CORNING INC /NY
Form 10-K
February 06, 2017
Table of Contents

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

Form 10-K

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

For the fiscal year ended December 31, 2016

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: 1-3247

CORNING INCORPORATED
(Exact name of registrant as specified in its charter)

NEW YORK	16-0393470
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

ONE RIVERFRONT PLAZA, CORNING, NY	14831
(Address of principal executive offices)	(Zip Code)

607-974-9000
(Registrant's telephone number, including area code)

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

Title of each class	Name of each exchange on which registered
Common Stock, $0.50 par value per share	New York Stock Exchange

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

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

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.
Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 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 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 of this Form 10-K.

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

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

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

As of June 30, 2016, the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was $21 billion based on the $20.48 price as reported on the New York Stock Exchange.

There were 928,093,508 shares of Corning's common stock issued and outstanding as of January 31, 2017.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement dated March 17, 2017, and filed for the Registrant's 2017 Annual Meeting of Shareholders are incorporated into Part III of this Annual Report on Form 10-K, as specifically set forth in Part III.

Table of Contents
PART I

Corning Incorporated and its consolidated subsidiaries are hereinafter sometimes referred to as the "Company," the "Registrant," "Corning," or "we."

This report contains forward-looking statements that involve a number of risks and uncertainties. These statements relate to our future plans, objectives, expectations and estimates and may contain words such as "believes," "expects," "anticipates," "estimates," "forecasts," or similar expressions. Our actual results could differ materially from what is expressed or forecasted in our forward-looking statements. Some of the factors that could contribute to these differences include those discussed under "Forward-Looking Statements," "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations," and elsewhere in this report.

Item 1. Business

General

Corning traces its origins to a glass business established in 1851. The present corporation was incorporated in the State of New York in December 1936. The Company's name was changed from Corning Glass Works to Corning Incorporated on April 28, 1989.

Corning Incorporated is a leading innovator in materials science. For more than 165 years, Corning has applied its unparalleled expertise in specialty glass, ceramics, and optical physics to develop products that have created new industries and transformed people's lives. We succeed through sustained investment in research and development, a unique combination of material and process innovation, and close collaboration with customers to solve tough technology challenges. Corning operates in five reportable segments: Display Technologies, Optical Communications, Environmental Technologies, Specialty Materials and Life Sciences, and manufactures products at 98 plants in 17 countries.

Display Technologies Segment

Corning's Display Technologies segment manufactures glass substrates for liquid crystal displays ("LCDs") that are used primarily in LCD televisions, notebook computers and flat panel desktop monitors. This segment develops, manufactures and supplies high quality glass substrates using technology expertise and a proprietary fusion manufacturing process, which Corning invented and is the cornerstone of the Company's technology leadership in the LCD industry. The highly automated process yields glass substrates with a pristine surface and excellent thermal dimensional stability and uniformity – essential attributes for the production of large, high performance LCDs panels. Corning's fusion process is scalable and we believe it is the most cost effective process in producing large size substrates.

We are recognized for providing product innovations that enable our customers to produce larger, lighter, thinner and higher-resolution displays more affordably. Some of the product innovations that we have launched over the past ten years utilizing our world-class processes and capabilities include the following:

- EAGLE XG®, the industry's first LCD glass substrate that is free of heavy metals;
- EAGLE XG® Slim glass, a line of thin glass substrates which enables lighter-weight portable devices and thinner televisions and monitors;
- Corning® Willow™ Glass, our ultra-thin flexible glass for use in next-generation consumer electronic technologies, including curved displays for immersive viewing or mounting on non-flat surfaces. This glass is also used in a

variety of non-display applications, such as decorative laminates for interior architecture and advanced semiconductor packaging; and

- The family of Corning Lotus™ Glass, high-performance display glass developed to enable cutting-edge technologies, including organic light-emitting diode ("OLED") displays and next generation LCDs. These substrate glasses provide industry-leading levels of low total pitch variation, resulting in brighter, more energy-efficient displays with higher resolutions for consumers and better yields for panel makers.

1

Table of Contents

Through the end of 2013, the Display Technologies segment also included the equity affiliate Samsung Corning Precision Materials Co., Ltd. ("Samsung Corning Precision Materials"), of which Corning owned 57.5% and Samsung Display Co., Ltd. ("Samsung Display") owned 42.5%. As described more fully in Note 8 (Acquisitions) to the Consolidated Financial Statements, to extend Corning's leadership in specialty glass and drive earnings growth, Corning entered into a series of strategic and financial agreements with Samsung Display intended to strengthen product and technology collaborations between the two companies. Corning completed the acquisition of Samsung Corning Precision Materials on January 15, 2014.

Corning has LCD glass manufacturing operations in South Korea, Japan, Taiwan and China. Following the acquisition of Samsung Corning Precision Materials, Corning services all specialty glass customers in all regions directly, utilizing its manufacturing facilities throughout Asia.

Patent protection and proprietary trade secrets are important to the Display Technologies segment's operations. Refer to the material under the heading "Patents and Trademarks" for information relating to patents and trademarks.

The Display Technologies segment represented 34% of Corning's sales in 2016.

Optical Communications Segment

Corning invented the world's first low-loss optical fiber in 1970. Since that milestone, we have continued to pioneer optical fiber, cable and connectivity solutions. As global bandwidth demand driven by video usage grows exponentially, telecommunications networks continue to migrate from copper to optical-based systems that can deliver the required cost-effective bandwidth-carrying capacity. Our experience puts us in a unique position to design and deliver optical solutions that reach every edge of the communications network.

This segment is classified into two main product groupings – carrier network and enterprise network. The carrier network group consists primarily of products and solutions for optical-based communications infrastructure for services such as video, data and voice communications. The enterprise network group consists primarily of optical-based communication networks sold to businesses, governments and individuals for their own use.

Our carrier network product portfolio encompassed an array of optical fiber products, including VascadeÒ submarine optical fibers for use in submarine networks; LEAFÒ optical fiber for long-haul, regional and metropolitan networks; SMF-28Ò ULL fiber for more scalable long-haul and regional networks; SMF-28e+Ô single-mode optical fiber that provides additional transmission wavelengths in metropolitan and access networks; ClearCurveÒ ultra-bendable single-mode fiber for use in multiple-dwelling units and fiber-to-the-home applications; and Corning® SMF-28® Ultra Fiber, designed for high performance across the range of long-haul, metro, access, and fiber-to-the-home network applications, combining the benefits of industry-leading attenuation and improved macrobend performance in one fiber. A portion of our optical fiber is sold directly to end users and third-party cablers globally. Corning's remaining fiber production is cabled internally and sold to end users as either bulk cable or as part of an integrated optical solution. Corning's cable products support various outdoor, indoor/outdoor and indoor applications and include a broad range of loose tube, ribbon and drop cable designs with flame-retardant versions available for indoor and indoor/outdoor use.

In addition to optical fiber and cable, our carrier network product portfolio also includes hardware and equipment products, including cable assemblies, fiber optic hardware, fiber optic connectors, optical components and couplers, closures, network interface devices, and other accessories. These products may be sold as individual components or as part of integrated optical connectivity solutions designed for various carrier network applications. Examples of these solutions include our FlexNAP™ terminal distribution system, which provides pre-connectorized distribution and drop cable assemblies for cost-effectively deploying Fiber-to-the-Home ("FTTH") networks; and the Centrix™

platform, which provides a high-density fiber management system with industry-leading density and innovative jumper routing that can be deployed in a wide variety of carrier switching centers.

To keep pace with surging demand for mobile bandwidth, Corning has a full complement of operator-grade distributed antenna systems ("DAS"), including the recently developed Optical Network Evolution wireless platform. The ONE™ Wireless Platform ("ONE") is the first all-optical converged cellular and Wi-Fi® solution built on an all-optical backbone with modular service support. It provides virtually unlimited bandwidth, and meets all of the wireless service needs of large-scale enterprises at a lower cost than the typical DAS solution.

Table of Contents

In addition to our optical-based portfolio, Corning's carrier network portfolio also contains select copper-based products including subscriber demarcation, connection and protection devices, xDSL (different variations of digital subscriber lines) passive solutions and outside plant enclosures. In addition, Corning offers coaxial RF interconnects for the cable television industry as well as for microwave applications for GPS, radars, satellites, manned and unmanned military vehicles, and wireless and telecommunications systems.

Our enterprise network portfolio also includes optical fiber products, including ClearCurveÒ ultra-bendable multimode fiber for data centers and other enterprise network applications; InfiniCorÒ fibers for local area networks; and more recently ClearCurveÒ VSDNÒ ultra-bendable optical fiber designed to support emerging high-speed interconnects between computers and other consumer electronics devices. The remainder of Corning's fiber production is cabled internally and sold to end users as either bulk cable or as part of an integrated optical solution. Corning's cable products include a broad range of tight-buffered, loose tube and ribbon cable designs with flame-retardant versions available for indoor and indoor/outdoor applications that meet local building code requirements.

Corning's hardware and equipment for enterprise network applications include cable assemblies, fiber optic hardware, fiber optic connectors, optical components and couplers, closures and other accessories. These products may be sold as individual components or as part of integrated optical connectivity solutions designed for various network applications. Examples of enterprise network solutions include the Pretium EDGEÒ platform, which provides high-density pre-connectorized solutions for data center applications, and continues to evolve with recent updates for upgrading to 40/100G applications and port tap modules for network monitoring; the previously mentioned ONE Wireless platform, which spans both carrier and enterprise network applications; and our recently introduced optical connectivity solutions to support customer initiatives.

Our optical fiber manufacturing facilities are located in North Carolina, China and India. Cabling operations are located in North Carolina, Germany, Poland, China and smaller regional locations. Our manufacturing operations for hardware and equipment products are located in Texas, Arizona, Mexico, Brazil, Denmark, Germany, Poland, Israel, Australia and China.

Patent protection is important to the segment's operations. The segment has an extensive portfolio of patents relating to its products, technologies and manufacturing processes. The segment licenses certain of its patents to third parties and generates revenue from these licenses, although the royalty income is not currently material to this segment's operating results. Corning is licensed to use certain patents owned by others, which are considered important to the segment's operations. Refer to the material under the heading "Patents and Trademarks" for information relating to the Company's patents and trademarks.

The Optical Communications segment represented 32% of Corning's sales in 2016.

Environmental Technologies Segment

Corning's Environmental Technologies segment manufactures ceramic substrates and filter products for emissions control in mobile and stationary applications around the world. In the early 1970s, Corning developed an economical, high-performance cellular ceramic substrate that is now the standard for catalytic converters in vehicles worldwide. As global emissions control regulations tighten, Corning has continued to develop more effective and durable ceramic substrate and filter products for gasoline and diesel applications. Corning manufactures substrate and filter products in New York, Virginia, China, Germany and South Africa. Corning sells its ceramic substrate and filter products worldwide to catalyzers and manufacturers of emission control systems who then sell to automotive and diesel vehicle or engine manufacturers. Although most sales are made to the emission control systems manufacturers, the use of Corning substrates and filters is generally required by the specifications of the automotive and diesel vehicle or engine

manufacturers.

Patent protection is important to the segment's operations. The segment has an extensive portfolio of patents relating to its products, technologies and manufacturing processes. Corning is licensed to use certain patents owned by others, which are also considered important to the segment's operations. Refer to the material under the heading "Patents and Trademarks" for information relating to the Company's patents and trademarks.

The Environmental Technologies segment represented 11% of Corning's sales in 2016.

Table of Contents

Specialty Materials Segment

The Specialty Materials segment manufactures products that provide more than 150 material formulations for glass, glass ceramics and fluoride crystals to meet demand for unique customer needs. Consequently, this segment operates in a wide variety of commercial and industrial markets that include display optics and components, semiconductor optics components, aerospace and defense, astronomy, ophthalmic products, telecommunications components and cover glass that is optimized for portable display devices.

Our cover glass, known as Corning® Gorilla® Glass, is a thin sheet glass designed specifically to function as a cover glass for display devices such as mobile phones, tablets and notebook PCs. Elegant and lightweight, Corning Gorilla Glass is durable enough to resist many real-world events that commonly cause glass failure, enabling exciting new applications in technology and design. In 2016, Corning unveiled its latest Corning Gorilla Glass innovation, Corning® Gorilla® Glass 5, which is designed to provide further protection against breakage while maintaining optical clarity, touch sensitivity, and damage resistance.

Corning Gorilla Glass is manufactured in Kentucky, South Korea, Japan and Taiwan.

Semiconductor optics manufactured by Corning includes high-performance optical material products, optical-based metrology instruments, and optical assemblies for applications in the global semiconductor industry. Corning's semiconductor optics products are manufactured in New York.

Other specialty glass products include glass lens and window components and assemblies and are made in New York, New Hampshire, Kentucky and France, and sourced from China.

Patent protection is important to the segment's operations. The segment has a growing portfolio of patents relating to its products, technologies and manufacturing processes. Brand recognition and loyalty, through well-known trademarks, are important to the segment. Refer to the material under the heading "Patents and Trademarks" for information relating to the Company's patents and trademarks.

The Specialty Materials segment represented approximately 12% of Corning's sales in 2016.

Life Sciences Segment

As a leading developer, manufacturer and global supplier of scientific laboratory products for 100 years, Corning's Life Sciences segment collaborates with researchers and drug manufacturers seeking new approaches to increase efficiencies, reduce costs and compress timelines. Using unique expertise in the fields of materials science, surface science, biochemistry and biology, the segment provides innovative solutions that improve productivity and enable breakthrough discoveries.

Life Sciences laboratory products include consumables (plastic vessels, specialty surfaces and media), as well as general labware and equipment, that are used for advanced cell culture research, bioprocessing, genomics, drug discovery, microbiology and chemistry. Corning sells life science products under these primary brands: Corning, Falcon, PYREX, Axygen, and Gosselin. The products are marketed worldwide, primarily through distributors to pharmaceutical and biotechnology companies, academic institutions, hospitals, government entities, and other facilities. Corning manufactures these products in the United States in Maine, New York, New Jersey, California, Utah, Virginia, Massachusetts and North Carolina, and outside of the U.S. in Mexico, France, Poland and China.

In addition to being a global leader in laboratory consumables for life science research, Corning continues to develop and produce innovative technologies aimed at the growing biologic drug production markets.

Patent protection is important to the segment's operations. The segment has a growing portfolio of patents relating to its products, technologies and manufacturing processes. Brand recognition and loyalty, through well-known trademarks, are important to the segment. Refer to the material under the heading "Patents and Trademarks" for more information.

The Life Sciences segment represented approximately 9% of Corning's sales in 2016.

Table of Contents

All Other

All other segments that do not meet the quantitative threshold for separate reporting have been grouped as "All Other." This group is primarily comprised of the results of Corning's Pharmaceutical Technologies business, our non-LCD glass business, new product lines and development projects, as well as certain corporate investments such as Eurokera and Keraglass equity affiliates.

The All Other segment represented 2% of Corning's sales in 2016.

Additional explanation regarding Corning and its five reportable segments, as well as financial information about geographic areas, is presented in Management's Discussion and Analysis of Financial Condition and Results of Operations and Note 20 (Reportable Segments) to the Consolidated Financial Statements.

Corporate Investments

Dow Corning Corporation. Prior to May 31, 2016, Corning and The Dow Chemical Company ("Dow Chemical") each owned half of Dow Corning Corporation ("Dow Corning"), an equity company headquartered in Michigan that manufactures silicone products worldwide. Dow Corning was the majority-owner of Hemlock Semiconductor Group ("HSG"), a market leader in the production of high purity polycrystalline silicon for the semiconductor and solar energy industries.

On May 31, 2016, Corning completed the strategic realignment of its equity investment in Dow Corning pursuant to the Transaction Agreement announced in December 2015. Under the terms of the Transaction Agreement, Corning exchanged with Dow Corning its 50% stock interest in Dow Corning for 100% of the stock of a newly formed entity, which holds an equity interest in HSG and approximately $4.8 billion in cash.

Prior to realignment, HSG, a consolidated subsidiary of Dow Corning, was an indirect equity investment of Corning. Upon completion of the exchange, Corning now has a direct equity investment in HSG. Because our ownership percentage in HSG did not change as a result of the realignment, the investment in HSG is recorded at its carrying value, which had a negative carrying value of $383 million at the transaction date. The negative carrying value resulted from a one-time charge to this entity in 2014 for the permanent abandonment of certain assets. Excluding this charge, the entity is profitable and is expected to recover its equity in the near term.

Pittsburgh Corning Corporation. Prior to the second quarter of 2016, Corning and PPG Industries, Inc. each owned 50% of the capital stock of Pittsburgh Corning Corporation ("PCC"). PCC filed for Chapter 11 reorganization in 2000 and the Modified Third Amended Plan of Reorganization for PCC (the "Plan") became effective in April 2016. In the second quarter of 2016, Corning contributed its equity interests in PCC and Pittsburgh Corning Europe N.V. as required by the Plan and recognized a gain of $56 million for the difference between the fair value of the asbestos litigation liability and carrying value of the investment.

Additional information about corporate investments is presented in Note 7 (Investments) to the Consolidated Financial Statements.

Competition

Corning competes with many large and varied manufacturers, both domestic and foreign. Some of these competitors are larger than Corning, and some have broader product lines. Corning strives to maintain and improve its market position through technology and product innovation. For the future, Corning believes its competitive advantage lies in its commitment to research and development, its commitment to reliability of supply and product quality and technical

specification of its products. There is no assurance that Corning will be able to maintain or improve its market position or competitive advantage.

Display Technologies Segment

We believe Corning is the largest worldwide producer of glass substrates for LCD displays. The environment for LCD glass substrate products is very competitive and Corning believes it has sustained its competitive advantages by investing in new products, providing a consistent and reliable supply, and continually improving its proprietary fusion manufacturing process. This process allows us to deliver glass that is larger, thinner and lighter, with exceptional surface quality and without heavy metals. Asahi Glass Co. Ltd. and Nippon Electric Glass Co. Ltd. are Corning's principal competitors in display glass substrates.

Table of Contents

Optical Communications Segment

Corning believes it maintains a leadership position in the segment's principal product groups, which include carrier and enterprise networks. The competitive landscape includes industry consolidation, price pressure and competition for the innovation of new products. These competitive conditions are likely to persist. Corning believes its large scale manufacturing experience, fiber process, technology leadership and intellectual property provide cost advantages relative to several of its competitors.

The primary competing producers of the Optical Communications segment are Commscope and Prysmian Group.

Environmental Technologies Segment

Corning believes it maintains a leadership position in the worldwide automotive ceramic substrate products, and a strong presence in the heavy-duty and light-duty diesel vehicle market. The Company believes its competitive advantage in automotive ceramic substrate products for catalytic converters and diesel filter products for exhaust systems is based upon global presence, customer service, engineering design services and product innovation. Corning's Environmental Technologies products face principal competition from NGK Insulators, Ltd. and Ibiden Co. Ltd.

Specialty Materials Segment

Corning has deep capabilities in materials science, optical design, shaping, coating, finishing, metrology, and system assembly. Additionally, we are addressing emerging needs of the consumer electronics industry with the development of chemically strengthened glass. Corning Gorilla Glass is a thin-sheet glass that is better able to survive events that most commonly cause glass failure. Its advanced composition allows a deeper layer of chemical strengthening than is possible with most other chemically strengthened glasses, making it both durable and damage resistant. Our products and capabilities in this segment position the Company to meet the needs of a broad array of markets including display, semiconductor, aerospace/defense, astronomy, vision care, industrial/commercial, and telecommunications. For this segment, Schott, Asahi Glass Co. Ltd., Nippon Electric Glass Co. Ltd. and Heraeus are the main competitors.

Life Sciences Segment

Corning seeks to maintain a competitive advantage by emphasizing product quality, global distribution, supply chain efficiency, a broad product line and superior product attributes. Our principle worldwide competitors include Thermo Fisher Scientific, Inc., Greiner Group AG, Eppendorf AG and Sarsedt AG. Corning also faces increasing competition from large distributors that have pursued backward integration or introduced private label products.

Raw Materials

Corning's manufacturing processes and products require access to uninterrupted power sources, significant quantities of industrial water, certain precious metals, and various batch materials. Availability of resources (ores, minerals, polymers, helium and processed chemicals) required in manufacturing operations, appears to be adequate. Corning's suppliers, from time to time, may experience capacity limitations in their own operations, or may eliminate certain product lines. Corning believes it has adequate programs to ensure a reliable supply of raw and batch materials as well as precious metals. For many products, Corning has alternate suppliers that would allow operations to continue without interruption in the event of specific materials shortages.

Certain key materials and proprietary equipment used in the manufacturing of products are currently sole-sourced or available only from a limited number of suppliers. To minimize this risk, Corning closely monitors raw materials and

equipment with limited availability or which are sourced through one supplier. However, any future difficulty in obtaining sufficient and timely delivery of components and/or raw materials could result in lost sales due to delays or reductions in product shipments, or reductions in Corning's gross margins.

Table of Contents

Patents and Trademarks

Inventions by members of Corning's research and engineering staff continue to be important to the Company's growth. Patents have been granted on many of these inventions in the United States and other countries. Some of these patents have been licensed to other manufacturers, including companies in which Corning has equity investments. Many of our earlier patents have now expired, but Corning continues to seek and obtain patents protecting its innovations. In 2016, Corning was granted about 460 patents in the U.S. and over 1,100 patents in countries outside the U.S.

Each business segment possesses a patent portfolio that provides certain competitive advantages in protecting Corning's innovations. Corning has historically enforced, and will continue to enforce, its intellectual property rights. At the end of 2016, Corning and its wholly-owned subsidiaries owned over 9,660 unexpired patents in various countries of which over 3,840 were U.S. patents. Between 2017 and 2019, approximately 6% of these patents will expire, while at the same time Corning intends to seek patents protecting its newer innovations. Worldwide, Corning has about 10,500 patent applications in process, with about 2,500 in process in the U.S. Corning believes that its patent portfolio will continue to provide a competitive advantage in protecting the Company's innovation, although Corning's competitors in each of its businesses are actively seeking patent protection as well.

While each of our reportable segments has numerous patents in various countries, no one patent is considered material to any of these segments. Important U.S.-issued patents in our reportable segments include the following:

- Display Technologies: patents relating to glass compositions and methods for the use and manufacture of glass substrates for display applications.
- Optical Communications: patents relating to (i) optical fiber products including low-loss optical fiber, high data rate optical fiber, and dispersion compensating fiber, and processes and equipment for manufacturing optical fiber, including methods for making optical fiber preforms and methods for drawing, cooling and winding optical fiber; (ii) optical fiber ribbons and methods for making such ribbon, fiber optic cable designs and methods for installing optical fiber cable; (iii) optical fiber connectors, termination and storage and associated methods of manufacture; and (iv) distributed communication systems.
- Environmental Technologies: patents relating to cellular ceramic honeycomb products, together with ceramic batch and binder system compositions, honeycomb extrusion and firing processes, and honeycomb extrusion dies and equipment for the high-volume, low-cost manufacture of such products.
- Specialty Materials: patents relating to protective cover glass, ophthalmic glasses and polarizing dyes, and semiconductor/microlithography optics and blanks, metrology instrumentation and laser/precision optics, glass polarizers, specialty fiber, and refractories.
- Life Sciences: patents relating to methods and apparatus for the manufacture and use of scientific laboratory equipment including multiwell plates and cell culture products, as well as equipment and processes for label independent drug discovery.

Products reported in All Other include development projects, new product lines, and other businesses or investments that do not meet the threshold for separate reporting.

Approximate number of patents granted to our reportable segments follows:

	Total number of patents worldwide	U.S. patents	Important patents expiring between 2017 and 2019
Display Technologies	1,700	370	11
Optical Communications	3,500	1,600	10

Environmental Technologies	800	320	36
Specialty Materials	920	430	8
Life Sciences	600	240	16

Many of the Company's patents are used in operations or are licensed for use by others, and Corning is licensed to use patents owned by others. Corning has entered into cross-licensing arrangements with some major competitors, but the scope of such licenses has been limited to specific product areas or technologies.

Corning's principal trademarks include the following: Axygen, Corning, Celcor, ClearCurve, DuraTrap, Eagle XG, Edge8, Gorilla, Gosselin, HPFS, Leaf, Pyrex, Steuben, Falcon, SMF-28e, Unicam, and Willow.

Table of Contents

Protection of the Environment

Corning has a program to ensure that its facilities are in compliance with state, federal and foreign pollution-control regulations. This program has resulted in capital and operating expenditures each year. In order to maintain compliance with such regulations, capital expenditures for pollution control in operations were approximately $14 million in 2016 and are estimated to be $31 million in 2017.

Corning's 2016 consolidated operating results were charged with approximately $43 million for depreciation, maintenance, waste disposal and other operating expenses associated with pollution control. Corning believes that its compliance program will not place it at a competitive disadvantage.

Employees

At December 31, 2016, Corning had approximately 40,700 full-time employees. From time to time, Corning also retains consultants, independent contractors, temporary and part-time workers.

Table of Contents

Executive Officers of the Registrant

James P. Clappin President, Corning Glass Technologies
Mr. Clappin joined Corning in 1980 as a process engineer. He transitioned to GTE Corporation in 1983 when the Central Falls facility was sold and returned to Corning in 1988. He began working in the display business in 1994. Mr. Clappin relocated to Japan in 1996, as plant manager at Corning Display Technologies Shizuoka facility. In 2002, he was appointed as general manager of CDT worldwide business. He served as president of Corning Display Technologies from September 2005 through July 2010. He was appointed president, Corning Glass Technologies, in 2010. Age 59.

Martin J. Curran Executive Vice President and Corning Innovation Officer
Mr. Curran joined Corning in 1984 and has held a variety of roles in finance, manufacturing, and marketing. He has served as senior vice president, general manager for Corning Cable Systems Hardware and Equipment Operations in the Americas, responsible for operations in Hickory, North Carolina; Keller, Texas; Reynosa, Mexico; Shanghai, China; and the Dominican Republic. He has also served as senior vice president and general manager for Corning Optical Fiber. Mr. Curran was appointed as Corning's first innovation officer in August 2012. Age 58.

Jeffrey W. Evenson Senior Vice President and Chief Strategy Officer
Dr. Evenson joined Corning in June 2011 as senior vice president and operations chief of staff. In 2015, he was named Chief Strategy Officer. He serves on the Management Committee and oversees a variety of strategic programs and growth initiatives. Prior to joining Corning, Dr. Evenson was a senior vice president with Sanford C. Bernstein, where he served as a senior analyst since 2004. Before that, Dr. Evenson was a partner at McKinsey & Company, where he led technology and market assessment for early-stage technologies. Age 51.

Lisa Ferrero Senior Vice President and Chief Administrative Officer
Ms. Ferrero joined Corning in 1987 as a statistician and held various production management positions until joining Display Technologies in 1995 as a market analyst in Tokyo. While in Japan, she was appointed export sales manager for Taiwan and Korea. In 1998, she returned to Corning, N.Y. and was named market development manager. She was appointed director of strategic marketing, planning, and analysis for Display Technologies in 2000. In 2002, Ms. Ferrero joined Environmental Technologies as business manager for the heavy-duty diesel business and was named director of the automotive substrates business in 2003. She was named vice president and deputy general manager, Display Technologies Asia in June 2005. She served as general manager of Corning Display Technologies from July 2010 through 2015 overseeing operations across four regions: China, Japan, Taiwan and the U.S. Ms. Ferrero became senior vice president and chief administrative officer in January 2016. Age 53.

Clark S. Kinlin Executive Vice President
Mr. Kinlin joined Corning in 1981 in the Specialty Materials division. From 1985 to 1995 he worked in the Optical Fiber division. In 1995, he joined Corning Consumer Products. In 2000, Mr. Kinlin was named president, Corning International Corporation and, in 2003, he was appointed as general manager for Greater China. From April 2007 to March 2008, he was chief operating officer, Corning Cable Systems (now Corning Optical Communications) and was named president and chief executive officer in 2008. He was appointed executive vice president in 2012. Age 57.

Lawrence D. McRae Vice Chairman and Corporate Development Officer
Mr. McRae joined Corning in 1985 and served in various financial, sales and marketing positions. He was appointed vice president Corporate Development in 2000, senior vice president Corporate Development in 2003, senior vice president Strategy and Corporate Development in October 2005, and executive vice president Strategy and Corporate Development in 2010. He was appointed to his present position in August 2015. Age 58.

David L. Morse Executive Vice President and Chief Technology Officer

Dr. Morse joined Corning in 1976 in glass research and worked as a composition scientist in developing and patenting several major products. He served in a variety of product and materials research and technology director roles and was appointed division vice president and technology director for photonic technology groups beginning in March 1999. He became director of corporate research, science and technology in December 2001. He was appointed vice president in January 2003, becoming senior vice president and director of corporate research in 2006. Dr. Morse was appointed to his current position in May 2012. He is a member of the National Academy of Engineering and the National Chemistry Board. Age 64.

Table of Contents

Eric S. Musser Executive Vice President, Corning Technologies and International
Mr. Musser joined Corning in 1986 and served in a variety of manufacturing positions at fiber plants in Wilmington, N.C. and Melbourne, Australia, before becoming manufacturing strategist for the Optical Fiber business in 1996. Mr. Musser joined Corning Lasertron in 2000 and became president later that year. He was named director, manufacturing operations for Photonic Technologies in 2002. In 2003, he returned to Optical Fiber as division vice president, development and engineering and was named vice president and general manager in 2005. In 2007, he was appointed general manager of Corning Greater China and was named president of Corning International in 2012. Mr. Musser was appointed executive vice president in 2014. Age 57.

Christine M. Pambianchi Senior Vice President, Human Resources
Ms. Pambianchi joined Corning in 2000 as division human resource manager, Corning Optical Fiber, and later was named director, Human Resources, Corning Optical Communications. She has led the Human Resources function since January 2008 when she was named vice president, Human Resources. Ms. Pambianchi was appointed to senior vice president, Human Resources, in 2010, and is responsible for leading Corning's global human resource function. Age 48.

Mark S. Rogus Senior Vice President and Treasurer
Mr. Rogus joined Corning in 1996 as manager, Corporate Finance. In 1999 he was appointed assistant treasurer. He was appointed as vice president and treasurer in December 2000, responsible for Corning's worldwide treasury functions, including corporate finance, treasury operations, risk management, investment and pension plans. He has served as senior vice president and treasurer of Finance since January 2004. Prior to joining Corning, Mr. Rogus was a senior vice president at Wachovia Bank where he managed the bank's business development activities in the U.S mid-Atlantic region and Canada for both investment and non-investment grade clients. Age 57.

Edward A. Schlesinger Vice President and Corporate Controller
Mr. Schlesinger joined Corning in 2013 as senior vice president and chief financial officer of Corning Optical Communications. He led the Finance function for Corning Optical Communications and served on the Communications Leadership Team. He was named vice president and corporate controller in September 2015, and appointed principal accounting officer in December 2015. Prior to joining Corning, Mr. Schlesinger served as Vice President, Finance and Sector Chief Financial Officer for two of Ingersoll Rand's business segments. Mr. Schlesinger has a financial career that spans more than 20 years garnering extensive expertise in technical financial management and reporting. Age 49.

Lewis A. Steverson Senior Vice President and General Counsel
Mr. Steverson joined Corning in June 2013 as senior vice president and general counsel. Prior to joining Corning, Mr. Steverson served as senior vice president, general counsel, and secretary of Motorola Solutions, Inc. During his 18 years with Motorola, he held a variety of legal leadership roles across the company's numerous business units. Prior to Motorola, Mr. Steverson was in private practice at the law firm of Arnold & Porter. Age 53.

R. Tony Tripeny Senior Vice President and Chief Financial Officer
Mr. Tripeny joined Corning in 1985 as the corporate accounting manager of Corning Cable Systems, and became the Keller, Texas facility's plant controller in 1989. In 1993, he was appointed equipment division controller of Corning Cable Systems and, in 1996 corporate controller. Mr. Tripeny was appointed chief financial officer of Corning Cable Systems in July 2000. In 2003, he took on the additional role of Telecommunications group controller. He was appointed division vice president, operations controller in August 2004, vice president, corporate controller in October 2005, and senior vice president and principal accounting officer in April 2009. Mr. Tripeny was appointed to his current position as senior vice president and chief financial officer in September 2015. He is a member of the board of directors of Hardinge, Inc. Age 57.

Wendell P. Weeks Chairman, Chief Executive Officer and President

Mr. Weeks joined Corning in 1983. He was named vice president and general manager of the Optical Fiber business in 1996, senior vice president in 1997, senior vice president of Opto-Electronics in 1998, executive vice president in 1999, and president, Corning Optical Communications in 2001. Mr. Weeks was named president and chief operating officer of Corning in 2002, president and chief executive officer in 2005 and chairman and chief executive officer on April 26, 2007. He added the title of president in December 2010. Mr. Weeks is a director of Merck & Co. Inc. and Amazon.com, Inc. Mr. Weeks has been a member of Corning's Board of Directors since 2000. Age 57.

Table of Contents

Document Availability

A copy of Corning's 2016 Annual Report on Form 10-K filed with the Securities and Exchange Commission is available upon written request to Corporate Secretary, Corning Incorporated, One Riverfront Plaza, Corning, NY 14831. The Annual Report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments pursuant to Section 13(a) or 15(d) of the Exchange Act of 1934 and other filings are available as soon as reasonably practicable after such material is electronically filed or furnished to the SEC, and can be accessed electronically free of charge, through the Investor Relations page on Corning's website at www.corning.com. The information contained on the Company's website is not included in, or incorporated by reference into, this Annual Report on Form 10-K.

Other

Additional information in response to Item 1 is found in Note 20 (Reportable Segments) to the Consolidated Financial Statements and in Item 6 (Selected Financial Data).

Item 1A. Risk Factors

We operate in rapidly changing economic, political, and technological environments that present numerous risks, many of which are driven by factors that we cannot control or predict. Our operations and financial results are subject to various risks and uncertainties, including those described below, that could adversely affect our business, financial condition, results of operations, cash flows, our ability to successfully execute our strategy and capital allocation framework, and the trading price of our common stock or debt. The following discussion of "risk factors" identifies the most significant factors that may adversely affect our business, operations, financial position or future financial performance. This information should be read in conjunction with MD&A and the consolidated financial statements and related notes incorporated by reference into this report. The following discussion of risks is not all inclusive but is designed to highlight what we believe are important factors to consider, as these factors could cause our future results to differ from those in the forward-looking statements and from historical trends.

As a global company, we face many risks which could adversely impact our operations and reported financial results

We are a global company and derive a substantial portion of our revenues from, and have significant operations, outside of the United States. Our international operations include manufacturing, assembly, sales, research and development, customer support, and shared administrative service centers.

Compliance with laws and regulations increases our costs. We are subject to both U.S. laws and local laws which, among other things, include data privacy requirements, employment and labor laws, tax laws, anti-competition regulations, prohibitions on payments to governmental officials, import and trade restrictions and export requirements. Non-compliance or violations could result in fines, criminal sanctions against us, our officers or our employees, and prohibitions on the conduct of our business. Such violations could result in prohibitions on our ability to offer our products and services in one or more countries and could also materially damage our reputation, our brand, our international expansion efforts, our ability to attract and retain employees, our business and our operating results. Our success depends, in part, on our ability to anticipate and manage these risks.

We are also subject to a variety of other risks in managing a global organization, including those related to:

- The economic and political conditions in each country or region;
- Complex regulatory requirements affecting international trade and investment, including anti-dumping laws, export controls, the Foreign Corrupt Practices Act and local laws prohibiting improper payments. Our operations may be

adversely affected by changes in the substance or enforcement of these regulatory requirements, and by actual or alleged violations of them;

- Fluctuations in currency exchange rates, convertibility of currencies and restrictions involving the movement of funds between jurisdictions and countries;
- Sovereign and political risks that may adversely affect Corning's profitability and assets;
- Geographical concentration of our factories and operations, and regional shifts in our customer base;
- Periodic health epidemic concerns;
- Political unrest, confiscation or expropriation of our assets by foreign governments, terrorism and the potential for other hostilities;
- Difficulty in protecting intellectual property, sensitive commercial and operations data, and information technology systems;
- Differing legal systems, including protection and treatment of intellectual property and patents;

Table of Contents

·Complex, or competing tax regimes;
·Tariffs, trade duties and other trade barriers including anti-dumping duties;
·Difficulty in collecting obligations owed to us;
·Natural disasters such as floods, earthquakes, tsunamis and windstorms; and
·Potential loss of utilities or other disruption affecting manufacturing.

Corning's Display Technologies segment generates a significant amount of the Company's profits and cash flow. Any significant decrease in LCD glass pricing could have a material and negative impact on our financial results

Corning's ability to generate profits and operating cash flow depends largely upon the profitability of our LCD glass business, which is subject to continuous pricing pressure due to intense industry competition, potential over-capacity, and development of new technologies. If we are not able to achieve proportionate reductions in costs or sustain our current rate of cost reduction to offset potential pricing pressures it could have a material adverse impact on our financial results.

Because we have a concentrated customer base in each of our businesses, our sales could be negatively impacted by the actions or insolvency of one or more key customers, as well as our ability to retain these customers

A relatively small number of customers accounted for a high percentage of net sales in our reportable segments. Mergers and consolidations between customers could result in further concentration of Corning's customer base. If further concentration occurs or a key customer becomes insolvent, the loss of a key customer could result in a substantial loss of sales and reduction in anticipated in cash flows. Unforeseen events or actions on the part of Corning could also result in the loss of customers, resulting in further customer concentration.

The following table details the number of combined customers of our segments that accounted for a large percentage of segment net sales:

	Number of combined customers	% of total segment net sales in 2016
Display Technologies	3	65%
Optical Communications	1	15%
Environmental Technologies	3	85%
Specialty Materials	3	56%
Life Sciences	2	46%

Business disruptions could affect our operating results

A significant portion of our manufacturing, research and development activities, and certain other critical business operations are concentrated in a few geographic areas. A major earthquake, fire or other catastrophic event that results in the destruction or disruption of any of our critical facilities could severely affect our ability to conduct normal business operations and, as a result, our future financial results could be materially and adversely affected. For example, certain manufacturing sites require high quality, continuous, and uninterrupted power and access to industrial water. Unplanned outages could have a material negative impact on our operations and ability to supply our customers.

Additionally, a significant amount of the specialized manufacturing capacity for our reportable segments is concentrated in single-site locations and it is reasonably possible that the operations of one or more such facilities could be disrupted. Due to the specialized nature of the assets, it may not be possible to find replacement capacity

quickly or substitute production from other facilities. Accordingly, a disruption at a single-site manufacturing operation could significantly impact Corning's ability to supply its customers and could produce a near-term severe impact on our individual businesses and the Company as a whole.

Table of Contents

We may experience difficulties in enforcing our intellectual property rights, which could result in loss of market share, and we may be subject to claims of infringement of the intellectual property rights of others

We rely on patent and trade secret laws, copyright, trademark, confidentiality procedures, controls and contractual commitments to protect our intellectual property rights. Despite our efforts, these protections may be limited and we may encounter difficulties in protecting our intellectual property rights or obtaining rights to additional intellectual property necessary to permit us to continue or expand our businesses. We cannot provide assurance that the patents that we hold or may obtain will provide meaningful protection against our competitors. Changes in or enforcement of laws concerning intellectual property, worldwide, may affect our ability to prevent or address the misappropriation of, or the unauthorized use of, our intellectual property, potentially resulting in loss of market share. Litigation may be necessary to enforce our intellectual property rights. Litigation is inherently uncertain and outcomes are often unpredictable. If we cannot protect our intellectual property rights against unauthorized copying or use, or other misappropriation, we may not remain competitive.

The intellectual property rights of others could inhibit our ability to introduce new products. Other companies hold patents on technologies used in our industries and are aggressively seeking to expand, enforce and license their patent portfolios. We periodically receive notices from, or have lawsuits filed against us by third parties claiming infringement, misappropriation or other misuse of their intellectual property rights and/or breach of our agreements with them. These third parties often include entities that do not have the capabilities to design, manufacture, or distribute products or that acquire intellectual property like patents for the sole purpose of monetizing their acquired intellectual property through asserting claims of infringement and misuse. Such claims of infringement or misappropriation may result in loss of revenue, substantial costs, or lead to monetary damages or injunctive relief against us.

Information technology dependency and security vulnerabilities could lead to reduced revenue, liability claims, or competitive harm

The Company is dependent on information technology ("IT") systems and infrastructure for its business and manufacturing controls. Our IT systems may be vulnerable to disruptions from human error, outdated applications, computer viruses, natural disasters, unauthorized access, cyber-attack and other similar disruptions. Any significant disruption, breakdown, intrusion, interruption or corruption of these systems or data breaches could cause the loss of data, equipment damage, downtime, and/or safety related issues and could have a material adverse effect on our business. Like other global companies, we have, from time to time, experienced incidents related to our IT systems, and expect that such incidents will continue, including malware and computer virus attacks, unauthorized access, systems failures and disruptions. We have measures and defenses in place against unauthorized access, but we may not be able to prevent, immediately detect, or remediate such events. A material breach in the security of our IT systems could include the theft of our intellectual property or trade secrets. Such disruptions or security breaches could result in the theft, unauthorized use or publication of our intellectual property and/or confidential business information, harm our competitive position, disrupt our manufacturing, reduce the value of our investment in research and development and other strategic initiatives, or otherwise adversely affect our business.

Additionally, we believe that utilities and other operators of critical infrastructure that serve our facilities face heightened security risks, including cyber-attack. In the event of such an attack, disruption in service from our utility providers could disrupt our manufacturing operations which rely on a continuous source of power (electrical, gas, etc.).

We may not earn a positive return from our research, development and engineering investments

Developing our products through our innovation model of research and development is expensive and often involves a long investment cycle. We make significant expenditures and investments in research and development and four process engineering platforms that may earn an economic return. If our investments do not provide a pipeline of new technologies that our customers demand or lower cost manufacturing platforms, it could negatively impact our revenues and operating margins both near- and long-term.

We have significant exposure to foreign currency movements and to counterparties of our related derivatives portfolio

A large portion of our sales, profit and cash flows are transacted in non-U.S. dollar currencies and we expect that we will continue to realize gains or losses with respect to these exposures. We also maintain a significant portfolio of over the counter derivatives to hedge our projected currency exposure to the Japanese yen, New Taiwan dollar, South Korean won, Chinese yuan and euro. We are exposed to potential losses in the event of non-performance by our counterparties to these derivative contracts. Any failure of a counterparty to pay on such a contract when due could materially impact our results of operations, financial position, and cash flows.

Table of Contents

For example, we will experience foreign currency gains and losses in certain instances if it is not possible or cost effective to hedge our currency exposures or should we elect not to hedge certain currency exposures. Alternatively, we may experience gains or losses if the underlying exposure which we have hedged change (increases or decreases) and we are unable to reverse, unwind, or terminate the hedges concurrent with the change in the underlying notional exposure.

Our ultimate realized loss or gain with respect to currency fluctuations will generally depend on the size and type of cross-currency exposures that we enter into, the exchange rates associated with these exposures and changes in those rates, whether we have entered into foreign currency contracts to offset these exposures and other factors. Our hedge portfolio may reduce our flexibility to respond to price moves by our Display Technologies segment competitors.

All of these factors could materially impact our results of operations, anticipated future results, financial position and cash flows, the timing of which is variable and generally outside of our control.

If we are unable to obtain certain specialized equipment, raw and batch materials or natural resources required in our products or processes, our business will suffer

Our ability to meet customer demand depends, in part, on our ability to obtain timely and adequate delivery of equipment, parts and components from our suppliers. We may experience shortages that could adversely affect our operations. There can be no assurances that we will not encounter problems in the future. Certain manufacturing equipment and components are available only from single or limited sources, and we may not be able to find alternate sources in a timely manner. A reduction, interruption or delay of supply, or a significant increase in the price for supplies, such as manufacturing equipment, precious metals, raw materials, utilities including energy and industrial water, could have a material adverse effect on our businesses.

We use specialized raw materials from single-source suppliers (e.g., specific mines or quarries) and natural resources (e.g., helium) in certain products and processes. If a supplier is unable to provide the required raw materials or the natural resource is in scarce supply or not readily available, we may be unable to change our product composition or manufacturing process in order to prevent a disruption to our business.

We have incurred, and may in the future incur, goodwill and other intangible asset impairment charges

At December 31, 2016, Corning had goodwill and other intangible assets of $2.4 billion. While we believe the estimates and judgments about future cash flows used in the goodwill impairment tests are reasonable, we cannot provide assurance that additional impairment charges in the future will not be required if the expected cash flow estimates as projected by management do not occur, especially if an economic recession occurs and continues for a lengthy period or becomes severe, or if acquisitions and investments made by the Company fail to achieve expected returns.

Changes in our effective tax rate or tax liability may have an adverse effect on our results of operations

Our effective tax rate could be adversely impacted by several factors, including:

- Changes in the relative amounts of income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;
- Changes in tax laws, tax treaties and regulations or the interpretation of them;
- Changes to our assessment about the realizability of our deferred tax assets that are based on estimates of our future results, the prudence and feasibility of possible tax planning strategies, and the economic and political environments in which we do business;

- The outcome of current and future tax audits, examinations, or administrative appeals;
- Changes in generally accepted accounting principles that affect the accounting for taxes; and
- Limitations or adverse findings regarding our ability to do business in some jurisdictions.

Table of Contents

We may have additional tax liabilities

We are subject to income taxes in the U.S. and many foreign jurisdictions and are commonly audited by various tax authorities. In the ordinary course of our business, there are many transactions and calculations where the ultimate tax determination is uncertain. Significant judgment is required in determining our worldwide provision for income taxes. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income tax provisions and accruals. The results of an audit or litigation could have a material effect on our financial statements in the period or periods for which that determination is made.

A significant amount of our net profits and cash flows are generated from outside the U.S., and certain repatriation of funds currently held in foreign jurisdictions may result in higher effective tax rates for the Company. In addition, there have been proposals to change U.S. tax laws that could significantly impact how U.S. global corporations are taxed. Although we cannot predict whether or in what form proposed legislation may pass, if enacted certain proposals could have a material adverse impact on our tax expense and cash flow.

Our innovation model depends on our ability to attract and retain specialized experts in our core technologies

Our innovation model requires us to employ highly specialized experts in glass science, ceramic science, and optical physics to conduct our research and development and engineer our products and design our manufacturing facilities. The loss of the services of any member of our key research and development or engineering team without adequate replacement, or the inability to attract new qualified personnel, could have a material adverse effect on our operations and financial performance.

We are subject to strict environmental regulations and regulatory changes that could result in fines or restrictions that interrupt our operations

Some of our manufacturing processes generate chemical waste, waste water, other industrial waste or greenhouse gases, and we are subject to numerous laws and regulations relating to the use, storage, discharge and disposal of such substances. We have installed anti-pollution equipment for the treatment of chemical waste and waste water at our facilities. We have taken steps to control the amount of greenhouse gases created by our manufacturing operations. However, we cannot provide assurance that environmental claims will not be brought against us or that government regulators will not take steps to adopt more stringent environmental standards.

Any failure on our part to comply with any present or future environmental regulations could result in the assessment of damages or imposition of fines against us, or the suspension/cessation of production or operations. In addition, environmental regulations could require us to acquire costly equipment, incur other significant compliance expenses or limit or restrict production or operations and thus materially and negatively affect our financial condition and results of operations.

Changes in regulations and the regulatory environment in the U.S. and other countries, such as those resulting from the regulation and impact of global warming and CO_2 abatement, may affect our businesses and their results in adverse ways by, among other things, substantially increasing manufacturing costs, limiting availability of scarce resources, especially energy, or requiring limitations on production and sale of our products or those of our customers.

Current or future litigation or regulatory investigations may harm our financial condition or results of operations

As described in Legal Proceedings in this Form 10-K, we are engaged in litigation and regulatory matters. Litigation and regulatory proceedings may be uncertain, and adverse rulings could occur, resulting in significant liabilities,

penalties or damages. Such current or future substantial legal liabilities or regulatory actions could have a material adverse effect on our business, financial condition, cash flows and reputation.

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

Due to the international scope of our operations, we are subject to a complex system of import- and export-related laws and regulations, including U.S. regulations issued by Customs and Border Protection, the Bureau of Industry and Security, the Office of Anti-boycott Compliance, the Directorate of Defense Trade Controls and the Office of Foreign Assets Control, as well as the counterparts of these agencies in other countries. Any alleged or actual violation by an employee or the Company may subject us to government scrutiny, investigation and civil and criminal penalties, and may limit our ability to import or export our products or to provide services outside the United States. We cannot predict the nature, scope or effect of future regulatory requirements to which our operations might be subject or the manner in which existing laws might be administered or interpreted.

Table of Contents

In addition, 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 alleged violations. Violations of these laws may result in severe criminal or civil sanctions, could disrupt our business, and result in an adverse effect on our reputation, business and results of operations or financial condition.

Moreover, several of our related partners are domiciled in areas of the world with laws, rules and business practices that differ from those in the United States, and we face the reputational and legal risk that our related partners may violate applicable laws, rules and business practices.

International trade policies may negatively impact our ability to sell and manufacture our products outside of the U.S.

Government policies on international trade and investment such as import quotas, tariffs, and capital controls, whether adopted by individual governments or addressed by regional trade blocs, can affect the demand for our products and services, impact the competitive position of our products or prevent us (including our equity affiliates/joint ventures) from being able to sell and/or manufacture products in certain countries. The implementation of more restrictive trade policies, such as higher tariffs or new barriers to entry, in countries in which we sell large quantities of products and services could negatively impact our business, results of operations and financial condition. For example, a government's adoption of "buy national" policies or retaliation by another government against such policies could have a negative impact on our results of operations. These policies also affect our equity companies.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We operate 98 manufacturing plants and processing facilities in 17 countries, of which approximately 30% are located in the U.S. We own 71% of our executive and corporate buildings, which are mainly located in and around Corning, New York. We also own approximately 92% of our research and development facilities and the majority of our manufacturing facilities. We own approximately 66% of our sales and administrative facilities. The remaining facilities are leased.

For the years ended 2016, 2015 and 2014, we invested a total of $3.5 billion, primarily in facilities outside of the U.S. in our Display Technologies segment. Of the $1.1 billion spent in 2016, over $714 million were for facilities outside the U.S.

Manufacturing, sales and administrative, and research and development facilities have an aggregate floor space of approximately 38.8 million square feet. Distribution of this total area follows:

(million square feet)	Total	Domestic	Foreign
Manufacturing	31.6	7.3	24.3
Sales and administrative	2.6	1.9	0.7
Research and development	2.2	1.9	0.3
Warehouse	2.4	1.7	0.7
Total	38.8	12.8	26.0

Total assets and capital expenditures by operating segment are included in Note 20 (Reportable Segments) to the Consolidated Financial Statements. Information concerning lease commitments is included in Note 14 (Commitments, Contingencies and Guarantees) to the Consolidated Financial Statements.

