APTARGROUP INC
Form 10-K
February 27, 2017
Table of Contents

United States Securities and Exchange Commission

Washington, D.C. 20549

FORM 10 K

[X] 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 11846

AptarGroup, Inc.

DELAWARE 36 3853103

475 WEST TERRA COTTA AVENUE, SUITE E, CRYSTAL LAKE, ILLINOIS 60014

815 477 0424

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
Common Stock $.01 par value	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 Act.

Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15 (d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes No

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

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b 2 of the Act).

Yes No

The aggregate market value of the common stock held by non affiliates as of June 30, 2016 was $5,397,779,755.

The number of shares outstanding of common stock, as of February 20, 2017, was 62,329,609 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the definitive Proxy Statement to be delivered to stockholders in connection with the Annual Meeting of Stockholders to be held May 3, 2017 are incorporated by reference into Part III of this report.

Table of Contents

AptarGroup, Inc.

FORM 10 K

For the Year Ended December 31, 2016

INDEX

		Page
Part I		
Item 1.	Business	1
Item 1A.	Risk Factors	8
Item 1B.	Unresolved Staff Comments	10
Item 2.	Properties	11
Item 3.	Legal Proceedings	11
Item 4.	Mine Safety Disclosures	11
Part II		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	12
Item 6.	Selected Financial Data	14
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	15
Item 7A.	Quantitative and Qualitative Disclosure about Market Risk	32
Item 8.	Financial Statements and Supplementary Data	33
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	67
Item 9A.	Controls and Procedures	67
Item 9B.	Other Information	67
Part III		
Item 10.	Directors, Executive Officers and Corporate Governance	67
Item 11.	Executive Compensation	68
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	68
Item 13.	Certain Relationships and Related Transactions, and Director Independence	68
Item 14.	Principal Accountant Fees and Services	68
Part IV		
Item 15.	Exhibits and Financial Statement Schedules	68
Item 16.	Form 10-K Summary	68
	Signatures	69

Table of Contents

PART I

ITEM 1. BUSINESS

BUSINESS OF APTARGROUP

We are a leading global provider of a broad range of innovative packaging, dispensing and sealing solutions, primarily for the beauty, personal care, home care, prescription drug, consumer health care, injectables, food and beverage markets. Our creative packaging solutions enhance the convenience, safety and security of consumers around the globe and allow our customers to differentiate their products in the market.

Our business was started in the late 1940's, manufacturing and selling aerosol valves in the United States, and has grown primarily through the acquisition of relatively small companies and internal expansion. We were incorporated in Delaware in 1992. In this report, we may refer to AptarGroup, Inc. and its subsidiaries as "AptarGroup", "Aptar" or the "Company".

We have manufacturing facilities located throughout the world including North America, Europe, Asia and South America. We have approximately 5,000 customers with no single customer or group of affiliated customers accounting for greater than 6% of our 2016 net sales.

Consumers' preference for convenience and product differentiation through packaging design are important to our customers and they have converted many of their packages from non-dispensing formats to dispensing systems that offer enhanced shelf appeal, convenience, cleanliness and accuracy of dosage.

While we offer a wide variety of dispensing and sealing solutions, our primary products are dispensing pumps, closures, aerosol valves and elastomeric primary packaging components.

Dispensing pumps are finger actuated dispensing systems that dispense a spray or lotion from non pressurized containers. The style of pump used depends largely on the nature of the product being dispensed, from small, fine mist pumps used with perfume and pharmaceutical products to lotion pumps for more viscous formulas.

Closures are primarily dispensing closures but to a lesser degree can include non dispensing closures. