relieve any registrant required to file reports under Section 13 or 15(d) of the Exchange Act from their obligations under those Sections.

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 ý 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 (§ 232.405 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 ý No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this chapter) 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. ý

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

Large accelerated filer ý Accelerated filer ¨

Non-accelerated filer ¨ Smaller reporting company ¨

Indicate by checkmark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ¨ No ý

The aggregate market value of the voting stock held by non-affiliates computed by reference to the price at which the common equity was last sold as of the last business day of the registrant's most recently completed second fiscal quarter ($13.89 on June 29, 2013), assuming conversion of all of its Class B common stock held by non-affiliates into common stock of the registrant, was $1,835,000,000. There is no non-voting stock outstanding.

As of February 17, 2014, registrant had 135,319,976 shares of its common stock and 12,129,227 shares of its Class B common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement, which will be filed within 120 days of December 31, 2013, are incorporated by reference into Part III.

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Vishay Intertechnology, Inc.
Form 10-K for the year ended December 31, 2013

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PART I

Item 1. BUSINESS

Our Business

Vishay Intertechnology, Inc. ("Vishay," the "Company," "we," "us," or "our") is a leading global manufacturer and supplier of discrete semiconductors and passive components. Semiconductors include MOSFETs, diodes, and optoelectronic components. Passive components include resistive products, capacitors, and inductors. Discrete semiconductors and passive components are essential elements of virtually every type of electronic circuit. They support the microprocessor chips and other integrated circuits ("ICs") that coordinate and control the functions of electronic devices and equipment. We offer our customers "one-stop shop" access to one of the most comprehensive electronic component product lines of any manufacturer in the United States, Europe, and Asia.

Our semiconductor components are used for a wide variety of functions, including power control, power conversion, power management, signal switching, signal routing, signal blocking, signal amplification, two-way data transfer, one-way remote control, and circuit isolation. Our passive components are used to restrict current flow, suppress voltage increases, store and discharge energy, control alternating current ("AC") and voltage, filter out unwanted electrical signals, and perform other functions. Our components are used in virtually every type of product that contains electronic circuitry, in the industrial, computing, automotive, consumer, telecommunications, power supplies, military, aerospace, and medical markets.

The Vishay Story

In the 1950's, the late Dr. Felix Zandman, Vishay's founder, was issued patents for his PhotoStress® coatings and instruments, used to reveal and measure the distribution of stresses in structures such as airplanes and cars under live load conditions. His research in this area led him to develop Bulk Metal® foil resistors – ultra-precise, ultra-stable resistors with performance far beyond any other resistor available to date.

In 1962, Dr. Zandman, with a loan from the late Alfred P. Slaner, founded Vishay to develop and manufacture Bulk Metal foil resistors. Concurrently, J.E. Starr developed foil resistance strain gages, which also became part of Vishay. Throughout the 1960's and 1970's, Vishay established itself as a technical and market leader in foil resistors, PhotoStress products, and strain gages. These products were included with the measurements and foil resistor businesses that we spun off into an independent, publicly-traded company named Vishay Precision Group, Inc. ("Vishay Precision Group" or "VPG") through a tax-free stock dividend to our stockholders on July 6, 2010.

In 1985, Vishay began to expand its product line through various strategic acquisitions, including the resistor companies Dale Electronics, Draloric Electronic, and Sfernice. In the early 1990's, Vishay applied its acquisition strategy to the capacitor market, with the major acquisitions of Sprague Electric, Roederstein, and Vitramon. In 2002, Vishay acquired BCcomponents, the former passive components business of Philips Electronics and Beyschlag, which greatly enhanced Vishay's global market position in passive components. Over the years, we have made several smaller passive components acquisitions to gain market share, penetrate different geographic markets, enhance new product development, round out our product lines, or grow our high margin niche businesses. These include Electro-Films, Cera-Mite, and Spectrol in 2000; Tansitor and North American Capacitor Company (Mallory) in 2001; the thin film interconnect business of Aeroflex in 2004; Phoenix do Brasil in 2006; the wet tantalum capacitor business of KEMET Corporation in 2008; the resistor businesses of Huntington Electric in 2011; HiRel Systems in 2012; and MCB Industrie in 2013.

In the late 1990's, Vishay began expanding its product lines to include discrete semiconductors. In 1998, Vishay acquired the Semiconductor Business Group of TEMIC, which included Telefunken and an 80.4% interest in Siliconix, producers of MOSFETs, RF transistors, diodes, optoelectronics, and power and analog switching integrated circuits. Vishay's next semiconductor acquisition came in 2001, with the purchase of the infrared components business of Infineon Technologies, which was followed the same year by Vishay's acquisition of General Semiconductor, a leading global manufacturer of rectifiers and diodes. In 2005, Vishay made a successful tender offer for the minority interest in Siliconix. In 2007, Vishay acquired the Power Control Systems business of International Rectifier, further enhancing our product offerings. These acquisitions propelled Vishay into the top ranks of discrete semiconductor manufacturers.

We continue to implement the vision, strategy, and culture articulated by Dr. Zandman as we continue to work tirelessly to enhance value for our stockholders.

Vishay was incorporated in Delaware in 1962 and maintains its principal executive offices at 63 Lancaster Avenue, Malvern, Pennsylvania 19355-2143. Our telephone number is (610) 644-1300.

Our Competitive Strengths

Global Technology Leader

We were founded based on the inventions of Dr. Felix Zandman and we continue to emphasize technological innovation as a driver of growth. Many of our products and manufacturing techniques, technologies, and packaging methods have been invented, designed, and developed by Dr. Zandman, our engineers, and our scientists. We are currently a worldwide technology and market leader in wirewound and other power resistors, leaded film resistors, thin film SMD resistors, wet and conformal-coated tantalum capacitors, capacitors for power electronics, power rectifiers, low-voltage power MOSFETs, and infrared components.

Research and Development Provides Customer-Driven Growth Solutions

We maintain strategically placed application and product support centers where proximity to customers and our manufacturing locations enables us to more easily gauge and satisfy the needs of local markets. The breadth of our product portfolio along with the proximity of our field application engineers to customers provides increased opportunities to have our components selected and designed into new end products by customers in all relevant market segments. We also maintain research and development personnel and promote programs at a number of our production facilities to develop new products and new applications of existing products, and to improve manufacturing processes and technologies. We plan to grow our business and increase earnings per share, in part, through accelerating the development of new products and technologies and increasing design-in opportunities by expanding our technical resources for providing solutions to customers.

Operational Excellence

We are a leading manufacturer in our industry, with a broad product portfolio, access to a wide range of end markets and sales channels, and geographic diversity. We have solid, well-established relationships with our customers and strong distribution channels. Our senior management team is highly experienced, with deep industry knowledge. Over the past two decades, our management team has successfully restructured our company and integrated several acquisitions. We can adapt our operations to changing economic conditions, as demonstrated by our ability to remain profitable and generate cash through the volatile economic cycle of the recent past.

Broad Market Penetration

We have one of the broadest product lines of discrete semiconductors and passive components among our competitors. Our broad product portfolio allows us to penetrate markets in all industry segments and all regions, which reduces our exposure to a particular end market or geographic location. We plan to grow our business and increase earnings per share, in part, through improving market penetration by expanding manufacturing facilities for our most successful products, increasing technical resources, and developing markets for specialty products in Asia. Our net revenues for the following applicable periods were attributable to customers in the following regions:

	Years Ended December 31,		
	2013	2012	2011
Asia	38%	37%	38%
Europe	37%	37%	40%
Americas	25%	26%	22%

The share of net revenues by end market was as follows:

	Years Ended December 31,		
	2013	2012	2011
Industrial	29%	29%	28%
Automotive	21%	20%	18%
Computing	13%	15%	18%
Telecommunications	11%	11%	12%
Power Supplies	8%	7%	8%
Consumer Products	8%	7%	7%
Military and Aerospace	6%	7%	6%
Medical	4%	4%	3%

Strong Track Record of Growth through Acquisitions

Since 1985, we have expanded our product line through various strategic acquisitions, growing from a small manufacturer of precision resistors and resistance strain gages to one of the world's largest manufacturers and suppliers of a broad line of electronic components. We have successfully integrated the acquired companies within our existing management and operational structure, reducing selling, general, and administrative expenses through the integration or elimination of redundant sales and administrative functions, creating manufacturing synergies, while improving customer service. We plan to grow our business and increase earnings per share, in part, through targeted acquisitions. We often target high margin niche business acquisitions, such as Huntington Electric, HiRel Systems, and MCB Industrie, which we acquired in 2011, 2012, and 2013, respectively. These acquisitions accounted for 3.4% of 2013 revenues and have margins above our corporate average.

Strong Free Cash Flow Generation

We refer to the amount of cash generated from operations in excess of our capital expenditure needs and net of proceeds from the sale of assets as "free cash." Due to our strong operational management, cost control measures, efficient capital expenditures, broad product portfolio, and strong market position, we have generated positive "free cash" in each of the past 17 years and "free cash" in excess of $80 million in each of the past 12 years. We expect the benefits of our restructuring and other cost cutting measures in prior periods and continued cost control activities (see

"Cost Management" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations") to contribute to our "free cash" generation going forward.

Financial Strength and Flexibility

As of December 31, 2013, our cash and short-term investment balance exceeded our debt balance by $787 million. We also maintain a credit facility, which provides a revolving commitment of up to $640 million through August 8, 2018, of which $518 million was available as of December 31, 2013. Our net cash position and short-term investment balance, available revolving commitment, and strong "free cash" flow generation provide financial strength and flexibility and reduce our exposure to future economic uncertainties.

Our Key Challenges

Economic Environment

Our business and operating results have been and will continue to be impacted by the global economy and the local economies in which our customers operate. Our revenues are dependent on end markets that are impacted by fluctuating consumer and industrial demand, and our operating results can be adversely affected by reduced demand in those markets.

Competition

Our business is highly competitive worldwide, with low transportation costs and few import barriers. Our major competitors, some of which are larger than us, have significant financial resources and technological capabilities. To continue to grow our business successfully, we need to continually develop, introduce, and market new and innovative products, modify existing products, respond to technological change, and customize certain products to meet customer requirements.

Continuous Innovation and Protection of Intellectual Property

Our ability to compete effectively with other companies depends, in part, on our ability to maintain the proprietary nature of our technology. Although we have been awarded, have filed applications for, or have licenses to use, numerous patents in the United States and other countries, there can be no assurance concerning the degree of protection afforded by these patents or the likelihood that pending patents will be issued.

Continuing to Grow through Acquisitions

Our long-term historical growth in revenues and net earnings has resulted in large part from our strategy of growth through acquisitions. For this strategy to remain successful, we need to continue to identify attractive and available acquisition candidates, complete acquisitions on favorable terms, and integrate new businesses, manufacturing processes, employees, and logistical arrangements into our existing management and operating infrastructure.

For a more detailed discussion of the risks and uncertainties inherent in our business, which could materially and adversely affect our business, results of operations or financial condition, see "Risk Factors" in Item 1A.

Key Business Strategies

Since our first acquisition in 1985, we have pursued a business strategy that principally consists of the following elements:

Invest in Innovation to Drive Growth

We plan to continue to use our research and development ("R&D"), engineering, and product marketing resources to continually roll out new and innovative products. As part of our plan to foster intensified internal growth, we have increased our R&D and engineering technical staff by 18% since 2009 and plan to further increase it. In addition, we are increasing our technical field sales force in Asia by about 25% to increase the opportunities to design-in our products in local markets. Our ability to react to changing customer needs and industry trends will continue to be key to our success. We intend to leverage our insights into customer demand to continually develop new innovative products within our existing lines and to modify our existing core products to make them more appealing, addressing changing customer needs and industry trends.

We are directing increased funding and are focusing on developing products to capitalize on the connectivity, mobility, and sustainability growth drivers of our business.

Cost Management

We place a strong emphasis on controlling our costs. We focus on controlling fixed costs and reducing variable costs. When our ongoing cost management activites are not adequate, we take actions to maintain our cost competitiveness including restructuring our business to realign our labor distribution.

Growth through Strategic Acquisitions

We plan to continue to expand within the electronic components industry, through the acquisition of other manufacturers of electronic components that have established positions in major markets, reputations for product innovation, quality, and reliability, strong customer bases, and product lines with which we have substantial marketing and technical expertise.

Customer Service Excellence

We maintain significant production facilities in those regions where we market the bulk of our products in order to enhance the service and responsiveness that we provide to our customers. We aim to further strengthen our relationships with customers and strategic partners by providing broad product lines that allow us to provide "one-stop shop" service, whereby they can streamline their design and purchasing processes by ordering multiple types of products.

Our growth plan was designed based on the tenets of the key business strategies listed above.

Products

We design, manufacture, and market electronic components that cover a wide range of functions and technologies. Our product portfolio includes:

MOSFETs Segment

MOSFETs
- Low-Voltage TrenchFET® Power MOSFETs
- Medium-Voltage Power MOSFETs
- High-Voltage Planar MOSFETs
- High-Voltage Super Junction MOSFETs
- Automotive-Grade MOSFETs

ICs
- Power Management and Power Control ICs
- Smart Load Switches
- Analog Switches and Multiplexers

Diodes Segment

Rectifiers
- Schottky Rectifiers
- Ultra-Fast Recovery Rectifiers
- Standard and Fast Recovery Rectifiers
- High-Power Rectifiers/Diodes
- Bridge Rectifiers

Small-Signal Diodes
- Schottky and Switching Diodes
- Zener Diodes
- Tuner/Capacitance Diodes
- Bandswitching Diodes
- RF PIN Diodes

Protection Diodes
- TVS Diodes or TRANSZORB® (uni-directional, bi-directional)
- ESD Protection Diodes (including arrays)

Thyristors/SCR
- Phase-Control Thyristors
- Fast Thyristors

Power Modules
- Input Modules (diodes and thyristors)
- Output & Switching Modules (contain MOSFETs, IGBTs, and diodes)
- Custom Modules

Optoelectronic Components Segment

Infrared Emitters and Detectors

Optical Sensors

Infrared Remote Control Receivers

Optocouplers
- Phototransistor, Photodarlington
- Linear
- Phototriac

Resistors & Inductors Segment

Film Resistors
- Metal Film Resistors
- Thin Film Resistors
- Thick Film Resistors
- Power Thick Film Resistors
- Crowbar and Steel Blade Resistors
- Metal Oxide Film Resistors
- Carbon Film Resistors

Wirewound Resistors
- Vitreous, Cemented, and Housed Resistors
- Braking and Neutral Grounding Resistors
- Custom Load Banks

Power Metal Strip® Resistors

Battery Management Shunts

Thermo Fuses

Chip Fuses

Pryotechnic Initiators / Ignitors

Variable Resistors
- Cermet Variable Resistors
- Wirewound Variable Resistors
- Conductive Plastic Variable Resistors
- Contactless Potentiometers
- Hall Effect Position Sensors
- Precision Magnetic Encoders

Networks/Arrays

Non-Linear Resistors
- NTC Thermistors
- PTC Thermistors
- Varistors

Magnetics
- Inductors
- Wireless Charging Coils
- Transformers

Connectors

Capacitors Segment

Tantalum Capacitors
- Molded Chip Tantalum Capacitors
- Coated Chip Tantalum Capacitors
- Solid Through-Hole Tantalum Capacitors
- Wet Tantalum Capacitors

Ceramic Capacitors
- Multilayer Chip Capacitors
- Disc Capacitors

Film Capacitors

• High Speed
• IGBT and MOSFET Driver
Solid-State Relays
LEDs and 7-Segment Displays
Infrared Data Transceiver Modules
Custom Products

Power Capacitors
Heavy-Current Capacitors
Aluminum Capacitors

We promote our ability to provide "one-stop shop" service to customers, whereby they can streamline their design and purchasing processes by ordering multiple types of products from Vishay. Our technical sales force consisting of field application engineers offers customers the complete breadth of the Vishay portfolio for their applications. We aim to use this broad portfolio to increase opportunities to have our components selected and "designed in" to new end products.
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Product Segments

Our products can be divided into two general classes: semiconductors and passive components. Semiconductors are sometimes referred to as "active components" because they require power to function whereas passive components do not require power to function. Our semiconductor and passive components products are further categorized based on their functionality for financial reporting purposes. See Note 15 to our consolidated financial statements for additional information on revenues, income, and total assets by segment.

Semiconductors

Our semiconductor products include MOSFETs, Diodes, and Optoelectronic Components. Semiconductors are typically used to perform functions such as switching, amplifying, rectifying, routing, or transmitting electrical signals, power conversion, and power management.

MOSFETs Segment

Our MOSFETs business includes both the commodity and non-commodity markets in which we believe that we enjoy a good reputation and strong brand recognition (Siliconix). MOSFETs function as solid-state switches to control power in multiple applications, including mobile phones, notebook and desktop computers, tablet computers, digital cameras, televisions, DC/DC and AC/DC switch mode power supplies, solar inverters, automotive and industrial systems. We are a leader in low-voltage TrenchFET MOSFETs and also offer high-voltage MOSFETs. Our MOSFETs product line includes low- and medium-voltage TrenchFET MOSFETs, high-voltage planar MOSFETs, high voltage Super Junction MOSFETs, power integrated circuits (power ICs), and integrated function power devices. We are one of the technology leaders in MOSFETs, with a tradition of innovation in wafer design, packaging, and performance.

Diodes Segment

Our Diodes business is a solid business with a strong market presence in both the commodity and non-commodity markets. The products that comprise our Diodes business represent our broadest product line and include rectifiers, small signal diodes, protection diodes, thyristors/SCRs and power modules. The primary application of rectifiers, found inside the power supplies of virtually all electronic equipment, is to derive DC power from the AC supply. Vishay is the worldwide leader in rectifiers, having a broad technology base and a good position in automotive, industrial, computing and consumer markets. Our rectifier innovations include TMBS® using Trench MOS barrier Schottky rectifier technology, which reduces power loss and improves the efficiency of end systems and eSMP®, the best in class high-current density surface mount packages. Our wide selection of small signal diodes consist of the following functions: switching, tuning, band-switching, RF attenuation and voltage regulation (Zener). They are available in various glass and plastic packaging options and generally are used in electronic circuits, where small currents and high frequencies are involved. Vishay is also one of the market leaders for TVS (transient voltage suppressor) diodes. The portfolio of protection diodes includes ESD protection and EMI filter. Our thyristors or SCR (silicon-controlled rectifiers) are very popular in the industrial high-voltage AC power control applications. The fast growing markets of solar inverter and HEV/EV are the focus of our power modules business (IGBT or MOSFET modules). These modules can be customized to fit in different customer design requirements.

Optoelectronics Components Segment

Our Optoelectronic Components business has a strong market presence in both the commodity and non-commodity markets. Optoelectronic components emit light, detect light, or do both. Our broad range of standard and customer specific optoelectronic components includes infrared ("IR") emitters and detectors, IR remote control receivers, optocouplers, solid-state relays, optical sensors, light-emitting diodes ("LEDs"), 7-segment displays, and IR data transceiver modules (IrDA®). Our IR remote control receivers are designed for use in infrared remote control, data transmission, and light barrier applications in end products including televisions, set-top boxes, notebook computers, and audio systems. We are the leading manufacturer of IR remote control receivers. Our optocouplers electrically isolate input and output signals. Uses include switch-mode power supplies, consumer electronics, telecommunications equipment, solar inverters, and industrial systems. Our IR data transceiver modules are used for short range, two-way, high-speed, and secure wireless data transfer between electronic devices such as home medical appliances, mobile phones, industrial data loggers, and metering. Our LEDs are designed for backlighting and illumination in automotive and other applications. Our LEDs include ultra-bright as well as small surface-mount packages, with products available in all standard colors including white.

Passive components

Our passive components include resistors, capacitors, and magnetics such as inductors and transformers. Passive components are used to store electrical charges, to limit or resist electrical current, and to help in filtering, surge suppression, measurement, timing, and tuning applications.

Resistors and Inductors Segment

Our Resistors and Inductors business is our original business. We maintain the broadest portfolio of resistor products worldwide. The business is solid, predictable, and growing at relatively stable selling prices. We are a market leader with a strong technology base, many specialty products, and strong brand recognition (such as our Dale, Draloric, Beyschlag, Sfernice, and HiRel Systems brands). We focus on higher value markets in specialized industries, while maintaining a complete portfolio of commodity products. We do not aim to be the volume leader in commodity markets.

Resistors are basic components used in all forms of electronic circuitry to adjust and regulate levels of voltage and current. They vary widely in precision and cost, and are manufactured from numerous materials and in many forms. Linear resistive components are classified as variable or fixed, depending on whether or not their resistance is adjustable. Non-linear resistors function by varying in resistance under influence of temperature (thermistors) or voltage (varistors). They can be used in temperature-measuring applications or as current or voltage-limiting devices. We manufacture virtually all types of fixed resistors, both in discrete and network forms, as well as many variable types.

Vishay resistor innovations include Power Metal Strip® technology. These resistors feature very low resistance and are used to measure changes in current flow (current sensing) or divert current flow (shunting).

Inductors use an internal magnetic field to change AC current phase and resist AC current. Inductor applications include controlling AC current and voltage, filtering out unwanted electrical signals, and energy storage. Vishay inductor innovations include IHLP® low-profile, high-current inductor technology with industry-leading specifications, which is patented and generates royalty revenue. Our low-profile, high-current inductors save circuit board space and power in voltage regulator module ("VRM") and DC to DC converter applications. In addition, we are a worldwide leader in custom magnetic solutions focusing on high performance and high reliability. This field has been substantially strengthened, with the 2012 acquisition of HiRel Systems, broadening our portfolio, customer, and market segment reach.

Capacitors Segment

Our Capacitors business consists of a broad range of reliable, high-quality products. We have a strong presence worldwide in specialty markets based on our product performance and reliability and strong brand recognition (including our Sprague, Vitramon, Roederstein, BCcomponents, and ESTA brands). We focus on higher value markets in specialized industries, while maintaining a complete portfolio of commodity products. We do not aim to be the volume leader in commodity markets. Capacitors are used in almost all electronic circuits. They store energy and discharge it when needed. Important applications for capacitors include electronic filtering for linear and switching power supplies; decoupling and bypass of electronic signals for integrated circuits and circuit boards; and frequency control, timing and conditioning of electronic signals for a broad range of applications.

We manufacture products based on all major capacitor technologies: tantalum (molded chip tantalum, coated chip tantalum, solid through-hole tantalum, and wet tantalum), ceramic (multilayer chip and ceramic disc), film, power, heavy-current, and aluminum electrolytic. Our capacitors range from tiny surface-mount devices for hearing aids and mobile devices to large power correction capacitors used in renewable energy, heavy industry, and electrical power grids. We are a recognized technology leader in many product ranges, securing our strong position in military and medical markets, and in a wide range of industrial and automotive applications. Our wet tantalum and MicroTan™ technologies are market leaders.

Military Qualifications

We have qualified certain of our products under various military specifications approved and monitored by United States government agencies, and under certain European military specifications. Qualification levels are based in part upon the rate of failure of products. In order to maintain the classification level of a product, we must continuously perform tests on the product and the results of these tests must be reported to the government agencies. If the product fails to meet the requirements for the applicable classification level, the product's classification may be reduced to a lower level. During the time that the classification level is reduced for a product with military application, net revenues and earnings attributable to that product may be adversely affected.

Manufacturing Operations

In order to better serve our customers, we maintain production facilities in locations where we market the bulk of our products, such as the United States, Germany, and Asia. To optimize production efficiencies, we have whenever practicable established manufacturing facilities in countries, such as the Czech Republic, Hungary, India, Israel, Malaysia, Mexico, the People's Republic of China, and the Philippines, where we can benefit from lower labor and tax costs and also benefit from various government incentives, including grants and tax relief.

One of our most sophisticated manufacturing operations is the production of power semiconductor components. This manufacturing process involves two phases of production: wafer fabrication and assembly (or packaging). Wafer fabrication subjects silicon wafers to various thermal, metallurgical, and chemical process steps that change their electrical and physical properties. These process steps define cells or circuits within numerous individual devices (termed "dies" or "chips") on each wafer. Assembly is the sequence of production steps that divides the wafer into individual chips and encloses the chips in structures (termed "packages") that make them usable in a circuit. Both wafer fabrication and assembly phases incorporate wafer level and device level electrical testing to ensure that device design integrity has been achieved.

In the United States, our manufacturing facilities are located in California, Minnesota, Nebraska, New Hampshire, New York, Rhode Island, South Dakota, Vermont, and Wisconsin. In Asia, our main manufacturing facilities are located in the People's Republic of China, the Republic of China (Taiwan), India, and Malaysia. In Europe, our main manufacturing facilities are located in Germany, France, and the Czech Republic. We have substantial manufacturing facilities in Israel (see "Israeli Operations" below). We also have manufacturing facilities in Austria, Dominican

Republic, Hungary, Italy, Mexico, the Netherlands, Portugal, and the Philippines. Over the past several years, we have invested substantial resources to increase the efficiency of our plants, which we believe will further reduce production costs.

The majority of our manufacturing operations have received ISO 9001 certification and others are actively pursuing such approval. ISO 9001 is a comprehensive set of quality program standards developed by the International Standards Organization.

See Note 15 to our consolidated financial statements for financial information by geographic area.

Sources of Supplies

Although most materials incorporated in our products are available from a number of sources, certain materials, including plastics and metals, are available only from a relatively limited number of suppliers or are subject to significant price volatility.

Silicon wafers are the most important raw material for the manufacturing of our semiconductor products. Silicon wafers are manufactured from high-purity silicon, a metalloid. There have at times been industry-wide shortages of high-purity silicon resulting primarily from growing demand of the electronic component and solar power industries, and limited growth in high-purity silicon manufacturing capacities. Shifts in demand for high-purity silicon and in turn, silicon wafers, have resulted in significant fluctuation in prices of silicon wafers.

We are a major consumer of the world's annual production of tantalum, a metal used in the manufacturing of tantalum capacitors. There are few suppliers that process tantalum ore into capacitor grade tantalum powder. We acquire tantalum powder and wire from all of them under short-term commitments.

Certain materials, in addition to tantalum and including tin, tungsten, and gold are available only from a relatively limited number of suppliers, the source for which may be in the Democratic Republic of the Congo or an adjoining country. We are conducting due diligence on the source and custody of such materials.

Palladium, a metal used to produce multi-layer ceramic capacitors, is currently found primarily in South Africa and Russia. Palladium is a commodity metal that is subject to price volatility. We periodically enter into short-term commitments to purchase palladium.

Certain metals used in the manufacture of our products, such as copper, are traded on active markets, and can be subject to significant price volatility. Our policy is to enter into short-term commitments to purchase defined portions of annual consumption of these metals if market prices decline below budget.

Israeli Operations

We have substantial manufacturing operations in Israel, where we benefit from the government's grant and tax incentive programs. These programs have contributed substantially, predominantly in previous years, to our growth and profitability.

The current benefits derived under these programs are not material to our consolidated results. Because of our significant presence in Israel, the availability of these incentive programs could have a significant positive effect on us if we relocate manufacturing capacity or develop new product lines there. However, there are no substantial plans that would allow us to earn additional benefits.

We could be materially adversely affected if events were to occur in the Middle East that interfered with our operations in Israel. However, we have not experienced any material interruption in our Israeli operations during our 43 years of operations there, in spite of several Middle East crises, including wars.

Inventory and Backlog

We manufacture both standardized products and those designed and produced to meet customer specifications. We maintain an inventory of standardized components and monitor the backlog of outstanding orders for our products.

We include in our backlog only open orders that we expect to ship in the next twelve months. Many of our customers encounter uncertain and changing demand for their products. They typically order products from us based on their forecasts. If demand falls below customers' forecasts, or if customers do not control their inventory effectively, they may cancel or reschedule the shipments included in our backlog, in many instances without the payment of any penalty. Therefore, our backlog at any point in time is not necessarily indicative of the results to be expected for future periods.

Customers and Marketing

We sell our products to original equipment manufacturers ("OEMs"), electronic manufacturing services ("EMS") companies, which manufacture for OEMs on an outsourcing basis, and independent distributors that maintain large inventories of electronic components for resale to OEMs and EMS companies. The distribution of sales by customer type for 2013 is shown below:

Distributors	54%
OEMs	39%
EMS companies	7 %

Our sales organizations are regionally based. While our sales and support procedures are typically similar across all regions, we remain flexible in our ability to offer programs tailored to our customers' specific support requirements in each local area. The aim of our sales organizations is supporting our customers across all product lines, developing new design wins, negotiating pricing and contracts, and providing general commercial support as would normally be expected of a large multi-national sales force.

We have an established Strategic Global Account program, which provides each of our top customers with a dedicated Strategic Global Account Manager. Our Strategic Global Account Managers are typically highly experienced salesmen or saleswomen who are capable of providing key customers with the coordination and management visibility required in a complex multi-product business relationship. They typically coordinate the sales, pricing, contract, logistic, quality, and other aspects of the customer's business requirements. The Strategic Global Account Manager normally is the focal point of communication between Vishay and our main customers. We maintain a similar program for our strategic distributors as well.

We work with our customers so that our products are incorporated into the design of electronic equipment at the earliest stages of development and to provide technical and applications support. In addition to our staff of direct field sales personnel, independent manufacturers' representatives, and distributors, our Business Development group maintains teams of dedicated Field Application Engineers ("FAEs") to assist our customers in solving technical problems and in developing products to meet specific customer application needs using our entire product portfolio to provide support for our customers' engineering needs. Organized by market segment, our Business Development FAEs bring specific knowledge of component applications in their areas of expertise in the automotive, telecommunications, computer, consumer/entertainment, industrial, peripherals, digital consumer, and other market segments. With the ultimate goal of a Vishay "design-in" – the process by which our customers specify a Vishay component in their products – this program offers our customers enhanced access to all Vishay technologies while at the same time increasing design wins, and ultimately sales, for us. Most importantly, the process is closely monitored via a proprietary database developed by our Business Development group. Our database captures specific design activities and allows for real-time measurement of new business potential for our management team.

Our top 30 customers have been relatively stable despite not having long-term commitments to purchase our products. With selected customers, we have signed longer term (greater than one year) contracts for specific products. Net revenues from our top 30 customers represent approximately 70% of our total net revenues. No single customer comprises more than 10% of our total net revenues.

In certain areas we also work with sales representatives. The commission expense for these sales representatives is not material.

Competition

We face strong competition in various product lines from both domestic and foreign manufacturers. Our primary competitors by product type include:

- MOSFETs: Fairchild Semiconductor, Infineon, International Rectifier, NXP Semiconductors, ON Semiconductor, Rohm, STMicroelectronics, Toshiba.

- Diodes: Diodes Inc., Infineon, NXP Semiconductors, ON Semiconductor, STMicroelectronics.

- Optoelectronic Components: Avago, OSRAM Opto Semiconductors, Rohm, Sharp, Toshiba.

- Resistors and Inductors: KOA, Murata, Panasonic, Rohm, TDK-EPCOS, Yageo.

- Capacitors: AVX, KEMET, Murata, Nichicon, Panasonic, TDK-EPCOS, Yageo.

There are many other companies that produce products in the markets in which we compete.

Our competitive position depends on our ability to maintain a competitive advantage on the basis of product quality, know-how, proprietary data, market knowledge, service capability, technological innovation, business reputation, and price competitiveness. Our sales and marketing programs aim to compete by offering our customers a broad range of world-class technologies and products, superior global sales and distribution support, and a secure and multi-location source of product supply.

Research and Development

Many of our products and manufacturing techniques, technologies, and packaging methods have been invented, designed, and developed by Dr. Felix Zandman, our engineers, and our scientists. We maintain strategically placed design centers where proximity to customers enables us to more easily gauge and satisfy the needs of local markets. These design centers are located predominantly in the United States, Germany, Italy, Israel, the People's Republic of China, France, and the Republic of China (Taiwan).

We also maintain research and development personnel and promote programs at a number of our production facilities to develop new products and new applications of existing products and to improve manufacturing processes and technologies. This decentralized system encourages product development at individual manufacturing facilities, closer to our customers.

Patents and Licenses

We have made a significant investment in securing intellectual property protection for our technology and products. We seek to protect our technology by, among other things, filing patent applications for technology considered important to the development of our business. We also rely upon trade secrets, unpatented know-how, continuing technological innovation, and the aggressive pursuit of licensing opportunities to help develop and maintain our competitive position.

Our ability to compete effectively with other companies depends, in part, on our ability to maintain the proprietary nature of our technology. Although we have been awarded, have filed applications for, or have been licensed under, numerous patents in the United States and other countries, there can be no assurance concerning the degree of protection afforded by these patents or the likelihood that pending patents will be issued.

We require all of our technical, research and development, sales and marketing, and management employees and most consultants and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information developed or made known to the entity or individual during the course of the entity's or individual's relationship with us is to be kept confidential and not disclosed to third parties except in specific circumstances. Substantially all of our technical, research and development, sales and marketing, and management employees have entered into agreements providing for the assignment to us of rights to inventions made by them while employed by us.

When we believe other companies are misappropriating our intellectual property rights, we vigorously enforce those rights through legal action, and we intend to continue to do so. See Item 3, "Legal Proceedings."

Although we have numerous United States and foreign patents covering certain of our products and manufacturing processes, no particular patent is considered individually material to our business.

Environment, Health and Safety

We have adopted an Environmental Health and Safety Corporate Policy that commits us to achieve and maintain compliance with applicable environmental laws, to promote proper management of hazardous materials for the safety of our employees and the protection of the environment, and to minimize the hazardous materials generated in the course of our operations. This policy is implemented with accountability directly to the Board of Directors. In addition, our manufacturing operations are subject to various federal, state, and local laws restricting discharge of materials into the environment.

We are involved in environmental remediation programs at various sites currently or formerly owned by us and our subsidiaries both within and outside of the U.S., in addition to involvement as a potentially responsible party ("PRP") at Superfund sites. Certain obligations as a PRP have arisen in connection with business acquisitions. The remediation programs are on-going and the ultimate cost of site cleanup is difficult to predict given the uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations and alternative cleanup methods. See Item 3, "Legal Proceedings."

We are not involved in any pending or threatened proceedings that would require curtailment of our operations. We continually expend funds to ensure that our facilities comply with applicable environmental regulations. While we believe that we are in material compliance with applicable environmental laws, we cannot accurately predict future developments and do not necessarily have knowledge of all past occurrences on sites that we currently occupy. More stringent environmental regulations may be enacted in the future, and we cannot determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with such regulations. Moreover, the risk of environmental liability and remediation costs is inherent in the nature of our business and, therefore, there can be no assurance that material environmental costs, including remediation costs, will not arise in the future.

With each acquisition, we attempt to identify potential environmental concerns and to minimize, or obtain indemnification for, the environmental matters we may be required to address. In addition, we establish reserves for specifically identified potential environmental liabilities. We believe that the reserves we have established are adequate. Nevertheless, we have in the past and may in the future inherit certain pre-existing environmental liabilities, generally based on successor liability doctrines. Although we have never been involved in any environmental matter that has had a material adverse impact on our overall operations, there can be no assurance that in connection with any past or future acquisition we will not be obligated to address environmental matters that could have a material adverse impact on our operations.

Employees

As of December 31, 2013, we employed approximately 22,500 full time employees, of whom approximately 89% were located outside the United States. Our future success is substantially dependent on our ability to attract and retain highly qualified technical and administrative personnel. Some of our employees outside the United States are members of trade unions, and employees at one U.S. facility are represented by a trade union. Our relationship with our employees is generally good. However, no assurance can be given that, if we continue to restructure our operations and/or reduce employee hours in response to changing economic conditions, labor unrest or strikes will not occur.

Company Information and Website

We file annual, quarterly, and current reports, proxy statements, and other documents with the Securities and Exchange Commission ("SEC") under the Securities Exchange Act of 1934. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at Station Place, 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. Also, the SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at http://www.sec.gov.

In addition, our company website can be found on the Internet at www.vishay.com. The website contains information about us and our operations. Copies of each of our filings with the SEC on Form 10-K, Form 10-Q, and Form 8-K, and all amendments to those reports, can be viewed and downloaded free of charge as soon as reasonably practicable after the reports and amendments are electronically filed with or furnished to the SEC. To view the reports, access ir.vishay.com and click on "SEC Filings."

The following corporate governance related documents are also available on our website:

- Corporate Governance Principles
- Code of Business Conduct and Ethics
- Code of Ethics Applicable to the Company's Chief Executive Officer, Chief Financial Officer, Principal Accounting Officer or Controller and Financial Managers
- Audit Committee Charter
- Nominating and Corporate Governance Committee Charter
- Compensation Committee Charter
- Strategic Affairs Committee Charter
- Policy on Director Attendance at Annual Meetings
- Nominating and Corporate Governance Committee Policy Regarding Qualification of Directors
- Procedures for Securityholders' Submissions of Nominating Recommendations
- Securityholder Communications with Directors and Interested Party Communication with Non-Management Directors
- Whistleblower and Ethics Hotline Procedures
- Related Party Transaction Policy

To view these documents, access ir.vishay.com and click on "Corporate Governance."

Any of the above documents can also be obtained in print by any stockholder upon request to our Investor Relations Department at the following address:

Corporate Investor Relations
Vishay Intertechnology, Inc.

63 Lancaster Avenue
Malvern, PA 19355-2143

Item 1A. RISK FACTORS

From time to time, information provided by us, including but not limited to statements in this report, or other statements made by or on our behalf, may contain "forward-looking" information within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements involve a number of risks, uncertainties, and contingencies, many of which are beyond our control, which may cause actual results, performance, or achievements to differ materially from those anticipated. Set forth below are important factors that could cause our results, performance, or achievements to differ materially from those in any forward-looking statements made by us or on our behalf. You should understand that it is not possible to predict or identify all such factors. Consequently, you should not consider the following to be a complete discussion of all potential risks or uncertainties.

Risks relating to our business generally

Our business is cyclical and the periods of decline we recently experienced may resume and may become more pronounced.

The electronic component industry is highly cyclical and experiences periods of decline from time to time. We and others in the electronic component industry have experienced these conditions in the recent past and cannot predict when we may experience such downturns in the future. While we believe that a recovery from the recent global downturn is underway, there is no assurance that the recovery will continue at its current pace or at all, or that the conditions that contributed to the recent recessionary environment have in fact abated. A decline in product demand on a global basis could result in order cancellations and deferrals, lower average selling prices, and a material and adverse impact on our results of operations. These declines in demand are driven by market conditions in the end markets for our products. Changes in the demand mix, needed technologies, and these end markets may adversely affect our ability to match our products, inventory, and capacity to meet customer demand and could adversely affect our operating results and financial condition. A slowdown in demand or recessionary trends in the global economy makes it more difficult for us to predict our future sales and manage our operations, and could adversely impact our results of operations.

We have incurred and will continue to incur restructuring costs and associated asset write-downs.

To remain competitive, particularly when business conditions are difficult, we sometimes attempt to reduce our cost structure by restructuring our existing businesses, where we seek to achieve synergies, eliminate redundant facilities and staff positions, and move operations, where possible, to jurisdictions with lower labor costs. On October 28, 2013, we announced various cost reduction programs as part of our continuous efforts to improve efficiency and operating performance. The programs primarily focus on a plan to enhance the competitiveness of our MOSFETs segment and a voluntary separation / early retirement offer to certain employees Company-wide. We also plan to implement two other smaller cost reduction programs concerning the manufacturing of products within our Diodes segment. The expenses associated with the programs have been and will continue to be recorded as they become recognizable under generally accepted accounting principles ("GAAP"). Complete implementation of all of the programs is expected to occur before the end of the first fiscal quarter of 2016.

Additionally, our long-term strategy includes growing through the integration of acquired businesses, and GAAP requires plant closure and employee termination costs that we incur in connection with our acquisition activities to be recorded as expenses in our consolidated statement of operations, as such expenses are incurred. For this reason, we expect to have some level of future restructuring expenses due to acquisitions.

Our business is cyclical, and in periods of a rising economy we may experience intense demand for our products. If our restructuring activities result in us not being able to satisfy the intense demand from our customers during a rising economy and our competitors sufficiently expand production, we could lose customers and/or market share. These losses could have an adverse effect on our operations, financial condition, and results of operations.

In the past we have grown through successful integration of acquired businesses, but this may not continue.

Our long-term historical growth in revenues and net earnings has resulted in large part from our strategy of expansion through acquisitions. Despite our plan to continue to grow, in part, through targeted acquisitions, we may be unable to continue to identify, have the financial capabilities to acquire, or successfully complete transactions with suitable acquisition candidates. We are subject to various U.S. and foreign competition laws and regulations that may affect our ability to complete certain acquisitions. Also, if an acquired business fails to operate as anticipated, cannot be successfully integrated with our other businesses, or we cannot effectively mitigate the assumed, contingent, and unknown liabilities acquired, our results of operations, financial condition, enterprise value, market value, and prospects could all be materially adversely affected.

Significant fluctuations in interest rates could adversely affect our results of operations and financial position.

We are exposed to changes in interest rates as a result of our borrowing activities and our cash balances. Our credit facility and our exchangeable unsecured notes due 2102 bear interest at variable rates based on LIBOR. A significant increase in LIBOR would significantly increase our interest expense. A general increase in interest rates would be largely offset by an increase in interest income earned on our cash and short-term investment balances, which are currently greater than our debt balances. However, there can be no assurance that the interest rate earned on cash and short-term investments will move in tandem with the interest rate paid on our variable rate debt.

Our debt levels have increased and may continue to increase, which could adversely affect the perception in the financial markets of our financial condition.

The recorded value of our outstanding debt increased from approximately $347 million as of December 31, 2008 to approximately $365 million as of December 31, 2013, primarily due to the issuance of convertible senior debentures, the proceeds from the sale of which we used to fund repurchases of our common stock. The carrying value of our convertible senior debentures will continue to increase as the discount associated with the debentures is amortized. Additionally, we and our subsidiaries may incur substantial additional debt in the future, subject to the conditions contained in our existing debt instruments, some of which may be secured debt. The marketplace could react negatively to our current debt levels which in turn could affect our share price and also make it more difficult to obtain financing in the future.

Future acquisitions could require us to issue additional indebtedness or equity.

If we were to undertake a substantial acquisition for cash, the acquisition would likely need to be financed in part through bank borrowings or the issuance of public or private debt. This acquisition financing would likely decrease our ratio of earnings to fixed charges and adversely affect other leverage criteria. Under our existing credit facility, we are required to obtain the lenders' consent for certain additional debt financing and to comply with other covenants including the application of specific financial ratios. We cannot make any assurances that the necessary acquisition financing would be available to us on acceptable terms if and when required. If we were to undertake an acquisition for equity, the acquisition may have a dilutive effect on the interests of the holders of our common stock.

Our existing credit facility restricts our current and future operations and requires compliance with certain financial covenants.

Our existing credit facility includes restrictions on, among other things, incurring indebtedness, incurring liens on assets, making investments and acquisitions, making asset sales, and paying cash dividends and making other restricted payments. Our existing credit facility also requires us to comply with other covenants, including the maintenance of specific financial ratios. If we are not in compliance with all of such covenants, the credit facility could be terminated by the lenders, and all amounts outstanding pursuant to the credit facility could become immediately payable. Additionally, our exchangeable unsecured notes due 2102 and our convertible senior debentures

due 2040, due 2041, and due 2042 have cross-default provisions that could accelerate repayment in the event the indebtedness under the credit facility is accelerated.

To remain successful, we must continue to innovate, and our investments in new technologies may not prove successful.

Our future operating results are dependent on our ability to continually develop, introduce, and market new and innovative products, to modify existing products, to respond to technological change, and to customize certain products to meet customer requirements. There are numerous risks inherent in this process, including the risks that we will be unable to anticipate the direction of technological change or that we will be unable to develop and market new products and applications in a timely fashion to satisfy customer demands. If this occurs, we could lose customers and experience adverse effects on our financial condition and results of operations.

In addition to our own research and development initiatives, we periodically invest in technology start-up enterprises, in which we may acquire a controlling or noncontrolling interest but whose technology would be available to be commercialized by us. There are numerous risks in investments of this nature including the limited operating history of such start-up entities, their need for capital, and their limited or absence of production experience, as well as the risk that their technologies may prove ineffective or fail to gain acceptance in the marketplace. Certain of our historical investments in start-up companies have not succeeded, and there can be no assurance that our current and future investments in start-up enterprises will prove successful.

Our results are sensitive to raw material availability, quality, and cost.

Many of our products require the use of raw materials that are produced in only a limited number of regions around the world or are available from only a limited number of suppliers. Our results of operations may be materially adversely affected if we have difficulty obtaining these raw materials, the quality of available raw materials deteriorates, or there are significant price increases for these raw materials. The determination that any of the raw materials used in our products are conflict minerals originating from the Democratic Republic of the Congo or adjoining countries could increase the probability that we will encounter the challenges noted above, incur additional expenses to comply with government regulations, and face public scrutiny. For periods in which the prices of these raw materials are rising, we may be unable to pass on the increased cost to our customers, which would result in decreased margins for the products in which they are used. For periods in which the prices are declining, we may be required to write down our inventory carrying cost of these raw materials, because we record our inventory at the lower of cost or market. Depending on the extent of the difference between market price and our carrying cost, this write-down could have a material adverse effect on our results of operations.

From time to time there have been short-term market shortages of certain raw materials used in our products. While these shortages have not historically adversely affected our ability to increase production of products containing these materials, they have historically resulted in higher raw material costs for us. We cannot make any assurances that any of these market shortages in the future would not adversely affect our ability to increase production, particularly during periods of growing demand for our products. To assure availability of raw materials in times of shortage, we may enter into long-term supply contracts for these materials, which may prove costly, unnecessary, and burdensome when the shortage abates.

We may not have adequate facilities to satisfy future increases in demand for our products.

Our business is cyclical and in periods of a rising economy, we may experience intense demand for our products. During such periods, we may have difficulty expanding our manufacturing to satisfy demand. Factors which could limit such expansion include delays in procurement of manufacturing equipment, shortages of skilled personnel, and physical constraints on expansion of our facilities. If we are unable to meet our customers' requirements and our competitors sufficiently expand production, we could lose customers and/or market share. These losses could have an adverse effect on our financial condition and results of operations. Also, capacity that we add during upturns in the business cycle may result in excess capacity during periods when demand for our products recede, resulting in inefficient use of capital which could also adversely affect us.

Our ability to compete effectively with other companies depends, in part, on our ability to maintain the proprietary nature of our technology.

Protection of intellectual property often involves complex legal and factual issues. We will be able to protect our proprietary rights from unauthorized use by third parties only to the extent that our proprietary technologies are covered by valid and enforceable patents or are effectively maintained as trade secrets. We have applied, and will continue to apply, for patents covering our technologies and products, as we deem appropriate. However, our applications may not result in issued patents. Also, our existing patents and any future patents may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products. Others may independently develop similar or alternative technologies, design around our patented technologies, or may challenge or seek to invalidate our patents. Also, the legal system in certain countries in which we operate may not provide or may not continue to provide sufficient, intellectual property legal protections and remedies.

Litigation regarding patent and other intellectual property rights is prevalent in the electronic components industry, particularly the discrete semiconductor sector. We have on occasion been notified that we may be infringing on patent and other intellectual property rights of others. In addition, customers purchasing components from us have rights to indemnification under certain circumstances if such components violate the intellectual property rights of others. Further, we have observed that in the current business environment, electronic component and semiconductor companies have become more aggressive in asserting and defending patent claims against competitors. We will continue to vigorously defend our intellectual property rights, and may become party to disputes regarding patent licensing and cross patent licensing. Although licenses are generally offered in such situations and we have successfully resolved these situations in the past, there can be no assurance that we will not be subject to future litigation alleging intellectual property rights infringement, or that we will be able to obtain licenses on acceptable terms. An unfavorable outcome regarding one of these matters could have a material adverse effect on our business and results of operations.

We face intense competition in our business, and we market our products to an increasingly concentrated group of customers.

Our business is highly competitive worldwide, with low transportation costs and few import barriers. We compete principally on the bases of product quality and reliability, availability, customer service, technological innovation, timely delivery, and price. The electronic component industry has become increasingly concentrated and globalized in recent years and our major competitors, some of which are larger than us, have significant financial resources and technological capabilities.

Our customers have become increasingly concentrated in recent years, and as a result, their buying power has increased and they have had greater ability to negotiate favorable pricing and terms. This trend has adversely affected our average selling prices, particularly for commodity components.

Our backlog is subject to customer cancellation.

Many of the orders that comprise our backlog may be canceled by our customers without penalty. Our customers may on occasion double and triple order components from multiple sources to ensure timely delivery when demand exceeds global supply. They often cancel orders when business is weak and inventories are excessive, a situation that we experienced during the period of economic slowdown. Therefore, we cannot be certain that the amount of our backlog accurately reflects the level of orders that we will ultimately deliver. Our results of operations could be adversely impacted if customers cancel a material portion of orders in our backlog.

Future changes in our environmental liability and compliance obligations may harm our ability to operate or increase our costs.

Our operations, products and/or product packaging are subject to environmental laws and regulations governing air emissions, wastewater discharges, the handling, disposal and remediation of hazardous substances, wastes and certain chemicals used or generated in our manufacturing processes, employee health and safety labeling or other notifications with respect to the content or other aspects of our processes, products or packaging, restrictions on the use of certain materials in or on design aspects of our products or product packaging, and responsibility for disposal of products or product packaging. We establish reserves for specifically identified potential environmental liabilities. Nevertheless, we have in the past and may in the future inherit certain pre-existing environmental liabilities, generally based on successor liability doctrines, or otherwise incur environmental liabilities. We are involved in remediation programs and related litigation at various current and former properties and at third-party disposal sites both within and outside of the U.S., including involvement as a potentially responsible party at Superfund sites. Although we have never been involved in any environmental matter that has had a material adverse impact on our overall operations, there can be no assurance that in connection with any past or future acquisition, future developments, including related to our remediation programs, or otherwise, we will not be obligated to address environmental matters that could have a material adverse impact on our results of operations. In addition, more stringent environmental regulations may be enacted in the future, and we cannot presently determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with these regulations. In order to resolve liabilities at various sites, we have entered into various administrative orders and consent decrees, some of which may be, under certain conditions, reopened or subject to renegotiation.

Our products are sold to or used in goods sold to the U.S. government and other governments. By virtue of such sales, we are subject to various regulatory requirements and risks in the event of non-compliance.

We sell products under prime and subprime contracts with the U.S. government and other governments. Many of these products are used in military applications. Government contractors must comply with specific procurement regulations and other requirements. These requirements, although customary in government contracts, impact our performance and compliance costs. Failure to comply with these regulations and requirements could result in contract modifications or termination, and the assessment of penalties and fines, which could negatively impact our results of operations and financial condition. Our failure to comply with these regulations and requirements could also lead to suspension or debarment, for cause, from government contracting or subcontracting for a period of time. Among the causes for debarment are violations of various statutes, including those related to procurement integrity, export control, government security regulations, employment practices, protection of the environment, accuracy of records and the recording of costs, and foreign corruption. The termination of a government contract as a result of any of these acts could have a negative impact on our results of operations and financial condition and could have a negative impact on our reputation and ability to procure other government contracts in the future.

We have qualified certain of our products under various military specifications approved and monitored by the United States Defense Electronic Supply Center and under certain European military specifications. These products are assigned certain classification levels. In order to maintain the classification level of a product, we must continuously perform tests on the products and the results of these tests must be reported to governmental agencies. If a product fails to meet the requirements of the applicable classification level, its classification may be reduced to a lower level. A decrease in the classification level for a product with a military application could have an adverse impact on the net revenues and earnings attributable to that product.

Our future success is substantially dependent on our ability to attract and retain highly qualified technical, managerial, marketing, finance, and administrative personnel.

Rapid changes in technologies, frequent new product introductions, and declining average selling prices over product life cycles require us to attract and retain highly qualified personnel to develop and manufacture products that feature

technological innovations and bring them to market on a timely basis. Our complex operations also require us to attract and retain highly qualified administrative personnel in functions such as legal, tax, accounting, financial reporting, auditing, and treasury. The market for personnel with such qualifications is highly competitive. While we have employment agreements with certain of our executives, we have not entered into employment agreements with all of our key personnel.

The loss of the services of or the failure to effectively recruit qualified personnel could have a material adverse effect on our business.

Interruptions in our information technology systems could adversely affect our business.

We rely on the efficient and uninterrupted operation of complex information technology systems and networks to operate our business. Any significant system or network disruption, including, but not limited to, new system implementations, computer viruses, security breaches, facility issues or energy blackouts could have a material adverse impact on our operations and results of operations. Such network disruption could result in a loss of the confidentiality of our intellectual property or the release of sensitive competitive information or customer or employee personal data. Any loss of such information could harm our competitive position, result in a loss of customer confidence, and cause us to incur significant costs to remedy the damages caused by the disruptions or security breaches. We have implemented protective measures to prevent against and limit the effects of system or network disruptions, but there can be no assurance that such measures will be sufficient to prevent or limit the damage from any future disruptions and any such disruption could have a material adverse impact on our business and results of operations.

Third-party service providers, such as foundries, subcontractors, distributors, and vendors have access to certain portions of our sensitive data. In the event that these service providers do not properly safeguard our data that they hold, security breaches and loss of our data could result. Any such loss of data by our third-party service providers could have a material adverse impact on our business and results of operations.

Risks relating to Vishay's operations outside the United States

We are subject to the risks of political, economic, and military instability in countries outside the United States in which we operate.

We have substantial operations outside the United States, and approximately 75% of our revenues during 2013 were derived from sales to customers outside the United States. Certain of our assets are located, and certain of our products are produced, in countries which are subject to risks of social, political, economic, and military instability. This instability could result in wars, riots, nationalization of industry, currency fluctuation, and labor unrest. These conditions could have an adverse impact on our ability to operate in these regions and, depending on the extent and severity of these conditions, could materially and adversely affect our overall financial condition, results of operations, and our ability to access our liquidity.

Our business has been in operation in Israel for 43 years, where we have substantial manufacturing operations. Although we have never experienced any material interruption in our operations attributable to these factors, in spite of several Middle East crises, including wars, our financial condition and results of operations might be adversely affected if events were to occur in the Middle East that interfered with our operations in Israel.

Our global operations are subject to extensive anti-corruption laws and other regulations.

The U.S. Foreign Corrupt Practices Act and similar foreign anti-corruption laws generally prohibit companies and their intermediaries from making improper payments or providing anything of value to improperly influence foreign government officials for the purpose of obtaining or retaining business, or obtaining an unfair advantage. Recent years have seen a substantial increase in the global enforcement of anti-corruption laws. Our continued operation and expansion outside the United States, including in developing countries, could increase the risk of such violations or violations under other regulations relating to limitations on or licenses required for sales made to customers located in certain countries. Violations of these laws may result in severe criminal or civil sanctions, could disrupt our business, and result in a material adverse effect on our reputation, business and results of operations or financial condition.

We obtain substantial benefits by operating in Israel, but these benefits may not continue.

We have substantial manufacturing operations in Israel, where we benefit from the Israeli government's grant and tax incentive programs. These programs have contributed substantially, predominantly in previous years, to our growth and profitability. There can also be no assurance that in the future the Israeli government will continue to offer new grant and tax incentive programs applicable to us or that, if it does, such programs will provide the same level of benefits we have historically received or that we will continue to be eligible to benefit from them. Any significant increase in the Israeli tax rates or reduction or elimination of the Israeli grant programs that have benefited us could have an adverse impact on our results of operations.

We attempt to improve profitability by controlling labor costs, but these activities could result in labor unrest or considerable expense.

Historically, our primary labor cost controlling strategy was to transfer manufacturing operations to countries with lower production costs, such as the Czech Republic, Hungary, India, Israel, Malaysia, Mexico, the People's Republic of China, and the Philippines. We believe that our manufacturing footprint is suitable to serve our customers and end markets, while maintaining lower manufacturing costs. Except for the distinct and targeted restructuring programs announced in the fourth fiscal quarter of 2013, we do not anticipate further transferring any significant existing operations to lower-labor-cost countries; however, acquired operations may be transferred to lower-labor-cost countries when integrated into Vishay. Currently, our primary labor cost controlling strategy involves reducing hours and limiting the use of subcontractors and foundries when demand for our products decreases. Shifting operations to lower-labor-cost countries, reducing hours, or limiting the use of subcontractors and foundries could result in production inefficiencies, higher costs, and/or strikes or other types of labor unrest.

We are subject to foreign currency exchange rate risks which may impact our results of operations.

We are exposed to foreign currency exchange rate risks, particularly due to market values of transactions in currencies other than the functional currencies of certain subsidiaries. From time to time, we utilize forward contracts to hedge a portion of projected cash flows from these exposures. As of December 31, 2013, we did not have any outstanding foreign currency forward exchange contracts.

Our significant foreign subsidiaries are located in Germany, Israel, and Asia. We finance our operations in Europe and certain locations in Asia in local currencies. Our operations in Israel and most significant locations in Asia are largely financed in U.S. dollars, but these subsidiaries also have significant transactions in local currencies. Our exposure to foreign currency risk is mitigated to the extent that the costs incurred and the revenues earned in a particular currency offset one another. Our exposure to foreign currency risk is more pronounced in situations where, for example, production labor costs are predominantly paid in local currencies while the sales revenue for those products is denominated in U.S. dollars. This is particularly the case for products produced in Israel, the Czech Republic, and China.

A change in the mix of the currencies in which we transact our business could have a material effect on results of operations. Furthermore, the timing of cash receipts and disbursements could have a material effect on our results of operations, particularly if there are significant changes in exchange rates in a short period of time.

Approximately 98% of our cash and cash equivalents and short-term investments balances were held by our non-U.S. subsidiaries.

We generate a significant amount of cash and profits from our non-U.S. subsidiaries. As of December 31, 2013, $1,132 million of our cash and cash equivalents and short-term investments were held in countries outside of the United States. At the present time, we expect the cash and profits generated by foreign subsidiaries will continue to be reinvested outside of the United States indefinitely. Accordingly, no provision has been made for U.S. federal and

state income taxes on these foreign earnings. If cash is needed to be repatriated to the United States, in addition to various foreign country laws regulating the exportation of the cash and profits, we would be subject to additional U.S. income taxes (subject to an adjustment for foreign tax credits), state income taxes, incremental foreign income taxes, and withholding taxes payable to various foreign countries.

Risks related to our capital structure

The holders of our Class B common stock have effective voting control of our company.

We have two classes of common stock: common stock and Class B common stock. The holders of common stock are entitled to one vote for each share held, while the holders of Class B common stock are entitled to 10 votes for each share held. At December 31, 2013, the holders of Class B common stock held approximately 47.3% of the voting power of Vishay. The ownership of Class B common stock is highly concentrated, and holders of Class B common stock effectively can cause the election of directors and approve other actions as stockholders without the approval of our other stockholders. As a result of the passing of our founder and former Executive Chairman, Dr. Felix Zandman, Mrs. Ruta Zandman (a member of our Board of Directors) controls the voting of, solely or on a shared basis with Marc Zandman (our Executive Chairman) and Ziv Shoshani (a member of our Board of Directors), approximately 89.4% of our Class B common stock, representing 42.4% of the total voting power of our capital stock as of December 31, 2013.

We have a staggered board of directors which could make a takeover of Vishay difficult.

Our staggered board of directors might discourage, delay, or prevent a change in control of our company by a third party and could discourage proxy contests and make it more difficult for stockholders to elect directors and take other corporate actions. Also, as a consequence of our staggered board, directors may not be removed without cause, even though a majority of stockholders may wish to do so.

Our reluctance to issue substantial additional shares in order not to dilute the interests of our existing stockholders could impede growth.

Our overall long-term business strategy has historically included a strong focus on acquisitions financed alternatively through cash on hand, the incurrence of indebtedness, and the issuance of equity, directly or indirectly by refinancing acquisition debt. We may in the future be presented with attractive investment or strategic opportunities that, because of their size and our financial condition at the time, would require the issuance of substantial additional amounts of our common stock. Some or all of our holders of Class B common stock may exert considerable influence over our policies, business and affairs, and in any corporate transaction or other matter, including those described above. If such opportunities were to arise, our Board of Directors may consider the potentially dilutive effect on the interests and voting power of our existing stockholders, including our Class B stockholders. Any resulting reluctance to issue additional shares could impede our future growth.

Our outstanding convertible debentures and exchangeable notes may impact the trading price of our common stock.

We believe that many investors in, and potential purchasers of, convertible or exchangeable debt instruments employ, or seek to employ, a convertible arbitrage strategy with respect to these instruments. Investors that employ a convertible arbitrage strategy with respect to convertible or exchangeable debt instruments typically implement that strategy by selling short the common stock underlying the convertible or exchangeable instrument and dynamically adjusting their short position while they hold the instrument. The implementation of this strategy by investors in our convertible debentures and exchangeable notes, as well as related market regulatory actions, could have a significant impact on the trading prices of our common stock, and the trading prices and liquidity of our convertible debentures and exchangeable notes. The price of our common stock and our convertible debentures and exchangeable notes could also be affected by possible sales of our common stock by investors who view our convertible debentures or exchangeable notes as more attractive means of equity participation in us.

Risks related to the spin-off of the Vishay Precision Group

If the VPG spin-off transaction is determined to be taxable for income tax purposes, we and our stockholders that are subject to U.S. federal, state or local income tax could incur substantial income tax liabilities.

The VPG spin-off transaction was conditioned upon Vishay's receipt of a private letter ruling from the Internal Revenue Service (the "IRS") and an opinion of tax counsel (the "Opinion") confirming that the VPG spin-off transaction should qualify as tax-free to us and our stockholders. The ruling and opinions rely on certain facts, assumptions, and representations from us regarding the past and future conduct of the companies' businesses and other matters. Any inaccuracy in these facts, assumptions, or representations could invalidate the ruling, and we and our stockholders could be subject to substantial income tax liabilities.

Notwithstanding the private letter ruling and Opinion, the IRS or state or local tax authorities (collectively with the IRS, the "Tax Authorities") could determine on audit that the VPG spin-off transaction should be treated as a taxable transaction if the Tax Authorities determine that any of these facts, assumptions, or representations are not correct or have been violated, or for other reasons, including as a result of significant changes in the stock ownership of our company or VPG after the spin-off.

Under the tax matters agreement between our company and VPG, VPG generally would be required to indemnify our company against its taxes resulting from the failure of the VPG spin-off transaction to qualify as tax-free ("Transaction Taxes") as a result of (i) any action by VPG or any of its affiliates following the completion of the spin-off that would reasonably be expected to prevent the spin-off from qualifying as a tax-free transaction to us and our stockholders (ii) any action by VPG or its affiliates following the completion of the spin-off that would be inconsistent with any material information or representation made in connection with the private letter ruling obtained by us from the IRS and/or with the Opinion or (iii) certain other actions taken by VPG. However, in the event that Transaction Taxes are incurred for any other reason, we would not be entitled to indemnification.

In addition, due to the potential impact of significant stock ownership changes on the taxability of the spin-off to us, we and VPG may determine not to enter into transactions that might otherwise be advantageous, such as issuing equity securities to satisfy financing needs or acquiring businesses or assets with equity securities, if such issuances would exceed certain thresholds and such actions could be considered part of a plan or series of related transactions that include the spin-off.

Vishay Precision Group is using the Vishay name under license from us, which could result in product and market confusion or the loss of certain of our rights to the Vishay name.

VPG has a worldwide, perpetual and royalty-free license from us to use the "Vishay" mark as part of its corporate name and in connection with the manufacture, sale, and marketing of the products and services that comprise its measurements and foil resistors businesses. The license of the Vishay name to VPG is important because we anticipate that the success of VPG will depend in no small measure on the reputation of the Vishay brand for these products and services built over many years. Nonetheless, there exists the risk that the use by VPG could cause confusion in the marketplace over the products of the two companies, that any negative publicity associated with a product or service of VPG following the spin-off could be mistakenly attributed to our company or that we could lose our own rights to the "Vishay" mark if we fail to impose sufficient controls on VPG's use of the mark.

General Economic and Business Risks

In addition to the risks relating specifically to our business, a variety of other factors relating to general conditions could cause actual results, performance, or achievements to differ materially from those expressed in any of our forward-looking statements. These factors include:

- overall economic and business conditions;
- competitive factors in the industries in which we conduct our business;
- changes in governmental regulation;
- changes in tax requirements, including tax rate changes, new tax laws, and revised tax law interpretations;
- changes in GAAP or interpretations of GAAP by governmental agencies and self-regulatory groups;
- interest rate fluctuations, foreign currency rate fluctuations, and other capital market conditions; and
- economic and political conditions in international markets, including governmental changes and restrictions on the ability to transfer capital across borders.

Our common stock, traded on the New York Stock Exchange, has in the past experienced, and may continue to experience, significant fluctuations in price and volume. We believe that the financial performance and activities of other publicly traded companies in the electronic component industry could cause the price of our common stock to fluctuate substantially without regard to our operating performance.

We operate in a continually changing business environment, and new factors emerge from time to time. Other unknown and unpredictable factors also could have a material adverse effect on our future financial condition and results of operations.

Item 1B. UNRESOLVED STAFF COMMENTS

None.

Item 2. PROPERTIES

At December 31, 2013, our business had 49 manufacturing locations. Our manufacturing facilities include owned and leased locations. Some locations include both owned and leased facilities in the same location. The list of manufacturing facilities below excludes manufacturing facilities that are presently idle due to our restructuring activities. See Note 4 to our consolidated financial statements for further information related to our restructuring efforts, as well as additional information in "Cost Management" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

In the opinion of management, our properties and equipment generally are in good operating condition and are adequate for our present needs. Owning many of our manufacturing facilities provides us meaningful financial and operating benefits, including long-term stability and a necessary buffer for economic downturns. We do not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities.

The principal locations of our owned manufacturing facilities, along with available space including administrative offices, are as follows:

Owned Locations	Business Segment	Approx. Available Space (Square Feet)
United States		
Santa Clara, CA	MOSFETs	227,000
Columbus, NE	Resistors & Inductors	158,000
Yankton, SD	Resistors & Inductors	58,000
Warwick, RI	Resistors & Inductors	55,000
Bennington, VT	Capacitors	54,000
Niagara Falls, NY	Resistors & Inductors	38,000
Marshall, MN	Resistors & Inductors	22,000
Non-U.S.		
Israel		
Dimona	Resistors & Inductors and Capacitors	404,000
Migdal Ha'Emek	Capacitors	288,000
Be'er Sheva	Resistors & Inductors and Capacitors	276,000
People's Republic of China		
Tianjin	Diodes	374,000
Shanghai	Optoelectronic Components	195,000
Xi'an	MOSFETS and Diodes	121,000
Germany		
Selb	Resistors & Inductors and Capacitors	306,000
Heide	Resistors & Inductors	161,000
Landshut	Capacitors	72,000
Fichtelberg	Resistors & Inductors	24,000
Czech Republic		
Blatna	Capacitors	191,000
Dolni Rychnov	Resistors & Inductors and Capacitors	182,000
Prachatice	Resistors & Inductors	91,000
Volary	Resistors & Inductors	35,000
Melaka, Malaysia	Optoelectronic Components	480,000

Republic of China (Taiwan)		
Taipei	Diodes	366,000
Kaohsiung	MOSFETs	52,000
France		
Nice	Resistors & Inductors	215,000
Chateau Gontier	Resistors & Inductors	84,000
Hyeres	Resistors & Inductors	65,000

Owned Locations (continued)	Business Segment	Approx. Available Space (Square Feet)
Loni, India	Resistors & Inductors and Capacitors	350,000
Zwolle, Netherlands	Capacitors	283,000
Famalicao, Portugal	Capacitors	167,000
Vocklabruck, Austria	Diodes	153,000
Manila, Philippines	Diodes and Optoelectronic Components	144,000
Turin, Italy	Diodes	127,000
Budapest, Hungary	Diodes	116,000
Juarez, Mexico	Resistors & Inductors	57,000

The principal locations of our leased manufacturing facilities, along with available space including administrative offices, are as follows:

Leased Locations	Business Segment	Approx. Available Space (Square Feet)
United States		
Ontario, CA	Resistors & Inductors	46,000
Milwaukee, WI	Resistors & Inductors	42,000
Dover, NH	Resistors & Inductors	35,000
Duluth, MN	Resistors & Inductors	10,000
Non-U.S.		
People's Republic of China		
Danshui	Capacitors	446,000
Shanghai	MOSFETS	217,000
Zhuhai	Resistors & Inductors	129,000
Klagenfurt, Austria	Capacitors	130,000
Juarez, Mexico	Resistors & Inductors	128,000
Germany		
Itzehoe	MOSFETs	207,000
Heilbronn	Diodes and Optoelectronic Components	48,000
Mumbai, India	Diodes	34,000
Santo Domingo, Dominican Republic	Resistors & Inductors	16,000
Prestice, Czech Republic	Resistors & Inductors	13,000

Item 3. LEGAL PROCEEDINGS

From time to time we are involved in routine litigation incidental to our business. Management believes that such matters, either individually or in the aggregate, should not have a material adverse effect on our business or financial condition.

Intellectual Property Matters

We are engaged in discussions with various parties regarding patent licensing and cross patent licensing issues. In addition, we have observed that in the current business environment, electronic component and semiconductor companies have become more aggressive in asserting and defending patent claims against competitors. We will

continue to vigorously defend our intellectual property rights, and we may become party to disputes regarding patent licensing and cross patent licensing. An unfavorable outcome regarding one of these intellectual property matters could have a material adverse effect on our business and operating results.

When we believe other companies are misappropriating our intellectual property rights, we vigorously enforce those rights through legal action, and we intend to continue to do so. During the past few years, we settled several suits which we had initiated to enforce our intellectual property rights. We are receiving royalties on sales of these companies' products which use our technology. We are continuing to assert our legal rights against other parties which we believe are misappropriating our intellectual property rights.

Siliconix Stockholder Matters

Proctor Litigation

In January 2005, an amended class action complaint was filed in the Superior Court of California on behalf of all non-Vishay stockholders of Siliconix against Vishay, Ernst & Young LLP (the independent registered public accounting firm that audits the Company's financial statements), Dr. Felix Zandman, former Executive Chairman and Chief Technical and Business Development Officer of Vishay, and as a nominal defendant, Siliconix. The suit made various claims against Vishay and the other defendants for actions allegedly taken in respect of Siliconix during the period when Vishay owned an 80.4% interest in Siliconix. The action, which we refer to as the Proctor litigation on account of the lead plaintiff, sought injunctive relief and unspecified damages.

In May 2005, Vishay successfully completed a tender offer to acquire all shares of Siliconix that were not already owned by Vishay. Following the announcement of Vishay's intent to make this tender offer, several purported class-action complaints were filed in the Delaware Court of Chancery. These actions were consolidated into a single class action and a settlement agreement was reached with the plaintiffs, who effectively represented all non-Vishay stockholders of Siliconix. The settlement agreement was approved by the Delaware Court of Chancery in October 2005.

The plaintiffs in the Proctor litigation filed an amended complaint in the Superior Court of California in November 2005. In June 2006, the Delaware Court of Chancery issued a permanent injunction restraining the Proctor plaintiffs from prosecuting the Proctor action. An appeal of the injunction order brought by a former stockholder of Siliconix was dismissed by the Delaware Supreme Court in January 2007.

In June 2006, the Proctor litigation was removed from the Superior Court of California to federal District Court. The District Court granted a motion by Ernst & Young to dismiss the complaint and a motion by Vishay for summary judgment, effective October 15, 2007. The plaintiffs appealed to the Ninth Circuit Court of Appeals and on October 9, 2009, the Court of Appeals affirmed the dismissal of Proctor's class action claim and remanded the remaining two claims to state court. On July 26, 2011, the Superior Court dismissed the remaining claims against Vishay with prejudice. On September 20, 2011, the plaintiffs filed a notice of appeal. On December 11, 2012, the Court of Appeal of the State of California, Sixth Appellate District, heard oral arguments from the parties on the matter. On February 19, 2013, the Court of Appeal affirmed the Superior Court's dismissal of the remaining claims. On April 2, 2013 the plaintiffs filed a petition for review with the Supreme Court of the State of California requesting that the Supreme Court of California review the decision of the Court of Appeal of the State of California affirming the Superior Court's dismissal of the Proctor Litigation. Vishay opposed this petition. The Supreme Court of California denied the plaintiff's petition to review the case on June 12, 2013.

Environmental Matters

Vishay is involved in environmental remediation programs at various sites currently or formerly owned by Vishay and its subsidiaries both within and outside of the U.S., in addition to involvement as a potentially responsible party ("PRP") at Superfund sites. Certain obligations as a PRP have arisen in connection with business acquisitions. The remediation programs are on-going and the ultimate cost of site cleanup is difficult to predict given the uncertainties regarding the extent of the required cleanup, the interpretation of applicable laws and regulations, and alternative cleanup methods. See also Note 13 to our consolidated financial statements.

Item 4. MINE SAFETY DISCLOSURES

None.

EXECUTIVE OFFICERS OF THE REGISTRANT

The following table sets forth certain information regarding our executive officers as of February 19, 2014:

Name	Age	Positions Held
Marc Zandman*	52	Executive Chairman of the Board, Chief Business Development Officer, and President, Vishay Israel Ltd.
Dr. Gerald Paul*	65	Chief Executive Officer, President, and Director
Lori Lipcaman	55	Executive Vice President and Chief Financial Officer
Dieter Wunderlich	61	Executive Vice President and Chief Operating Officer
Johan Vandoorn	56	Executive Vice President and Chief Technical Officer
David Valletta	53	Executive Vice President Worldwide Sales

* Member of the Executive Committee of the Board of Directors.

Marc Zandman was appointed Executive Chairman of the Board and Chief Business Development Officer effective June 5, 2011. Mr. Zandman has served as a Director of Vishay since 2001 and President of Vishay Israel Ltd. since 1998. Mr. Zandman previously was Vice Chairman of the Board from 2003 to June 2011, and Chief Administration Officer from 2007 to June 2011. Mr. Zandman was Group Vice President of Vishay Measurements Group from 2002 to 2004. Mr. Zandman has served in various other capacities with Vishay since 1984. He is the son of the late Dr. Felix Zandman, Vishay's Founder. Mr. Zandman controls, on a shared basis with Ruta Zandman and Ziv Shoshani, approximately 31.2% of the total voting power of our capital stock as of December 31, 2013. He also is non-executive Chairman of Vishay Precision Group, Inc., an independent, publicly-traded company spun-off from Vishay Intertechnology in 2010.

Dr. Gerald Paul was appointed Chief Executive Officer effective January 1, 2005. Dr. Paul has served as a Director of the Company since 1993, and has been President of the Company since March 1998. Dr. Paul also was Chief Operating Officer from 1996 to 2006. Dr. Paul previously was an Executive Vice President of the Company from 1996 to 1998, and President of Vishay Electronic Components, Europe from 1994 to 1996. Dr. Paul has been Managing Director of Vishay Electronic GmbH, a subsidiary of the Company, since 1991. Dr. Paul has been employed by Vishay and a predecessor company since 1978.

Lori Lipcaman was appointed Executive Vice President and Chief Financial Officer of the Company effective September 1, 2011. Ms. Lipcaman had been appointed Executive Vice President Finance and Chief Accounting Officer in September 2008. Previously, she served as Vishay's Corporate Senior Vice President, Operations Controller, from March 1998 to September 2008. Prior to that, she served in various positions of increasing responsibility in finance and controlling since joining the Company in May 1989.

Dieter Wunderlich was appointed Executive Vice President and Chief Operating Officer effective August 1, 2011. Mr. Wunderlich has held various positions of increasing responsibility since Vishay's acquisition of Draloric Electronic GmbH ("Draloric") in 1987, including Executive Vice President – Semiconductors (2009 – 2012). Mr. Wunderlich's experience with Vishay includes worldwide or regional operations leadership roles within each of Vishay's five business reporting segments. Mr. Wunderlich had been employed by Draloric since 1975.

Johan Vandoorn was appointed Executive Vice President and Chief Technical Officer effective August 1, 2011. Mr. Vandoorn is responsible for Vishay's technical development and internal growth programs. Mr. Vandoorn has held various positions of increasing responsibility since Vishay's acquisition of BCcomponents Holdings BV ("BCcomponents") in 2002, including Executive Vice President – Passive Components (2006 – 2012). Mr. Vandoorn had been Vice President – Global Operations of BCcomponents from 2000 until its acquisition by Vishay, and previously worked for Philips Components ("Philips") from 1980 until Philips sold the BCcomponents business to a private equity firm in 1998.

David Valletta serves as Vishay's Executive Vice President – Worldwide Sales, a position he has held since 2007. Mr. Valletta has held various positions of increasing responsibility since Vishay's acquisition of Vitramon in 1994. Prior to joining Vitramon, Mr. Valletta also worked for AVX Corporation. His experience with Vishay includes various positions within the Americas region in direct and distribution sales management and global sales responsibility for the Company's key strategic customers.

PART II

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

Our common stock is listed on the New York Stock Exchange under the symbol VSH. The following table sets forth the high and low sales prices for our common stock as reported on the New York Stock Exchange composite tape for the indicated fiscal quarters. Holders of record of our common stock totaled approximately 1,100 at February 17, 2014. Because many of the shares of our common stock are held by brokers and other institutions on behalf of stockholders, we are unable to estimate the total number of beneficial owners represented by these stockholders of record.

The following table sets forth, for the indicated periods, the high and low sales prices of our common stock.

	2013			2012	
	High	Low		High	Low
Fourth quarter	$13.55	$11.98	Fourth quarter	$10.63	$8.21
Third quarter	$15.39	$11.93	Third quarter	$11.04	$8.10
Second quarter	$15.14	$11.54	Second quarter	$12.65	$8.76
First quarter	$13.98	$10.19	First quarter	$13.52	$9.14

At February 17, 2014, we had outstanding 12,129,227 shares of Class B common stock, par value $.10 per share, each of which entitles the holder to ten votes. The Class B common stock generally is not transferable except in certain very limited instances, and there is no market for those shares. The Class B common stock is convertible, at the option of the holder, into common stock on a share for share basis. As a result of the passing of our founder and former Executive Chairman, Dr. Felix Zandman, Mrs. Ruta Zandman (a member of our Board of Directors) controls the voting of, solely or on a shared basis with Marc Zandman (our Executive Chairman) and Ziv Shoshani (a member of our Board of Directors), approximately 89.4% of our Class B common stock, representing 42.4% of the total voting power of our capital stock.

On February 3, 2014, our Board of Directors instituted a quarterly dividend payment program and declared the first cash dividend in the history of Vishay. The initial cash dividend of $0.06 per share of common stock and Class B common stock will be paid on March 27, 2014 to stockholders of record at the close of business on March 3, 2014. The amount and timing of any future dividends remains subject to authorization of our Board of Directors. Certain of

our debt obligations contain restrictions as to the payment of cash dividends. See "Financial Condition, Liquidity, and Capital Resources" included in Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations."

Stock Performance Graph

The line graph below compares the cumulative total stockholder return on Vishay's common stock over a 5-year period with the returns on the Standard & Poor's MidCap 400 Stock Index (of which Vishay is a component), the Standard & Poor's 500 Stock Index, and a peer group of companies selected by our management. The peer group is made up of five publicly-held manufacturers of semiconductors, resistors, capacitors, and other electronic components.* Management believes that the product offerings of the companies contained in the peer group are more similar to our product offerings than those of the companies contained in any published industry index. The return of each peer issuer has been weighted according to the respective issuer's stock market capitalization. The line graph assumes that $100 had been invested at December 31, 2008 and assumes that all dividends were reinvested. The cash equivalent of the shares received in the spin-off of VPG is included in Vishay's results below.

	Base Period	Years Ending December 31,				
Company Name / Index	2008	2009	2010	2011	2012	2013
Vishay Intertechnology, Inc.	100	244.15	466.69	285.80	337.94	421.55
S&P 500 Index	100	126.46	145.51	148.59	172.37	228.19
S&P MidCap 400 Index	100	137.38	173.98	170.96	201.53	269.04
Peer Group*	100	200.94	257.63	194.98	184.01	219.66

* AVX Corporation, Fairchild Semiconductor International Inc., International Rectifier Corporation, KEMET Corporation, and ON Semiconductor Corporation.

Item 6. SELECTED FINANCIAL DATA

The following table sets forth selected consolidated financial information as of and for the fiscal years ended December 31, 2013, 2012, 2011, 2010, and 2009. This table should be read in conjunction with our consolidated financial statements and the related notes thereto included elsewhere in this Form 10-K (in thousands, except per share amounts):

	As of and for the years ended December 31,				
	2013 (1)	2012 (2)	2011 (3)	2010 (4)	2009 (5)
Statement of Operations Data:					
Net revenues	$2,370,979	$2,230,097	$2,594,029	$2,725,092	$2,042,033
Costs of products sold	1,803,719	1,703,424	1,874,043	1,917,607	1,653,872
Gross profit	567,260	526,673	719,986	807,485	388,161
Selling, general, and administrative expenses	368,542	349,625	367,623	389,547	359,162
Restructuring and severance costs	2,814	-	-	-	37,874
Executive compensation charges (credit)	(1,778)	-	5,762	-	57,824
Gain on sale of property	-	(12,153)	-	-	-
Asset write-downs	-	-	-	-	681
Unusual items	-	-	-	-	(28,195)
Operating income (loss)	197,682	189,201	346,601	417,938	(39,185)
Other income (expense)					
Interest expense	(23,130)	(22,604)	(19,277)	(11,036)	(10,321)
Other	1,853	3,440	3,792	(1,369)	9,791
Total other income (expense)	(21,277)	(19,164)	(15,485)	(12,405)	(530)
Income (loss) before taxes and noncontrolling interest	176,405	170,037	331,116	405,533	(39,715)
Income taxes	52,636	46,506	91,119	45,240	16,800
Net earnings (loss)	123,769	123,531	239,997	360,293	(56,515)
Noncontrolling interest	789	793	1,176	1,187	673
Net earnings (loss) attributable to Vishay stockholders	$122,980	$122,738	$238,821	$359,106	$(57,188)
Basic earnings (loss) per share attributable to Vishay stockholders:	$0.85	$0.82	$1.49	$1.96	$(0.31)
Diluted earnings (loss) per share attributable to Vishay stockholders:	$0.81	$0.79	$1.42	$1.89	$(0.31)
Weighted average shares outstanding – basic	144,856	149,020	160,094	183,618	186,605
Weighted average shares outstanding – diluted	151,417	155,844	168,514	190,227	186,605
Balance Sheet Data:					
Total assets	$3,237,139	$3,016,277	$2,993,730	$2,966,093	$2,719,546
Long-term debt, less current portion	364,911	392,931	399,054	431,682	320,052
Working capital	1,531,615	1,379,093	1,390,888	1,267,343	1,000,042
Total Vishay stockholders' equity	1,872,756	1,623,328	1,603,006	1,491,731	1,516,446

(1) Includes the results of MCB Industrie, from June 13, 2013. Also includes a net pretax reversal of stock-based compensation expense recognized for the performance-based RSUs scheduled to vest on January 1, 2014, which were originally reported as a separate line item upon the cessation of employment of certain former executive officers in 2011 of $1,778,000, a $2,867,000 one-time tax benefit due to a new law enacted in Israel in July 2013 which effectively increases the corporate income tax rate on certain types of income earned after January 1, 2014, and, therefore, increases our deferred tax assets, a $1,330,000 one-time tax benefit due to the retroactive enactment of the American Taxpayer Relief Act of 2012 that was signed into law on January 2, 2013, partially offset by $2,814,000 of restructuring and severance costs. These items, net of their related tax consequences, had a positive $0.02 effect on earnings per share attributable to Vishay stockholders. These items are more fully described in the notes to the consolidated financial statements.

(2) Includes the results of HiRel Systems LLC from January 13, 2012. Also includes net pretax gain on the sale of property in Belgium vacated as a result of restructuring in prior years of $12,153,000 and a $4,036,000 one-time tax benefit related to the release of deferred tax valuation allowances in Israel following a merger of several of our wholly-owned subsidiaries in Israel which will allow for the realization of these tax benefits. These items, net of their related tax consequences, had a positive $0.08 effect on earnings per share attributable to Vishay stockholders. These items are more fully described in the notes to the consolidated financial statements.

(3) Includes the results of the resistor businesses of Huntington Electric from September 28, 2011. Also includes net pretax charges of $5,762,000 to accelerate the recognition of certain executive compensation expenses upon the passing of our founder and former Executive Chairman of the Board, Dr. Zandman, and for elements of executive compensation payable upon the resignation of our former Chief Financial Officer, Dr. Lior Yahalomi. Also includes $10,024,000 of one-time tax expense related to the write-down of deferred tax assets in Israel to reflect the lower corporate income tax rate enacted in January 2011 on certain types of income earned after December 31, 2010 and $6,538,000 of one-time tax benefits recorded in the fourth fiscal quarter primarily related to the release of deferred tax valuation allowances in various jurisdictions. These items, net of their related tax consequences, had a negative $0.04 effect on earnings per share attributable to Vishay stockholders. These items are more fully described in the notes to the consolidated financial statements.

(4) Includes the results of operations of VPG through the date of the spin-off, July 6, 2010. VPG contributed $101,089,000 of net revenues, $9,716,000 of income before taxes, $5,811,000 of net earnings attributable to Vishay stockholders, and $0.03 per diluted share attributable to Vishay stockholders to our results in 2010. Also includes a $59,484,000 one-time tax benefit recorded in the fourth fiscal quarter of 2010, which had a $0.31 effect on earnings per share attributable to Vishay stockholders.

(5) Includes net pretax charges of $96,379,000 for restructuring and severance costs, asset write-downs, and executive compensation charges. These charges were partially offset by a $28,195,000 settlement agreement gain. These items, net of their related tax consequences, had a negative $0.33 effect on earnings per share attributable to Vishay stockholders. VPG contributed $171,991,000 of net revenues, $6,778,000 of income before taxes, $1,704,000 of net earnings attributable to Vishay stockholders, and $0.01 per share attributable to Vishay stockholders to our results in 2009.

Management believes that stating the impact on net earnings of items such as businesses that have been spun off, restructuring and severance costs, executive compensation charges (credits), material gains and losses on sales of property, asset write-downs, special tax items, and other items is meaningful to investors because it provides insight with respect to intrinsic operating results of the Company.

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

Overview

Vishay Intertechnology, Inc. is a global manufacturer and supplier of semiconductors and passive components, including power MOSFETs, power integrated circuits, transistors, diodes, optoelectronic components, resistors, capacitors, and inductors. Discrete semiconductors and passive components manufactured by Vishay are used in virtually all types of electronic products, including those in the industrial, computing, automotive, consumer electronic products, telecommunications, power supplies, military/aerospace, and medical industries.

We operate in five product segments, MOSFETs, Diodes, Optoelectronic Components, Resistors & Inductors, and Capacitors.

Since 1985, we have pursued a business strategy of growth through focused research and development and acquisitions. Through this strategy, we have grown to become one of the world's largest manufacturers of discrete semiconductors and passive components. We expect to continue our strategy of acquisitions while also maintaining a prudent capital structure.

We are focused on enhancing stockholder value and improving earnings per share. In addition to our growth plan, we also have opportunistically repurchased our stock. We have repurchased 44.3 million shares of our common stock since the fourth fiscal quarter of 2010, representing 24% of our shares outstanding before we began this initiative. The exchange of $56.4 million principal amount of our exchangeable unsecured notes by a holder of the notes in the third fiscal quarter of 2013 increased the number of our common shares outstanding by 3.7 million, but did not affect the number of weighted average shares outstanding used for computing diluted earnings per share because our earnings per share computation assumes that the exchangeable unsecured notes would be converted. On February 3, 2014, our Board of Directors instituted a quarterly dividend payment program and declared the first cash dividend in the history of Vishay. The permitted capacity to repurchase shares of stock or pay dividends under our credit facility increases each quarter by an amount equal to 20% of net income. At December 31, 2013, our total permitted capacity to repurchase shares of stock or pay dividends under our credit facility is $204.6 million. Although we have no current plans, we will continue to evaluate attractive stock repurchase opportunities.

Our business and operating results have been and will continue to be impacted by worldwide economic conditions. Our revenues are dependent on end markets that are impacted by consumer and industrial demand, and our operating results can be adversely affected by reduced demand in those global markets. We continue to monitor the current economic environment and its potential effects on our customers and the end markets that we serve. Additionally, we continue to closely monitor our costs, inventory, and capital resources to respond to changing conditions and to ensure we have the management, business processes, and resources to meet our future needs. In response to the current economic environment, we began implementing a targeted cost reduction program in the fourth fiscal quarter of 2013 to support our profitability without jeopardizing our growth plan. See additional information regarding our competitive strengths and key challenges as disclosed in Part 1.

We utilize several financial metrics, including net revenues, gross profit margin, segment operating income, end-of-period backlog, book-to-bill ratio, inventory turnover, change in average selling prices, net cash and short-term investments (debt), and free cash generation to evaluate the performance and assess the future direction of our business. (See further discussion in "Financial Metrics" and "Financial Condition, Liquidity, and Capital Resources.") Despite the higher net revenues in the second half of 2013, it did not meet management's expectations and nearly all of the remaining key financial metrics were lower compared to the first half of 2013. The year 2013 was slightly

stronger than the year 2012, which resulted in an increase of nearly all key financial metrics compared with the prior year.

Net revenues for the year ended December 31, 2013 were $2.371 billion, compared to net revenues of $2.230 billion and $2.594 billion for the years ended December 31, 2012 and 2011, respectively. The net earnings attributable to Vishay stockholders for the year ended December 31, 2013 were $123.0 million, or $0.81 per diluted share, compared to net earnings attributable to Vishay stockholders of $122.7 million, or $0.79 per diluted share, and $238.8 million, or $1.42 per diluted share, for the years ended December 31, 2012 and 2011, respectively.

The results of operations for the years ended December 31, 2013, 2012, and 2011 include items affecting comparability as listed in the reconciliation below. The reconciliation below includes certain financial measures which are not recognized in accordance with GAAP, including adjusted net earnings and adjusted net earnings per share. These non-GAAP measures should not be viewed as an alternative to GAAP measures of performance. Non-GAAP measures such as adjusted net earnings and adjusted net earnings per share do not have uniform definitions. These measures, as calculated by Vishay, may not be comparable to similarly titled measures used by other companies. Management believes that these measures are meaningful because they provide insight with respect to our intrinsic operating results. Reconciling items to arrive at adjusted net earnings represent significant charges or credits that are important to understanding our intrinsic operations.

The items affecting comparability are (in thousands, except per share amounts):

	Years ended December 31,		
	2013	2012	2011
GAAP net earnings attributable to Vishay stockholders	$122,980	$122,738	$238,821
Reconciling items affecting operating margin:			
Restructuring and severance costs	$2,814	$-	$-
Executive compensation charges (credit)	(1,778)	-	5,762
Gain on sale of property	-	(12,153)	-
Reconciling items affecting tax expense (benefit):			
Tax effects of items above and other one-time tax expense (benefit)	$(4,552)	$95	$1,383
Adjusted net earnings	$119,464	$110,680	$245,966
Adjusted weighted average diluted shares outstanding	151,417	155,844	168,514
Adjusted earnings per diluted share *	$0.79	$0.71	$1.46

* Includes add-back of interest on exchangeable notes in periods where the notes are dilutive.

Our results for 2013 and 2012 demonstrate our ability to react quickly to changing economic environments and successfully implement cost reduction measures when necessary to sustain earnings. Despite revenues below our expected run-rate, our pre-tax results were as we would expect based on our business model. Our results for the year ended December 31, 2011 were also affected by macroeconomic concerns, which reduced demand for our products in the last six fiscal months of the year. This period of macroeconomic concern followed a period of favorable business conditions through the first six fiscal months of 2011 in which we achieved significantly higher annualized earnings than before the beginning of the 2008-2009 global economic recession at the same sales volume.

Financial Metrics

We utilize several financial metrics to evaluate the performance and assess the future direction of our business. These key financial measures and metrics include net revenues, gross profit margin, operating margin, segment operating income, end-of-period backlog, and the book-to-bill ratio. We also monitor changes in inventory turnover and average selling prices ("ASP").

Gross profit margin is computed as gross profit as a percentage of net revenues. Gross profit is generally net revenues less costs of products sold, but also deducts certain other period costs, particularly losses on purchase commitments and inventory write-downs. Losses on purchase commitments and inventory write-downs have the impact of reducing gross profit margin in the period of the charge, but result in improved gross profit margins in subsequent periods by reducing costs of products sold as inventory is used. Gross profit margin is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs.

Operating margin is computed as gross profit less operating expenses as a percentage of net revenues. We evaluate business segment performance on segment operating margin. Only dedicated, direct selling, general, and administrative expenses of the segments are included in the calculation of segment operating income. Segment operating margin is computed as operating income less items such as restructuring and severance costs, asset write-downs, goodwill and indefinite-lived intangible asset impairments, inventory write-downs, gain or losses on purchase commitments, global operations, sales and marketing, information systems, finance and administrative groups, and other items, expressed as a percentage of net revenues. We believe that evaluating segment performance excluding such items is meaningful because it provides insight with respect to intrinsic operating results of the segment. Operating margin is clearly a function of net revenues, but also reflects our cost management programs and our ability to contain fixed costs.

End-of-period backlog is one indicator of future revenues. We include in our backlog only open orders that we expect to ship in the next twelve months. If demand falls below customers' forecasts, or if customers do not control their inventory effectively, they may cancel or reschedule the shipments that are included in our backlog, in many instances without the payment of any penalty. Therefore, the backlog is not necessarily indicative of the results to be expected for future periods.

An important indicator of demand in our industry is the book-to-bill ratio, which is the ratio of the amount of product ordered during a period as compared with the product that we ship during that period. A book-to-bill ratio that is greater than one indicates that our backlog is building and that we are likely to see increasing revenues in future periods. Conversely, a book-to-bill ratio that is less than one is an indicator of declining demand and may foretell declining revenues.

We focus on our inventory turnover as a measure of how well we are managing our inventory. We define inventory turnover for a financial reporting period as our costs of products sold for the four fiscal quarters ending on the last day of the reporting period divided by our average inventory (computed using each fiscal quarter-end balance) for this same period. A higher level of inventory turnover reflects more efficient use of our capital.

Pricing in our industry can be volatile. We analyze trends and changes in average selling prices to evaluate likely future pricing. The erosion of average selling prices of established products is typical for semiconductor products. We attempt to offset this deterioration with ongoing cost reduction activities and new product introductions. Our specialty passive components are more resistant to average selling price erosion.

The quarter-to-quarter trends in these financial metrics can also be an important indicator of the likely direction of our business. The following table shows net revenues, gross profit margin, operating margin, end-of-period backlog, book-to-bill ratio, inventory turnover, and changes in ASP for our business as a whole during the five fiscal quarters beginning with the fourth fiscal quarter of 2012 through the fourth fiscal quarter of 2013 (dollars in thousands):

	4th Quarter 2012	1st Quarter 2013	2nd Quarter 2013	3rd Quarter 2013	4th Quarter 2013
Net revenues	$530,570	$554,254	$597,665	$602,890	$616,170
Gross profit margin	20.5 %	24.7 %	23.9 %	23.8 %	23.4 %
Operating margin [1]	4.1 %	8.2 %	8.7 %	8.8 %	7.6 %
End-of-period backlog [2]	$506,000	$578,100	$646,700	$613,800	$611,400
Book-to-bill ratio	0.95	1.14	1.08	0.93	0.99
Inventory turnover	3.99	4.04	4.21	4.08	4.23
Change in ASP vs. prior quarter	-1.6 %	-0.8 %	-1.1 %	-0.6 %	-0.7 %

(1) Operating margin for the second fiscal quarter of 2013 includes a $1.8 million stock compensation credit related to performance-based stock compensation for certain former executives, following a determination that achievement of the three-year performance targets was no longer probable (see Note 12 to our consolidated financial statements). Operating margin for the fourth fiscal quarter of 2013 includes a $2.8 million restructuring and severance expense recorded in the fourth fiscal quarter of 2013 (see Note 4 to our consolidated financial statements).
(2) End-of-period backlog for the second fiscal quarter of 2013 reflects a total of $15.5 million related to the backlog of MCB Industrie S.A. as of the date of acquisition.

See "Financial Metrics by Segment" below for net revenues, book-to-bill ratio, and gross profit margin broken out by segment.

Following a period of low distributor demand and a deteriorating business environment experienced in the second half of 2012, our results improved through the first half of 2013, driven by the restocking of distributor inventory and improving customer demand. The third fiscal quarter of 2013 was burdened by a sudden decrease in orders from distributors and produced disappointing results, but orders from distributors increased in the fourth fiscal quarter, which led to an increase in revenues and backlog versus the prior fiscal quarter and prior year periods. Average selling prices continue to decline primarily due to our commodity semiconductor products.

Gross margins were negatively impacted by additional depreciation associated with our cost reduction programs in the fourth fiscal quarter of 2013. Gross margins improved versus the prior year periods due to the increased sales volume.

Due to the increase in orders, the book-to-bill ratio increased to 0.99 in the fourth fiscal quarter of 2013 from 0.93 in the third fiscal quarter of 2013. The book-to-bill ratios for distributors and original equipment manufacturers ("OEM") were 0.98 and 0.99, respectively, versus ratios of 0.91 and 0.96, respectively, during the third fiscal quarter of 2013.

Financial Metrics by Segment

The following table shows net revenues, book-to-bill ratio, gross profit margin, and segment operating margin broken out by segment for the five fiscal quarters beginning with the fourth fiscal quarter of 2012 through the fourth fiscal quarter of 2013 (dollars in thousands):

	4th Quarter 2012	1st Quarter 2013	2nd Quarter 2013	3rd Quarter 2013	4th Quarter 2013
MOSFETs					
Net revenues	$104,156	$100,888	$115,563	$115,168	$117,858
Book-to-bill ratio	0.90	1.22	1.11	0.94	0.96
Gross profit margin	9.6 %	12.8 %	14.2 %	13.7 %	12.1 %
Segment operating margin	0.1 %	2.8 %	4.9 %	4.6 %	4.5 %
Diodes					
Net revenues	$116,494	$125,112	$140,623	$140,790	$140,739
Book-to-bill ratio	1.01	1.28	1.17	0.88	0.98
Gross profit margin	17.3 %	21.8 %	22.3 %	23.0 %	21.4 %
Segment operating margin	12.2 %	17.1 %	18.0 %	18.6 %	16.8 %
Optoelectronic Components					
Net revenues	$50,267	$56,226	$58,397	$56,847	$56,775
Book-to-bill ratio	1.03	1.08	1.00	0.87	1.05
Gross profit margin	32.8 %	35.2 %	32.8 %	35.5 %	31.1 %
Segment operating margin	25.8 %	28.8 %	26.6 %	29.0 %	24.7 %
Resistors & Inductors					
Net revenues	$153,200	$165,866	$171,333	$178,175	$190,874
Book-to-bill ratio	0.94	1.07	1.04	1.04	0.95
Gross profit margin	28.4 %	31.7 %	31.7 %	30.4 %	31.9 %
Segment operating margin	23.1 %	26.6 %	26.6 %	25.3 %	27.1 %
Capacitors					
Net revenues	$106,453	$106,162	$111,749	$111,910	$109,924
Book-to-bill ratio	0.93	1.06	1.05	0.84	1.07

Gross profit margin	17.5	%	22.8	%	19.2	%	18.6	%	19.6	%
Segment operating margin	12.2	%	17.4	%	13.9	%	13.3	%	14.2	%

Acquisition and Divestiture Activity

As part of our growth strategy, we seek to expand through targeted acquisitions of other manufacturers of electronic components that have established positions in major markets, reputations for product quality and reliability, and product lines with which we have substantial marketing and technical expertise. This includes exploring opportunities to acquire targets to gain market share, penetrate different geographic markets, enhance new product development, round out our existing product lines, or grow our high margin niche market businesses. Acquisitions of passive components businesses would likely be made to strengthen and broaden our position as a specialty product supplier; acquisitions of discrete semiconductor businesses would be made to increase market share and to generate synergies. To limit our financial exposure, we have implemented a policy not to pursue acquisitions if our post-acquisition debt would exceed 2.5x our pro forma earnings before interest, taxes, depreciation, and amortization ("EBITDA"). For these purposes, we calculate pro forma EBITDA as the adjusted EBITDA of Vishay and the target for Vishay's four preceding fiscal quarters, with a pro forma adjustment for savings which management estimates would have been achieved had the target been acquired by Vishay at the beginning of the four fiscal quarter period.

Our growth plan targets adding, through acquisitions, an average of approximately $100 million of revenues per year. Depending on the opportunities available, we might make several smaller acquisitions or a few larger acquisitions. We intend to make such acquisitions using mainly cash, rather than debt or equity, although we do have capacity under our revolving credit facility if necessary. We are not currently targeting acquisitions with a purchase price larger than $500 million.

There is no assurance that we will be able to identify and acquire additional suitable acquisition candidates at price levels and on terms and conditions we consider acceptable.

2013 Activities

On June 13, 2013, we acquired MCB Industrie S.A. ("MCB Industrie") in France, a well-established manufacturer of specialty resistors and sensors, for $23.0 million, net of cash acquired. The products and technology portfolio acquired is expected to enable us to expand our presence in the European industrial market. For financial reporting purposes, the results of operations for this business have been included in the Resistors & Inductors segment from June 13, 2013.

2012 Activities

On January 13, 2012, we acquired HiRel Systems LLC, a leading supplier of high reliability transformers, inductors, coils, and power conversion products, for approximately $85.5 million. The products and technology portfolio acquired further enhance our inductors portfolio, particularly in the field of custom magnetics for medical, military, aerospace and aviation, and applications in the industrial and commercial field such as renewable energy and test and measurement equipment. For financial reporting purposes, the results of operations for this business have been included in the Resistors & Inductors segment from January 13, 2012.

2011 Activities

On September 28, 2011, we acquired the resistor businesses of Huntington Electric, Inc., for approximately $19.3 million. The businesses acquired further enhance our broad resistor portfolio, particularly in the high power and high current ranges, as well as with resistor assemblies for industrial applications. For financial reporting purposes, the results of operations for these businesses have been included in the Resistors & Inductors segment from September 28, 2011.

Cost Management

We place a strong emphasis on controlling our costs.

The erosion of average selling prices of established products, particularly our semiconductor products, that is typical of our industry and inflation drive us to continually seek ways to reduce our variable costs. Our variable cost reduction efforts include expending capital to increase automation and maximize the efficiency in our production facilities, consolidating materials purchasing across regions and divisions to achieve economies of scale, materials substitution, maintaining an appropriate mix of in-house production and subcontractor production, increasing wafer size and shrinking dies to maximize efficiency in our semiconductor production processes, and other yield improvement activities.

Our cost management strategy also includes a focus on controlling fixed costs. We seek to maintain selling, general, and administrative expenses at current quarterly levels, excluding foreign currency exchange effects and substantially independent of sales volume changes. Our fixed cost control efforts include automating administrative processes through the expansion of IT systems, gradually migrating to common IT systems across our organization, streamlining our legal entity structure, and reducing our external resource needs by utilizing more cost-effective in-house personnel, while utilizing external resources when day-to-day expertise is not required in-house.

Historically, our primary cost reduction technique was through the transfer of production to the extent possible from high-labor-cost countries, such as the United States and Western Europe, to lower-labor-cost countries, such as the Czech Republic, Hungary, Israel, India, Malaysia, Mexico, the People's Republic of China, and the Philippines. Between 2001 and 2009, we recorded, in the consolidated statements of operations, restructuring and severance costs totaling $320 million and related asset write-downs totaling $89 million in order to reduce our cost structure going forward. We also incurred significant costs to restructure and integrate acquired businesses, which was included in the cost of the acquisitions under then-applicable GAAP.

We did not initiate any new restructuring projects in 2010, 2011, or 2012 and thus did not record any restructuring and severance expenses during such periods. Occasionally, our ongoing cost containment activities are not adequate and we must take actions to maintain our cost competitiveness. On October 28, 2013, we announced various cost reduction programs as part of our continuous efforts to improve efficiency and operating performance. We recorded $2.8 million of restructuring and severance expenses in the fourth fiscal quarter of 2013 for the expenses that were recognizable under GAAP during the period. The remaining expenses associated with the programs will be recorded as they become recognizable under GAAP.

The programs primarily focus on a plan to enhance the competitiveness of our MOSFETs segment and a voluntary separation / early retirement offer to certain employees Company-wide. We also plan to implement two other smaller cost reduction programs concerning the manufacturing of products within our Diodes segment. The programs in total are expected to lower costs by approximately $36 million per year when fully implemented at expected cash costs of approximately $32 million.

The project for the MOSFETs segment will extend over a period of approximately two years. The manufacture of wafers for a substantial share of products will be transferred into a more cost-efficient fab. As a consequence, certain other wafer manufacturing currently occurring in-house will be transferred to third-party foundries.

The total cash costs associated with the MOSFETs initiatives, principally severance, are expected to be approximately $16 million. Once fully implemented, we anticipate that the MOSFETs programs will result in an annual reduction in variable and fixed manufacturing costs of approximately $23 million at current volumes.

The voluntary separation / early retirement offer has been made to employees worldwide who are eligible because they have met job classification, age, and/or years-of-service criteria as of October 31, 2013. The program benefits vary by country and job classification, but generally offer a cash loyalty bonus. All responses are due, subject to applicable rescission rights, on or before March 28, 2014. Accodingly, we expect most costs associated with this program will be recorded in the first fiscal quarter of 2014. The voluntary separation / early retirement program will not impact manufacturing operations or our growth plan. Our named executive officers (as defined in our proxy statement) and certain other key employees, generally research, development, and engineering personnel, are not eligible for the voluntary separation / early retirement program. The effective separation / retirement date for most eligible employees who accept the offer will be June 30, 2014 or earlier, with a few exceptions to allow for a transition period.

As expected, as of December 31, 2013, only a limited number of employees have tendered irrevocable voluntary termination notices. We have received satisfactory expressions of interest and we expect most formal responses to be received closer to the March 28 deadline.

We estimate that total costs associated with the voluntary separation / early retirement program will be approximately $13 million, based on the expected acceptance rate. Once fully implemented, the Company anticipates that the program will result in an annual reduction in fixed costs of approximately $10 million, split approximately one-third in manufacturing and two-thirds in selling, general, and administrative expenses.

Two other smaller cost reduction programs relate to the transfer of production of certain products within our Diodes segment, which will be implemented in the course of 2014. Both programs are connected to production moves, in order to take advantage of lower labor costs in one program and from the consolidation of manufacturing locations in the other. The total cash costs associated with these production transfers are expected to be approximately $3 million, and will result in annual cost savings of approximately $3 million when fully implemented.

We believe that our manufacturing footprint is suitable to serve our customers and end markets, while maintaining lower manufacturing costs. Except for the distinct and targeted programs noted above, we do not anticipate any other material restructuring activities during the remainder of 2013 or 2014. As we have demonstrated the past two years, we believe that we can substantially maintain our trained workforce, even at lower manufacturing activity levels, by reducing hours and limiting the use of subcontractors and foundries. However, a continued sluggish business environment for the electronics industry or the recurrence of a significant economic downturn may require us to implement additional restructuring initiatives.

Our long-term strategy includes growth through the integration of acquired businesses, and GAAP requires plant closure and employee termination costs that we incur in connection with our acquisition activities to be recorded as expenses in our consolidated statement of operations, as such expenses are incurred. We have not incurred any material plant closure or employee termination costs related to our acquisitions of Huntington Electric, HiRel Systems, LLC, or MCB Industrie, but we expect to have some level of future restructuring expenses due to acquisitions.

Even as we seek to manage our costs, we continue to pursue our growth plans through investing in capacities for strategic product lines, and through increasing our resources for R&D, technical marketing, and field application engineering; supplemented by opportunistic acquisitions of specialty businesses.

Growth Plan

We are focused on enhancing stockholder value and improving earnings per share by growing our business and opportunistically repurchasing our stock. We plan to grow our business through intensified internal growth supplemented by opportunistic acquisitions, while at the same time maintaining a prudent capital structure. To foster intensified internal growth, we have increased our R&D and engineering technical staff by 18% since 2009 and plan to further increase it; we are expanding critical manufacturing capacities; we are increasing our technical field sales force in Asia by about 25% to increase our market access to the industrial segment and increase the design-in of our products in local markets; and we are directing increased funding and focus on developing products to capitalize on the connectivity, mobility, and sustainability growth drivers of our business. These efforts as well as our broad and innovative product portfolio and strong position in distribution worldwide have us positioned very well in case of a dramatic upturn in the economy. Our growth plan also targets adding, through acquisitions, $100 million of revenues per year on average. Since 2011, we have acquired the specialty product businesses of Huntington Electric, HiRel Systems, LLC, and MCB Industrie and we continue to explore additional acquisition opportunities despite the current economic volatility.

Foreign Currency Translation

We are exposed to foreign currency exchange rate risks, particularly due to transactions in currencies other than the functional currencies of certain subsidiaries. While we have in the past used forward exchange contracts to hedge a portion of our projected cash flows from these exposures, we generally have not done so in recent periods.

GAAP requires that entities identify the "functional currency" of each of their subsidiaries and measure all elements of the financial statements in that functional currency. A subsidiary's functional currency is the currency of the primary economic environment in which it operates. In cases where a subsidiary is relatively self-contained within a particular country, the local currency is generally deemed to be the functional currency. However, a foreign subsidiary that is a direct and integral component or extension of the parent company's operations generally would have the parent company's currency as its functional currency. We have both situations among our subsidiaries.

Foreign Subsidiaries which use the Local Currency as the Functional Currency

We finance our operations in Europe and certain locations in Asia in local currencies, and accordingly, these subsidiaries utilize the local currency as their functional currency. For those subsidiaries where the local currency is the functional currency, assets and liabilities in the consolidated balance sheets have been translated at the rate of exchange as of the balance sheet date. Translation adjustments do not impact the results of operations and are reported as a separate component of stockholders' equity.

For those subsidiaries where the local currency is the functional currency, revenues and expenses are translated at the average exchange rate for the year. While the translation of revenues and expenses into U.S. dollars does not directly impact the consolidated statement of operations, the translation effectively increases or decreases the U.S. dollar equivalent of revenues generated and expenses incurred in those foreign currencies. The dollar generally was weaker during the year ended December 31, 2013 compared to the prior year, with the translation of foreign currency revenues and expenses into U.S. dollars generally increasing reported revenues and expenses versus the prior year.

Foreign Subsidiaries which use the U.S. Dollar as the Functional Currency

Our operations in Israel and most significant locations in Asia are largely financed in U.S. dollars, and accordingly, these subsidiaries utilize the U.S. dollar as their functional currency. For those foreign subsidiaries where the U.S. dollar is the functional currency, all foreign currency financial statement amounts are remeasured into U.S. dollars. Exchange gains and losses arising from remeasurement of foreign currency-denominated monetary assets and liabilities are included in the results of operations. While these subsidiaries transact most business in U.S. dollars, they may have significant costs, particularly payroll-related, which are incurred in the local currency. The cost of products

sold and selling, general, and administrative expense for the year ended December 31, 2013 have been slightly unfavorably impacted (compared to the prior year) by local currency transactions of subsidiaries which use the U.S. dollar as their functional currency.

See Item 7A for additional discussion of foreign currency exchange risk.

Critical Accounting Policies and Estimates

Our significant accounting policies are summarized in Note 1 to our consolidated financial statements. We identify here a number of policies that entail significant judgments or estimates.

Revenue Recognition

We recognize revenue on product sales during the period when the sales process is complete. This generally occurs when products are shipped to the customer in accordance with terms of an agreement of sale, title and risk of loss have been transferred, collectibility is reasonably assured, and pricing is fixed or determinable. For a small percentage of sales where title and risk of loss passes at point of delivery, we recognize revenue upon delivery to the customer, assuming all other criteria for revenue recognition are met. We historically have had agreements with distributors that provided limited rights of product return. We have modified these arrangements to allow distributors a limited credit for unsaleable products, which we term a "scrap allowance." Consistent with industry practice, we also have a "stock, ship and debit" program whereby we consider, and grant at our discretion, requests by distributors for credits on previously purchased products that remain in distributors' inventory, to enable the distributors to offer more competitive pricing. In addition, we have contractual arrangements whereby we provide distributors with protection against price reductions that we initiate after the sale of product to the distributor and prior to resale by the distributor.

We record end of period accruals for each of the programs based upon our estimate of future credits under the programs that will be attributable to sales recorded through the end of the period. We calculate reductions of revenue attributable to each of the programs during any period by computing the change in the accruals from the prior period and adding the credits actually given to distributors during the period under the programs. These procedures require the exercise of significant judgments, but we believe they enable us to reasonably estimate future credits under the programs.

Recording and monitoring of these accruals takes place at our subsidiaries and divisions, with input from sales and marketing personnel and review, assessment, and, if necessary, adjustment by corporate management. While our subsidiaries and divisions utilize different methodologies based on their individual experiences, all of the methodologies take into account certain elements that management considers relevant, such as sales to distributors during the relevant period, inventory levels at the distributors, current and projected market trends and conditions, recent and historical activity under the relevant programs, changes in program policies, and open requests for credits. In our judgment, the different methodologies provide us with equally reliable estimates upon which to base our accruals. We do not track the credits that we record against specific products sold from distributor inventories, so as to directly compare revenue reduction for credits recorded during any period with credits ultimately awarded in respect of products sold during that period. Nevertheless, we believe that we have an adequate basis to assess the reasonableness and reliability of our estimates.

We recognize royalty revenue in accordance with agreed upon terms when performance obligations are satisfied, the amount is fixed or determinable, and collectibility is reasonably assured. We earn royalties at the point of sale of products which incorporate licensed intellectual property. The amount of royalties recognized is determined based on our licensees' periodic reporting to us and judgments and estimates by our management that we believe are reasonable. However, it is possible that actual results may differ from our estimates.

Inventories and Purchase Commitments

We value our inventories at the lower of cost or market, with cost determined under the first-in, first-out method and market based upon net realizable value. The valuation of our inventories requires our management to make market estimates. For work in process goods, we are required to estimate the cost to completion of the products and the prices at which we will be able to sell the products. For finished goods, we must assess the prices at which we believe the inventory can be sold. Inventories are also adjusted for estimated obsolescence and written down to net realizable value based upon estimates of future demand, technology developments and market conditions.

Certain metals used in the manufacture of our products are traded on active markets, and can be subject to significant price volatility. Our policy is to enter into short-term commitments to purchase defined portions of annual consumption of these metals if market prices decline below budget. We record losses and related liabilities when the contractually obligated purchase price under our purchase commitments exceed quoted market prices for the metals.

Goodwill

Goodwill represents the excess of the cost of a business acquired over the fair value of the related net assets at the date of acquisition. Goodwill is not amortized but rather tested for impairment at least annually. These impairment tests must be performed more frequently whenever events or changes in circumstances indicate that the asset might be impaired.

When testing goodwill for impairment, we have the option of performing a qualitative assessment before performing the two-step quantitative impairment test. If we determine, on the basis of qualitative factors, that the fair value of the reporting unit is not more likely than not less than the carrying amount, the two-step impairment test is not required. If we determine that the fair value of the reporting unit is more likely than not less than the carrying amount, the two-step impairment test is required. In the first step of the quantitative impairment test, we determine the fair value of the reporting unit and compare the fair value to the net book value of the reporting unit. The fair value of the reporting unit is determined using various valuation techniques, including a comparable companies market multiple approach and a discounted cash flow analysis (an income approach). The comparable companies utilized are generally the members of our peer group included in the presentation of our stock performance graph in Item 5 of our Annual Report on Form 10-K.

In step two of the quantitative impairment test, we determine the implied fair value of goodwill in the same manner as if we had acquired those business units. Specifically, we must allocate the fair value of the reporting unit to all of the assets of that unit, including any unrecognized intangible assets, in a hypothetical calculation that would yield the implied fair value of goodwill. The impairment loss is measured as the difference between the book value of the goodwill and the implied fair value of the goodwill computed in step two.

Fair value of reporting units, and the underlying assets and liabilities of those reporting units, is measured at a point in time, and reflects specific market conditions as of the measurement date. We perform our annual impairment test as of the first day of the fourth fiscal quarter.

The determination of the fair value of the reporting units and the allocation of that value to individual assets and liabilities within those reporting units requires us to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to: the selection of appropriate peer group companies; control premiums appropriate for acquisitions in the industries in which we compete; the discount rate; terminal growth rates; and forecasts of revenue, operating income, depreciation and amortization, and capital expenditures. The allocation requires several analyses to determine fair value of assets and liabilities including, among others, completed technology, tradenames, in-process research and development, customer relationships, and certain property and equipment (valued at replacement costs).

Due to the inherent uncertainty involved in making these estimates, actual financial results could differ from those estimates. In addition, changes in assumptions concerning future financial results or other underlying assumptions could have a significant impact on either the fair value of the reporting unit or the amount of the goodwill impairment charge.

Impairment of Long-Lived Assets and Indefinite-Lived Intangible Assets

We assess the impairment of our long-lived assets, other than goodwill and indefinite-lived tradenames, including property and equipment, long-term prepaid assets, and identifiable intangible assets subject to amortization, whenever events or changes in circumstances indicate the carrying value may not be recoverable. Long-lived assets are grouped at the lowest level of independent cash flows and evaluated as a group. Factors we consider important, which could trigger an impairment review, include significant changes in the manner of our use of the assets, changes in historical or projected operating performance, and significant negative economic trends. The carrying value of a long-lived asset group is considered impaired when the total projected undiscounted cash flows from such asset group are separately identifiable and are less than the carrying value. In that event, a loss is recognized based on the amount by which the carrying value exceeds the fair market value of the long-lived asset group, primarily determined using discounted future cash flows.

Indefinite-lived intangible assets (which for us are comprised entirely of tradenames) are not amortized, but similar to goodwill, are tested for impairment at least annually. These tests are performed more frequently if there are triggering events. When testing an indefinite-lived intangible asset for impairment we have the option of performing a qualitative assessment before calculating the fair value of the asset. If we determine, on the basis of qualitative factors, that the fair value of the indefinite-lived intangible asset is not more likely than not impaired, we would not need to calculate the fair value of the asset. The fair value of the tradenames is measured as the discounted cash flow savings realized from owning such tradenames and not having to pay a royalty for their use.

The evaluation of the recoverability of long-lived assets, and the determination of their fair value, requires us to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to: the identification of the asset group at the lowest level of independent cash flows and the principal asset of the group; the discount rate; terminal growth rates; and forecasts of revenue, operating income, depreciation and amortization, and capital expenditures.

The evaluation of the fair value of indefinite-lived trademarks also requires us to make significant estimates and assumptions. These estimates and assumptions primarily include, but are not limited to: the assumed market-royalty rate; the discount rate; terminal growth rates; and forecasts of revenue.

Due to the inherent uncertainty involved in making these estimates, actual results could differ from those estimates. In addition, changes in underlying assumptions would have a significant impact on the conclusion that an asset group's carrying value is recoverable, that an indefinite-lived asset is not impaired, or the determination of any impairment charge if it was determined that the asset values were indeed impaired.

Accounts Receivable

Our accounts receivable represent a significant portion of our current assets. We are required to estimate the collectibility of our receivables and to establish allowances for the amount of receivables that will prove uncollectible. We base these allowances on our historical collection experience, the length of time our receivables are outstanding, the financial circumstances of individual customers, and general business and economic conditions. Due to our large number of customers and their dispersion across many countries and industries, we have limited exposure to concentrations of credit risk. As of December 31, 2013, one customer comprised 13.9% of our accounts receivable balance. This customer comprised 14.7% of our accounts receivable balance as of December 31, 2012. No other customer accounted for more than 10% of our accounts receivable balance as of December 31, 2013 or December 31, 2012. We continually monitor the credit risks associated with our accounts receivable and adjust the allowance for uncollectible accounts accordingly. We believe that our accounts receivable credit risk exposure beyond such allowance is not material to the financial statements.