Table of Contents

Item 3. Legal Proceedings

Non-PCC Asbestos Litigation. Corning is a defendant in cases alleging injuries from asbestos which had been stayed pending the confirmation of the PCC Plan. The stay was lifted on August 25, 2016. For additional information and updates to estimated liabilities as of December 31, 2016, see Note 7 (Investments) to the Consolidated Financial Statements.

Environmental Litigation. Corning has been named by the Environmental Protection Agency (the Agency) under the Superfund Act, or by state governments under similar state laws, as a potentially responsible party for 17 active hazardous waste sites. Under the Superfund Act, all parties who may have contributed any waste to a hazardous waste site, identified by the Agency, are jointly and severally liable for the cost of cleanup unless the Agency agrees otherwise. It is Corning's policy to accrue for its estimated liability related to Superfund sites and other environmental liabilities related to property owned by Corning based on expert analysis and continual monitoring by both internal and external consultants. At December 31, 2016 and December 31, 2015, Corning had accrued approximately $43 million (undiscounted) and $37 million (undiscounted), respectively, for the estimated liability for environmental cleanup and related litigation. Based upon the information developed to date, management believes that the accrued reserve is a reasonable estimate of the Company's liability and that the risk of an additional loss in an amount materially higher than that accrued is remote.

Item 4. Mine Safety Disclosure

None.

Table of Contents

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

(a) Corning Incorporated common stock is listed on the New York Stock Exchange. In addition, it is traded on the Boston, Midwest, Pacific and Philadelphia stock exchanges. Common stock options are traded on the Chicago Board Options Exchange. The ticker symbol for Corning Incorporated is "GLW."

The following table sets forth the high and low sales price of Corning's common stock as reported on the New York Stock Exchange Composite Tape.

	First quarter	Second quarter	Third quarter	Fourth quarter
2016				
Price range				
High	$21.07	$21.30	$23.81	$25.35
Low	$16.13	$18.21	$19.78	$22.23
2015				
Price range				
High	$25.16	$22.98	$20.02	$19.29
Low	$21.89	$19.57	$15.24	$16.36

As of December 31, 2016, there were approximately 15,892 registered holders of common stock and approximately 456,079 beneficial shareholders.

On February 3, 2016, Corning's Board of Directors declared a 12.5% increase in the Company's quarterly common stock dividend, which increased the quarterly dividend from $0.12 to $0.135 per share of common stock, beginning with the dividend paid in the first quarter of 2016.

On February 1, 2017, Corning's Board of Directors declared a 14.8% increase in the Company's quarterly common stock dividend, which increased the quarterly dividend from $0.135 to $0.155 per share of common stock, beginning with the dividend to be paid in the first quarter of 2017.

Performance Graph

The following graph illustrates the cumulative total shareholder return over the last five years of Corning's common stock, the S&P 500 and the S&P Communications Equipment Companies. The graph includes the capital weighted performance results of those companies in the communications equipment company classification that are also included in the S&P 500.

Table of Contents

(b) Not applicable.

(c) The following table provides information about our purchases of our common stock during the fiscal fourth quarter of 2016:

Issuer Purchases of Equity Securities

Period	Number of shares purchased (2)	Average price paid per share	Number of shares purchased as part of publicly announced plans or programs (1)	Approximate dollar value of shares that may yet be purchased under the plans or programs (1)
October 1-31, 2016				
Open market and shares surrendered for tax withholdings	4,888,855	$23.49	4,875,834	
November 1-30, 2016				
Open market and shares surrendered for tax withholdings	4,892,049	$23.48	4,876,439	
ASR (Tranche I) (3)	3,306,805	(3)	3,306,805	
December 1-31, 2016				
Open market and shares surrendered for tax withholdings	4,732,989	$24.42	4,689,256	
ASR (Tranche II) (3)	8,963,288	(3)	8,963,288	
Total at December 31, 2016	26,783,986		26,711,622	$4,026,996,347

(1) On October 26, 2015, Corning's Board of Directors authorized the repurchase of up to $4 billion of common stock. This authorization was fully utilized in the first quarter of 2017. On December 7, 2016, Corning's Board of Directors authorized a share repurchase program with no expiration for the repurchase of up to $4 billion of common stock (the "2016 Repurchase Program").

(2) This column reflects the following transactions during the fourth quarter of 2016: (i) the deemed surrender to us of 16,996 shares of common stock to satisfy tax withholding obligations in connection with the vesting of employee restricted stock units; (ii) the surrender to us of 55,368 shares of common stock to satisfy tax withholding obligations in connection with the vesting of restricted stock issued to employees; and (iii) the purchase of 26,711,622 shares of common stock (14,441,529 shares in open market repurchases and 12,270,093 shares as part of the Accelerated Share Repurchase ("ASR") agreement entered into in the third quarter of 2016) under the 2015 Repurchase Program.

(3) In the third quarter of 2016, the Company paid $2 billion under an ASR agreement with Morgan Stanley and Co. LLC and received an initial delivery of approximately 74.4 million shares. In the fourth quarter of 2016, the purchase period for this ASR ended and an additional 12.3 million shares were delivered in two tranches to Corning. In total, 86.7 million shares were delivered under the 2016 ASR at an average repurchase price of $23.07. See Note 17 (Shareholders' Equity) to the Consolidated Financial Statements for additional detail.

Table of Contents

Item 6. Selected Financial Data (Unaudited)

(In millions, except per share amounts and number of employees)

	Years ended December 31,				
	2016	2015	2014	2013	2012
Results of operations					
Net sales	$9,390	$9,111	$9,715	$7,819	$8,012
Research, development and engineering expenses	$742	$769	$815	$710	$769
Equity in earnings of affiliated companies	$284	$299	$266	$547	$810
Net income attributable to Corning Incorporated (1)	$3,695	$1,339	$2,472	$1,961	$1,636
Earnings per common share attributable to Corning Incorporated:					
Basic	$3.53	$1.02	$1.82	$1.35	$1.10
Diluted	$3.23	$1.00	$1.73	$1.34	$1.09
Cash dividends declared per common share	$0.54	$0.36	$0.52	$0.39	$0.32
Shares used in computing per share amounts:					
Basic earnings per common share	1,020	1,219	1,305	1,452	1,494
Diluted earnings per common share	1,144	1,343	1,427	1,462	1,506
Financial position					
Working capital	$6,297	$5,455	$7,914	$7,145	$7,739
Total assets	$27,899	$28,527	$30,041	$28,455	$29,354
Long-term debt	$3,646	$3,890	$3,205	$3,249	$3,361
Total Corning Incorporated shareholders' equity	$17,893	$18,788	$21,579	$21,162	$21,486
Selected data					
Capital expenditures	$1,130	$1,250	$1,076	$1,019	$1,801
Depreciation and amortization	$1,195	$1,184	$1,200	$1,002	$997
Number of employees	40,700	35,700	34,600	30,400	28,700

(1) Year ended December 31, 2016 includes a $2.7 billion non-taxable gain on the strategic realignment of our ownership interest in Dow Corning.

Reference should be made to the Notes to the Consolidated Financial Statements and Management's Discussion and Analysis of Financial Condition and Results of Operations.

Table of Contents
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Organization of Information

Management's Discussion and Analysis provides a historical and prospective narrative on the Company's financial condition and results of operations. This discussion includes the following sections:

·Overview
·Results of Operations
·Core Performance Measures
·Reportable Segments
·Liquidity and Capital Resources
·Environment
·Critical Accounting Estimates
·New Accounting Standards
·Forward-Looking Statements

OVERVIEW

Strategy and Capital Allocation Framework

In October 2015, Corning announced a new strategy and capital allocation framework ("the Framework") that reflects the Company's financial and operational strengths, as well as its ongoing commitment to increasing shareholder value. The Framework outlines our leadership priorities, and articulates the opportunities we see across our businesses. We designed the Framework to create significant value for shareholders by focusing our portfolio and leveraging our financial strength. Under our Framework we target generating $26 billion to $30 billion of cash through 2019, returning more than $12.5 billion to shareholders and investing $10 billion to sustain our leadership positions and deliver growth.

Our probability of success increases as we invest in our world-class capabilities. Over the next three years, Corning will concentrate approximately 80% of its research, development and engineering investment and capital spending on a cohesive set of three core technologies, four manufacturing and engineering platforms, and five market-access platforms. This strategy will allow us to quickly apply our talents and repurpose our assets as needed.

Performance against the Framework

Since introducing the Framework, we have distributed approximately $6 billion to shareholders through share repurchases and dividends. Our Board also approved a new $4 billion share repurchase authorization in December 2016, and annual dividend increases of 12.5% in 2016 and 14.8% in February 2017 as part of our ongoing commitment to return cash to our investors.

Within our portfolio, we realigned our interest in Dow Corning, which created significant value for shareholders, including unlocking $4.8 billion in cash. We strengthened our position in Optical Communications with two acquisitions to expand our access to various segments of the telecommunications market. We also entered into a joint venture with Saint-Gobain Sekurit to develop automotive glazing solutions.

We also utilized our financial strength in 2016 to continue our focus on innovation, resulting in the launch of new products and traction with customers on key growth initiatives, including:

.

Gorilla® Glass 5, which offers superior drop performance versus its predecessor and competitive technologies; expanding our cover-glass portfolio with Vibrant® Gorilla® Glass, which enables high-resolution designs for smartphones, tablets, and notebooks; and Gorilla® Glass SR+ for wearable devices.

- Leveraging our competitive advantages and market-leading products to continue to win business in the optical market, with customer commitments and demand that support the capacity expansions now underway.
- Winning business in the automotive sector for both substrates and our new gas particulate filters. We anticipate that our gas particulate filters will increase our sales opportunity by a factor of 3-to-4 per vehicle.
- Expanding the opportunities for Corning Gorilla Glass in the automotive market.
- Technical and commercial progress on Corning Iris™ glass.

Table of Contents

2016 Results

Our sales grew in total in 2016 driven by year-over-year growth in most of our operating segments. The first quarter was our weakest, driven by a combination of slow demand in some markets and production issues related to the implementation of new manufacturing software, which constrained our ability to manufacture product. Momentum built steadily throughout the year and our performance in the second half of 2016 was significantly improved from the first half.

Net sales in the year ended December 31, 2016 were $9,390 million, an increase of $279 million, or 3%, when compared to the year ended December 31, 2015. The increase was primarily driven by the Display Technologies segment and the Corning Pharmaceutical Technologies business, up $152 million and $84 million, respectively. The Optical Communications, Specialty Materials and Life Sciences segments also increased, up $25 million, $17 million and $18 million, respectively.

For the year ended December 31, 2016, we generated net income of $3.7 billion, or $3.23 per share, compared to net income of $1.3 billion, or $1.00 per share, for 2015. When compared to last year, the $2.4 billion increase in net income was due to the following items (amounts presented after tax):

- A $2.7 billion non-taxable gain and $105 million positive tax adjustment on the strategic realignment of our ownership interest in Dow Corning completed on May 31, 2016;
- The positive change in the amounts recorded for tax law changes, valuation allowance adjustments and other discrete tax items of $104 million; and
- A decrease of $61 million in the defined benefit pension plans mark-to-market loss, driven by higher returns on pension assets.

Partially offsetting these events were the following items:

- Lower net income in the Display Technologies, Specialty Materials and Life Sciences segments. The largest decrease was in the Display Technologies segment, down $160 million, or 15%, primarily driven by LCD glass price declines which were slightly higher than 10% and a decrease of $289 million in net realized gains from our yen and won-denominated currency hedge contracts;
- The resolution of an investigation by the U.S. Department of Justice and related costs in the total amount of $86 million;
- An increase of $71 million in acquisition and transaction related costs, driven primarily by expenses associated with the strategic realignment of our ownership interest in Dow Corning; and
- The increase in unrealized losses from our foreign currency translation hedges in the amount of $47 million.

The translation impact of fluctuations in foreign currency exchange rates positively affected Corning's consolidated net income in the year ended December 31, 2016 in the amount of $229 million when compared to 2015, largely due to the strengthening of the Japanese yen versus the U.S. dollar. This impact was more than offset by the decrease of $283 million in the realized gain from our foreign currency translation hedges.

2017 Corporate Outlook

In 2017, Corning will continue to advance the objectives of its Strategy and Capital Allocation Framework, which sets its leadership priorities and articulates opportunities across its businesses. In the Display Technologies segment, we expect the rate of growth in both retail market and glass demand to be in the mid-single digit percentage, and an overall favorable LCD glass price environment, with price declines more moderate than in 2016. In the Optical Communications segment, we anticipate sales to increase by a low-teens percentage over 2016. In the Environmental

Technologies segment, we expect sales to be consistent to up slightly from 2016, driven by continued sales growth in the auto market, offset somewhat by lower heavy-duty volume. We expect growth in the Specialty Materials segment, the amount of which will depend on the timing and extent of customers deploying Gorilla Glass 5 and other Corning innovations. In the Life Sciences segment, we expect low-single digit sales growth, ahead of forecasted market growth rates.

Table of Contents

RESULTS OF OPERATIONS

Selected highlights from our operations follow (in millions):

	2016	2015	2014	% change 16 vs. 15	% change 15 vs. 14
Net sales	$9,390	$9,111	$9,715	3	(6)
Gross margin	$3,746	$3,653	$4,052	3	(10)
(gross margin %)	40%	40%	42%		
Selling, general and administrative expenses	$1,472	$1,508	$1,202	(2)	25
(as a % of net sales)	16%	17%	12%		
Research, development and engineering expenses	$742	$769	$815	(4)	(6)
(as a % of net sales)	8%	8%	8%		
Equity in earnings of affiliated companies	$284	$299	$266	(5)	12
(as a % of net sales)	3%	3%	3%		
Translated earnings contract (loss) gain, net	$(448)	$80	$1,369	(660)	(94)
(as a % of net sales)	(5)%	1%	14%		
Gain on realignment of equity investment	$2,676			*	*
(as a % of net sales)	28%				
Income before income taxes	$3,692	$1,486	$3,568	148	(58)
(as a % of net sales)	39%	16%	37%		
Benefit (provision) for income taxes	$3	$(147)	$(1,096)	102	(87)
(as a % of net sales)	0%	(2)%	(11)%		
Net income attributable to Corning Incorporated	$3,695	$1,339	$2,472	176	(46)
(as a % of net sales)	39%	15%	25%		

*Percent change not meaningful.

Net Sales

The following table presents net sales by reportable segment (in millions):

	Years ended December 31,			% Change	% Change
	2016	2015	2014	16 vs. 15	15 vs. 14
Display Technologies	$3,238	$3,086	$3,851	5%	(20)%
Optical Communications	3,005	2,980	2,652	1%	12%
Environmental Technologies	1,032	1,053	1,092	(2)%	(4)%
Specialty Materials	1,124	1,107	1,205	2%	(8)%
Life Sciences	839	821	862	2%	(5)%
All Other	152	64	53	138%	21%
Total net sales	$9,390	$9,111	$9,715	3%	(6)%

23

Table of Contents

For the year ended December 31, 2016, net sales increased by $279 million, or 3%, when compared to the same period in 2015. The following items drove the increase:

- An increase of $152 million in the Display Technologies segment, driven by the positive impact from the strengthening of the Japanese yen in the amount of $370 million and a mid-single digit percentage volume increase, offset somewhat by LCD glass price declines slightly higher than 10%;
- An increase of $25 million in the Optical Communications segment, driven primarily by an increase of $76 million in sales of carrier products and the impact of a small acquisition completed in the second quarter of 2016, partially offset by production issues related to the implementation of new manufacturing software, which constrained our ability to manufacture product in the first half of 2016;
- A decrease of $21 million in the Environmental Technologies segment driven by a decline of $78 million in sales of diesel products due to the weakening of the North American truck market, offset partially by an increase of $57 million in sales of light-duty substrates, driven by strength in the North American, European and Chinese markets;
- An increase of $17 million in the Specialty Materials segment, driven by an increase in sales of Corning Gorilla Glass 5 and advanced optics products;
- An increase of $18 million in the Life Sciences segment, driven by volume growth in Europe, North America and China; and
- An increase of $88 million in the All Other segment, driven primarily by our glass tubing business acquired in the fourth quarter of 2015.

In the year ended December 31, 2016, the translation impact of fluctuations in foreign currency exchange rates, primarily the Japanese yen, positively affected Corning's consolidated net sales in the amount of $330 million when compared to the same period in 2015.

For the year ended December 31, 2015, net sales decreased by $604 million, or 6%, when compared to the same period in 2014. The following items drove the decrease:

- A decrease of $765 million in the Display Technologies segment, driven by the depreciation of the Japanese yen versus the U.S. dollar, which adversely impacted net sales in the amount of $446 million, and price declines in the low-teens on a percentage basis. Although volume increased in the mid-single digits in percentage terms, growth was muted somewhat by weakness in demand for televisions, computer monitors and mobile computing products;
- An increase of $328 million in the Optical Communications segment, driven by higher sales of enterprise network products, up $170 million, due to an acquisition completed in the first quarter of 2015 and an increase in data center products sales. Sales of carrier network products also increased by $158 million driven by growth in fiber-to-the-home products in North America and the impact of two small acquisitions completed in the first quarter of 2015;
- A decrease in the Environmental Technologies segment of $39 million, driven by the translation impact from movements in foreign currency exchange rates versus the U.S. dollar, primarily the euro, of $57 million and lower sales of light duty diesel products in Europe, partially offset by higher volume for heavy-duty diesel and light-duty substrate products;
- A decrease of $98 million in the Specialty Materials segment, driven primarily by a decline in advanced optics sales; and
- A decrease of $41 million in the Life Sciences segment due to the impact of unfavorable movements in foreign exchange rates of $43 million.

In the year ended December 31, 2015, the translation impact of fluctuations in foreign currency exchange rates, primarily the Japanese yen and the euro, negatively affected Corning's consolidated net sales in the amount of $663 million when compared to the same period in 2014.

In 2016, 2015 and 2014, sales in international markets accounted for 72%, 70% and 77%, respectively, of total net sales.

Cost of Sales

The types of expenses included in the cost of sales line item are: raw materials consumption, including direct and indirect materials; salaries, wages and benefits; depreciation and amortization; production utilities; production-related purchasing; warehousing (including receiving and inspection); repairs and maintenance; inter-location inventory transfer costs; production and warehousing facility property insurance; rent for production facilities; and other production overhead.

Table of Contents

Gross Margin

In the year ended December 31, 2016, gross margin dollars increased $93 million, and gross margin as a percentage of net sales remained consistent at 40% when compared to the same period last year. The increase in gross margin dollars was primarily driven by the positive impact from the strengthening of the Japanese yen in the amount of $266 million, an increase in manufacturing efficiency and cost reductions in our Display Technologies and Optical Communications segments which added approximately $160 million, a more favorable mix of products sold in the Optical Communications segment and an increase in volume in the mid-single digit percentage in the Display Technologies segment. Display Technologies segment price declines slightly above 10% partially offset the increase.

In the year ended December 31, 2015, gross margin dollars and gross margin as a percentage of net sales both declined when compared to the same period in 2014, declining $399 million and 2%, respectively. The negative impact of the depreciation of the Japanese yen versus the U.S. dollar in the amount of $368 million and price declines in the Display Technologies segment in the low teens in percentage terms drove the decrease, but were partially offset by cost reductions and the impact of several small acquisitions in the Optical Communications segment, improvements in manufacturing performance in the Display Technologies and Specialty Materials segments and lower acquisition-related and restructuring costs. Additionally, our Emerging Innovation Group and Corning Pharmaceutical Technologies business added $26 million in gross margin dollars in 2015, reflecting the growing significance of new business development.

Selling, General and Administrative Expenses

In the year ended December 31, 2016, selling, general and administrative expenses decreased by $36 million when compared to the same period in 2015, driven primarily by the following items:

- A decrease of $94 million in the loss on the mark-to-market of our defined benefit pension plans;
- The positive impact of the change in the contingent consideration fair value adjustment of $43 million; and
- The absence of $25 million of post-combination expenses incurred in 2015.

Partially offsetting these events were:

- An increase of $59 million in acquisition-related costs primarily related to the realignment of our equity interest in Dow Corning and an acquisition completed in the second quarter of 2016;
- An increase of $49 million in litigation, regulatory and other legal costs, driven by the resolution of an investigation by the U.S. Department of Justice and an environmental matter in the amount of $98 million, partially offset by the gain of $56 million on the contribution of our equity interests in PCC and PCE as partial settlement of the asbestos litigation; and
- Higher operating expenses in the Optical Communications, Environmental Technologies and Specialty Materials segments.

When compared to the same period in 2015, as a percentage of net sales, selling, general and administrative expenses decreased by 1%.