Pension and Other Postretirement Benefits

Our defined benefit plans are concentrated in the United States, Germany, and the Republic of China (Taiwan). Our U.S. plans include a plan qualified under the Employee Retirement Security Act of 1974 ("ERISA") and various non-qualified plans. The table below summarizes information about our pension and other postretirement benefit plans. This information should be read in conjunction with Note 11 to our consolidated financial statements (amounts in thousands):

	Benefit obligation	Plan assets	Funded position	Informally funded assets	Net position	Unrecognized actuarial items
U.S. qualified pension plan	$ 279,925	$ 295,633	$ 15,708	$ -	$ 15,708	$ 78,324
U.S. non-qualified pension plans	35,448	-	(35,448)	22,899	(12,549)	6,060
German pension plans	187,335	-	(187,335)	4,682	(182,653)	39,223
Taiwanese pension plans	62,983	21,822	(41,161)	-	(41,161)	18,360
Other pension plans	30,208	27,037	(3,171)	-	(3,171)	4,069
OPEB plans	14,845	-	(14,845)	2,674	(12,171)	(4,536)
Other retirement obligations	14,017	-	(14,017)	-	(14,017)	-
	$ 624,761	$ 344,492	$ (280,269)	$ 30,255	$ (250,014)	$ 141,500

Accounting for defined benefit pension and other postretirement plans involves numerous assumptions and estimates. The discount rate at which obligations could effectively be settled and the expected long-term rate of return on plan assets are two critical assumptions in measuring the cost and benefit obligations of our pension and other postretirement benefit plans. Other important assumptions include the anticipated rate of future increases in compensation levels, estimated mortality, and for certain postretirement medical plans, increases or trends in health care costs. Management reviews these assumptions at least annually. We use independent actuaries and investment advisers to assist us in formulating assumptions and making estimates. These assumptions are updated periodically to reflect the actual experience and expectations on a plan specific basis as appropriate.

In the U.S., we utilize published long-term high quality bonds to determine the discount rate at the measurement date. In Germany and the Republic of China (Taiwan), we utilize published long-term government bond rates to determine the discount rate at the measurement date. We utilize bond yields at various maturity dates that reflect the timing of expected future benefit payments. We believe the discount rates selected are the rates at which these obligations could effectively be settled.

For our U.S. qualified plan, we establish strategic asset allocation percentage targets and appropriate benchmarks for significant asset classes with the aim of achieving a prudent balance between return and risk. Based on current market interest rate conditions and the current market value of the plan assets, our qualified defined benefit plan in the U.S. is fully-funded. Accordingly, we have revised the asset allocation strategy for this plan with the intention of further reducing risk.

Non-qualified plans in the U.S. are considered by law to be unfunded. However, the Company maintains assets in a rabbi trust to fund benefit payments under certain of these plans. Such assets would be subject to creditor claims under certain conditions. (See also Notes 11 and 18 to our consolidated financial statements.)

Many of our non-U.S. plans are unfunded based on local laws and customs. For those non-U.S. plans that do maintain investments, their asset holdings are primarily cash and fixed income securities, based on local laws and customs. Some non-U.S. plans also informally fund their plans by holding certain available-for-sale investments. Such assets would be subject to creditor claims under certain conditions. (See also Note 18 to our consolidated financial statements.)

We set the expected long-term rate of return based on the expected long-term average rates of return to be achieved by the underlying investment portfolios. In establishing this rate, we consider historical and expected returns for the asset classes in which the plans are invested, advice from pension consultants and investment advisors, and current economic and capital market conditions. The expected return on plan assets is incorporated into the computation of pension expense. The difference between this expected return and the actual return on plan assets is deferred. The net deferral of past asset losses (gains) affects the calculated value of plan assets and, ultimately, future pension expense (income).

We expect net periodic pension cost in 2014 to be less than net periodic pension cost recognized in 2013, with a decrease in the amortization of unrecognized losses partially offset by lower expected returns on assets subsequent to implementation of our asset de-risking strategies.

During the fourth fiscal quarter of 2008, we adopted amendments to our principal U.S. defined benefit pension plans, such that effective January 1, 2009, the plans were frozen. Pursuant to these amendments, no new employees may participate in the plans, no further participant contributions will be required or permitted, and no further benefits shall accrue after December 31, 2008. Accordingly, net periodic pension cost for U.S. plans no longer include any service cost.

We continue to seek to de-risk our pension exposures, especially given the frozen status of the U.S. plans and the current funded status. Such actions could result in increased net periodic pension cost due to lower expected rates of return on plan assets and/or possible charges to recognize unamortized actuarial items if all or a portion of the obligations were to be settled.

We believe that the current assumptions used to estimate plan obligations and annual expenses are appropriate. However, if economic conditions change or if our investment strategy changes, we may be inclined to change some of our assumptions, and the resulting change could have a material impact on the consolidated statements of operations and on the consolidated balance sheet.

Income Taxes

We are subject to income taxes in the U.S. and numerous foreign jurisdictions. Significant judgment is required in evaluating our tax positions and determining our provision for income taxes. During the ordinary course of business, there are many transactions and calculations for which the ultimate tax determination is uncertain. We establish reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due. These reserves are established when we believe that certain positions might be challenged despite our belief that our tax return positions are fully supportable. We adjust these reserves in light of changing facts and circumstances and the provision for income taxes includes the impact of reserve provisions and changes to reserves that are considered appropriate.

These accruals are based on management's best estimate of potential tax exposures. When particular matters arise, a number of years may elapse before such matters are examined and finally resolved. Favorable resolution of such matters could be recognized as a reduction to our effective tax rate in the year of resolution. Unfavorable resolution of any particular issue could increase the effective tax rate and may require the use of cash in the year of resolution.

We and our subsidiaries file U.S. federal income tax returns, as well as tax returns in multiple state and foreign jurisdictions. The U.S. Internal Revenue Service is currently conducting an examination of our U.S. federal tax returns for the years 2010 and 2011. Because of net operating losses which were fully utilized on the 2010 tax return, our U.S. federal tax returns for 2003 through 2009 remain subject to examination. Most principal subsidiaries in Israel are currently under examination for tax years 2008 through 2010. The tax returns of other significant non-U.S. subsidiaries which are currently under examination include India (2004 through 2011), China (2009), and the Republic of Taiwan (2007 through 2012). In 2013, we settled an examination of the 2005 through 2008 tax years for our subsidiaries in Germany. We and our subsidiaries also file income tax returns in other taxing jurisdictions in the U.S. and around the world, many of which are still open to examinations.

We account for uncertainty in income tax positions using the minimum recognition threshold a tax position is required to meet before being recognized in the financial statements as prescribed in GAAP. For a tax benefit to be recognized, a tax position must be "more likely than not" to be sustained upon examination by taxing authorities.

We have recorded deferred tax assets representing future tax benefits, but may not be able to realize these future tax benefits in certain jurisdictions. Significant judgment is required in determining the expected future realizability of these deferred tax assets. We periodically evaluate the realizability of our deferred tax assets by assessing the valuation allowance and by adjusting the amount of such allowance, if necessary. The factors used to assess the likelihood of realization include deferred tax liabilities, our forecast of future taxable income, and available tax planning strategies that could be implemented to realize the net deferred tax assets.

Substantially all earnings generated by our non-U.S. subsidiaries are deemed to be reinvested outside of the United States indefinitely. Accordingly, no provision has been made for U.S. federal and state income taxes on these foreign earnings. Upon distribution of those earnings in the form of dividends or otherwise, we would be subject to U.S. income taxes (subject to an adjustment for foreign tax credits), state income taxes, incremental foreign income taxes, and withholding taxes payable to various foreign countries.

Additional information about income taxes is included in Note 5 to our consolidated financial statements.

Results of Operations

Statement of operations' captions as a percentage of net revenues and the effective tax rates were as follows:

	Years ended December 31,		
	2013	2012	2011
Costs of products sold	76.1%	76.4%	72.2%
Gross profit	23.9%	23.6%	27.8%
Selling, general, and administrative expenses	15.5%	15.7%	14.2%
Operating income	8.3 %	8.5 %	13.4%
Income before taxes and noncontrolling interest	7.4 %	7.6 %	12.8%
Net earnings attributable to Vishay stockholders	5.2 %	5.5 %	9.2 %
Effective tax rate	29.8%	27.4%	27.5%

Net Revenues

Net revenues were as follows (dollars in thousands):

	Years Ended December 31,		
	2013	2012	2011
Net revenues	$2,370,979	$2,230,097	$2,594,029
Change versus prior year	$140,882	$(363,932)	
Percentage change versus prior year	6.3 %	-14.0 %	

Changes in net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Change in volume	8.3 %	-11.5%
Decrease in average selling prices	-3.1 %	-3.7 %
Foreign currency effects	0.8 %	-2.1 %
Acquisitions	0.8 %	2.3 %
Other	-0.5 %	1.0 %
Net change	6.3 %	-14.0%

Overall, the business conditions in 2013 were better than the 2012 conditions, but both years were below our expected run-rate. Our revenue results for the year ended December 31, 2011 also represent the effects of macroeconomic concerns, which reduced demand for our products in the last six fiscal months of the year, and the resulting quick adaptation of our manufacturing capacities in response thereto. This period of macroeconomic concerns followed a period of favorable business conditions through the first six fiscal months of 2011 in which we achieved significantly higher annualized earnings than before the beginning of the 2008-2009 global economic recession at the same sales volume.

We deduct, from the sales that we record to distributors, allowances for future credits that we expect to provide for returns, scrapped product, and price adjustments under various programs made available to the distributors. We make deductions corresponding to particular sales in the period in which the sales are made, although the corresponding credits may not be issued until future periods. We estimate the deductions based on sales levels to distributors, inventory levels at the distributors, current and projected market trends and conditions, recent and historical activity under the relevant programs, changes in program policies, and open requests for credits. We recorded deductions from gross sales under our distributor incentive programs of $84.3 million, $72.7 million, and $80.3 million, for the years ended December 31, 2013, 2012, and 2011, respectively, or, as a percentage of gross sales, 3.4%, 3.2%, and 3.0%, respectively. Actual credits issued under the programs for the years ended December 31, 2013, 2012, and 2011 were approximately $83.2 million, $76.9 million, and $82.3 million, respectively. Increases and decreases in these incentives are largely attributable to the then-current business climate.

Royalty revenues, included in net revenues on the consolidated statements of operations, were $6.4 million, $7.1 million, and $6.6 million, for the years ended December 31, 2013, 2012, and 2011, respectively.

Gross Profit and Margins

Gross profit margins for the year ended December 31, 2013 were 23.9%, as compared to 23.6% for year ended December 31, 2012.

Gross profit margins for the year ended December 31, 2012 were 23.6%, as compared to 27.8% for year ended December 31, 2011. This decrease in gross profit margin reflects significantly lower volume and lower average selling prices.

Segments

Analysis of revenues and gross profit margins for our segments is provided below.

MOSFETs

Net revenues of the MOSFETs segment were as follows (dollars in thousands):

	Years ended December 31,		
	2013	2012	2011
Net revenues	$449,477	$433,682	$537,980
Change versus comparable prior year period	$15,795	$(104,298)	
Percentage change versus comparable prior year period	3.6 %	-19.4 %	

Changes in MOSFETs segment net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Change in volume	11.2 %	-10.9%
Decrease in average selling prices	-6.3 %	-9.9 %
Foreign currency effects	0.2 %	-0.7 %
Other	-1.5 %	2.1 %
Net change	3.6 %	-19.4%

Gross profit as a percentage of net revenues for the MOSFETs segment was as follows:

	Years ended December 31,		
	2013	2012	2011
Gross margin percentage	13.2%	13.1%	23.3%

The MOSFETs segment was positively affected by increased demand from OEM customers in Asia in 2013. The gross profit margin remained below expectations in 2013 as the increase in volume and lower materials prices were almost fully offset by the decrease in average selling prices and the negative effect of additional depreciation associated with our cost reduction program. The decrease in gross profit margin from 2011 to 2012 is primarily due to decreases in sales volume and average selling prices. Also, a non-recurring manufacturing issue associated with purchased materials affected the 2012 results.

We have experienced significant declines in average selling prices in 2013 and 2012. The decline in 2013 is partially due to lower materials prices. The decline in 2012 is partially due to selective volume based pricing for our MOSFETs products that we implemented in the second fiscal quarter of 2012.

On October 28, 2013, we announced a cost reduction program to enhance the competitiveness of our MOSFETs segment. See "Cost Management" above.

We continue to be optimistic about the long-term prospects of the MOSFETs segment and continue to make capital and R&D investments in this business.

Diodes

Net revenues of the Diodes segment were as follows (dollars in thousands):

	Years ended December 31,		
	2013	2012	2011
Net revenues	$547,264	$496,744	$607,493
Change versus comparable prior year period	$50,520	$(110,749)	
Percentage change versus comparable prior year period	10.2 %	-18.2 %	

Changes in Diodes segment net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Change in volume	13.8 %	-14.9%
Decrease in average selling prices	-3.0 %	-2.8 %
Foreign currency effects	0.2 %	-1.4 %
Other	-0.8 %	0.9 %
Net change	10.2 %	-18.2%

Gross profit as a percentage of net revenues for the Diodes segment was as follows:

	Years ended December 31,		
	2013	2012	2011
Gross margin percentage	22.2%	20.0%	23.7%

The Diodes segment was positively affected by the increased demand from distributors in Asia in 2013, but negatively affected by the low demand from distributors in Asia in 2012. The increase in gross profit margin from 2012 to 2013 is primarily due to the increase in sales volume, manufacturing efficiencies, and lower materials prices, partially offset by decreased average selling prices. The decrease in the Diodes segment gross profit margin from 2011 to 2012 is primarily due to the decrease in sales volume.

Typical pricing pressure for our established Diodes products continues. We have experienced moderate price declines versus the prior year periods.

The cost reduction programs announced on October 28, 2013 include two smaller projects to improve the results of the Diodes segment. These projects demonstrate our ongoing effort to improve the results of this segment. See "Cost Management" above.

Optoelectronic Components

Net revenues of the Optoelectronic Components segment were as follows (dollars in thousands):

	Years ended December 31,		
	2013	2012	2011
Net revenues	$228,245	$209,194	$229,886
Change versus comparable prior year period	$19,051	$(20,692)	
Percentage change versus comparable prior year period	9.1 %	-9.0 %	

Changes in Optoelectronic Components segment net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Change in volume	10.6 %	-3.1 %
Decrease in average selling prices	-2.3 %	-3.5 %
Foreign currency effects	1.3 %	-2.8 %
Other	-0.5 %	0.4 %
Net change	9.1 %	-9.0 %

Gross profit as a percentage of net revenues for the Optoelectronic Components segment was as follows:

	Years ended December 31,		
	2013	2012	2011
Gross margin percentage	33.6%	32.5%	32.5%

The Optoelectronic Components segment was relatively stable due to the continued strong demand of the automotive and industrial markets despite being negatively affected by the low demand from distributors in Asia in 2012. The Optoelectronic Components segment has now fully recovered with primarily volume-driven gross margin improvement. The increase in gross profit margin in 2013 is due to increases in volume, partialy offset by lower average selling prices. The segment gross profit margin remained high in 2012 despite a decrease in sales volume and average selling prices.

Typical pricing pressure for our established Optoelectronic Components products continues. We have experienced slight declines in 2013 versus 2012 and moderate declines in 2012 versus 2011.

Resistors & Inductors

Net revenues of the Resistors & Inductors segment were as follows (dollars in thousands):

	Years ended December 31,		
	2013	2012	2011
Net revenues	$706,248	$642,320	$640,854
Change versus comparable prior year period	$63,928	$1,466	
Percentage change versus comparable prior year period	10.0 %	0.2 %	

Changes in Resistors & Inductors segment net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Change in volume	8.0 %	-4.3 %
Decrease in average selling prices	-1.6 %	-1.5 %
Foreign currency effects	1.1 %	-3.1 %
Acquisitions	2.9 %	9.3 %
Other	-0.4 %	-0.2 %
Net change	10.0 %	0.2 %

Gross profit as a percentage of net revenues for the Resistors & Inductors segment was as follows:

	Years ended December 31,		
	2013	2012	2011
Gross margin percentage	31.4%	31.8%	33.4%

The Resistors & Inductors segment has experienced four consecutive quarters of revenue growth. The growth was experienced in almost all end markets and regions. The biggest source of growth was from distributors. The Resistors & Inductors segment was negatively affected in 2012 by a slowing of demand in Europe. The segment gross profit margin remained high, but decreased slightly versus 2012 due to the increased volume and reduced material prices not being able to fully offset the reduction in average selling prices. The segment gross profit margin remained high, but decreased slightly from 2011 to 2012 due to decreases in sales volume.

Along with our successful acquisitions of HiRel Systems and certain assets of Huntington Electric in the previous two years, MCB Industrie is positively contributing to gross margins of the Resistors & Inductors segment.

Average selling prices declined slightly in both 2013 versus 2012 and 2012 versus 2011.

Capacitors

Net revenues of the Capacitors segment were as follows (dollars in thousands):

	Years ended December 31,		
	2013	2012	2011
Net revenues	$439,745	$448,157	$577,816
Change versus comparable prior year period	$(8,412)	$(129,659)	
Percentage change versus comparable prior year period	-1.9%	-22.4%	

Changes in Capacitors segment net revenues were attributable to the following:

	2013 vs. 2012	2012 vs. 2011
Change attributable to:		
Decrease in volume		