In the year ended December 31, 2015, selling, general and administrative expenses increased by $312 million when compared to the same period in 2014, driven primarily by the following items:

- An increase of $133 million in our defined benefit pension plans mark-to-market loss;
- The absence of the positive impact of a contingent consideration fair value adjustment of $249 million recorded in 2014; and

· An increase in spending in the Optical Communications segment driven by several acquisitions completed in 2015.

Offsetting these increases somewhat were a decrease in variable compensation, lower spending in the Display Technologies and Specialty Materials segments and a decline in acquisition-related and post-combination expenses, which were higher last year due to additional costs incurred related to the acquisition of the remaining equity interests of Samsung Corning Precision Materials.

When compared to the same period in 2014, as a percentage of net sales, selling, general and administrative expenses in the year ended December 31, 2015 increased driven by lower net sales.

The types of expenses included in the selling, general and administrative expenses line item are: salaries, wages and benefits; travel; professional fees; and depreciation and amortization, utilities, and rent for administrative facilities.
25

Table of Contents

Research, Development and Engineering Expenses

In the year ended December 31, 2016, research, development and engineering expenses declined $27 million when compared to the same period in 2015 driven by the impact of a joint development agreement with a Display Technologies customer, offset partially by project development spending in the Optical Communications, Environmental Technologies and Specialty Materials segments. As a percentage of net sales, research, development and engineering expenses remained consistent with the same period in 2015.

In the year ended December 31, 2015, research, development and engineering expenses decreased by $46 million when compared to the same period in 2014, driven by lower variable compensation and a decrease in the Display Technologies and Specialty Materials segments. As a percentage of net sales, research, development and engineering expenses remained consistent with the same period in 2014.

Restructuring, Impairment, and Other Charges

Corning recorded restructuring, impairment, and other charges and credits in 2016 and 2014, which affect the comparability of our results for the periods presented. Additional information on restructuring and asset impairment is found in Note 2 (Restructuring, Impairment and Other Charges) to the Consolidated Financial Statements. A description of those charges and credits follows:

2016 Activity

For the year ended December 31, 2016, we recorded charges of $77 million for employee related costs, asset disposals, and exit costs associated with restructuring activities with total cash expenditures of approximately $12 million.

2015 Activity

For the year ended December 31, 2015, we did not record significant restructuring, impairment and other charges or reversals. Cash expenditures for restructuring activities were $40 million.

2014 Activity

For the year ended December 31, 2014, we recorded charges of $71 million for workforce reductions, asset disposals and write-offs, and exit costs for restructuring activities with total cash expenditures of approximately $39 million.

Equity in Earnings of Affiliated Companies

The following provides a summary of equity earnings of affiliated companies (in millions):

	Years ended December 31,		
	2016	2015	2014
Dow Corning Corporation (1)	$ 82	$ 281	$ 252
Hemlock Semiconductor Group (2)	212		
All other	(10)	18	14
Total equity earnings	$ 284	$ 299	$ 266

(1) Results include equity earnings for Dow Corning, which includes the silicones business and Hemlock Semiconductor business, through May 31, 2016, the date of the realignment of our ownership interest in Dow

Corning.

(2) Results include equity earnings for Hemlock Semiconductor Group beginning on June 1, 2016.

On May 31, 2016, Corning completed the strategic realignment of its equity investment in Dow Corning Corporation ("Dow Corning") pursuant to the Transaction Agreement announced on December 10, 2015. Under the terms of the Transaction Agreement, Corning exchanged with Dow Corning its 50% stock interest in Dow Corning for 100% of the stock of a newly formed entity, which holds an equity interest in Hemlock Semiconductor Group and approximately $4.8 billion in cash.

Table of Contents

The equity in earnings line on our income statement for the year ended December 31, 2016 reflects both the equity earnings from the silicones and polysilicones (Hemlock Semiconductor) businesses of Dow Corning from January 1, 2016 through May 31, 2016, the closing date of the Transaction Agreement, and seven months of equity earnings from Hemlock Semiconductor Group. Prior to the realignment of Dow Corning, equity earnings from the Hemlock Semiconductor business were reported on the equity in earnings line in Corning's income statement, net of Dow Corning's 35% U.S. tax. Additionally, Corning reported its tax on equity earnings from Dow Corning on the tax provision line on its income statement at a U.S. tax provision rate of 7%. As part of the realignment, Hemlock Semiconductor Group was converted to a partnership. Each of the partners is responsible for the taxes on their portion of equity earnings. Therefore, post-realignment, Hemlock Semiconductor Group's equity earnings is reported before tax on the equity in earnings line and Corning's tax is reported on the tax provision line.

Refer to Note 7 (Investments) to the consolidated financial statements for additional information.

Translated earnings contracts

Included in the line item Translated earnings contract (loss) gain, net, is the impact of foreign currency hedges which hedge our translation exposure arising from movements in the Japanese yen, South Korean won, euro, New Taiwan dollar and Chinese yuan against the U.S. dollar and its impact on our net earnings. The following table provides detailed information on the impact of our translated earnings contract losses and gains:

(in millions)	Year ended December 31, 2016		Year ended December 31, 2015		Change 2016 vs. 2015	
	Income before income taxes	Net income	Income before income taxes	Net income	Income before income taxes	Net income
Hedges related to translated earnings:						
Realized gain, net	$ 201	$ 127	$ 653	$ 410	$(452)	$(283)
Unrealized (loss) gain	(649)	(409)	(573)	(362)	(76)	(47)
Total translated earnings contract (loss) gain	$ (448)	$ (282)	$ 80	$ 48	$(528)	$(330)

(in millions)	Year ended December 31, 2015		Year ended December 31, 2014		Change 2015 vs. 2014	
	Income before income taxes	Net income	Income before income taxes	Net income	Income before income taxes	Net income
Hedges related to translated earnings:						
Realized gain, net	$ 653	$ 410	$ 274	$ 224	$379	$186
Unrealized (loss) gain	(573)	(362)	1,095	692	(1,668)	(1,054)
Total translated earnings contract gain (loss)	$ 80	$ 48	$ 1,369	$ 916	$(1,289)	$(868)

The gross notional value outstanding for our translated earnings contracts at December 31, 2016, 2015 and 2014 were as follows (in billions):

	Years ended December 31,		
	2016	2015	2014
Japanese yen-denominated hedges	$ 14.9	$ 8.3	$ 9.8
South Korean won-denominated hedges	1.2	3.3	2.3
Euro-denominated hedges	0.3	0.3	
Chinese yuan-denominated hedges	0.3		

Total gross notional value outstanding	$ 16.7	$ 11.9	$ 12.1

Table of Contents

Income Before Income Taxes

The translation impact of fluctuations in foreign currency exchange rates positively affected Corning's Income before income taxes in the year ended December 31, 2016 in the amount of $304 million when compared to 2015. This impact was partially offset by the decrease in the realized gain from our foreign currency translation hedges related to translated earnings of $452 million.

Benefit (Provision) for Income Taxes

Our benefit (provision) for income taxes and the related effective income tax rates were as follows (dollars in millions):

	Years ended December 31,		
	2016	2015	2014
Benefit (provision) for income taxes	$3	$(147)	$(1,096)
Effective tax rate	(0.1)%	9.9%	30.7%

The effective income tax rate for 2016 differed from the U.S. statutory rate of 35% primarily due to the following items:

- Rate differences on income (loss) of consolidated foreign companies, including the benefit of excess foreign tax credits resulting from the inclusion of foreign earnings in U.S. income; and
- The tax-free nature of the realignment of our equity interest in Dow Corning during the period, as well as the release of the deferred tax liability related to Corning's tax on Dow Corning's undistributed earnings as of the date of the transaction.

The effective income tax rate for 2015 differed from the U.S. statutory rate of 35% primarily due to the following items:

- Rate differences on income (loss) of consolidated foreign companies, including the benefit of excess foreign tax credits resulting from the inclusion of foreign earnings in U.S. income;
- The impact of equity in earnings of nonconsolidated affiliates reported in the financials, net of tax;
- $63 million tax expense for unrecognized tax benefit primarily for positions taken related to net transfer pricing adjustments (offset with benefit for competent authority relief); and
- $100 million tax benefit primarily related to change in judgment on the realizability of deferred tax assets which is partially offset with tax expense from deferred tax allowance increases.

Corning continues to indefinitely reinvest substantially all of its foreign earnings, with the exception of an immaterial amount of current earnings that have very low or no tax cost associated with their repatriation. Our current analysis indicates that we have sufficient U.S. liquidity, including borrowing capacity, to fund foreseeable U.S. cash needs without requiring the repatriation of foreign cash. One time or unusual items may impact our ability or intent to keep our foreign earnings and cash indefinitely reinvested. As of December 31, 2016, taxes have not been provided on approximately $12.6 billion of accumulated foreign unremitted earnings that are expected to remain invested indefinitely. While it remains impracticable to calculate the tax cost of repatriating our total unremitted foreign earnings, such cost could be material to the results of operations of Corning in a particular period.

We do not expect a material change to the amount of unrecognized tax benefits in the next 12 months.

Refer to Note 6 (Income Taxes) to the Consolidated Financial Statements for further details regarding income tax matters.

28

Table of Contents

Net Income Attributable to Corning Incorporated

As a result of the items discussed above, net income and per share data was as follows (in millions, except per share amounts):

	Years ended December 31,		
	2016	2015	2014
Net income attributable to Corning Incorporated	$ 3,695	$ 1,339	$ 2,472
Net income attributable to Corning Incorporated used in basic earnings per common share calculation (1)	$ 3,597	$ 1,241	$ 2,378
Net income attributable to Corning Incorporated used in diluted earnings per common share calculation (1)	$ 3,695	$ 1,339	$ 2,472
Basic earnings per common share	$ 3.53	$ 1.02	$ 1.82
Diluted earnings per common share	$ 3.23	$ 1.00	$ 1.73
Weighted-average common shares outstanding - basic	1,020	1,219	1,305
Weighted-average common shares outstanding - diluted	1,144	1,343	1,427

(1) Refer to Note 18 (Earnings per Common Share) to the Consolidated Financial Statements for additional information.

Comprehensive Income

	Years ended December 31,		
(In millions)	2016	2015	2014
Net income attributable to Corning Incorporated	$ 3,695	$ 1,339	$ 2,472
Foreign currency translation adjustments and other	(104)	(590)	(1,073)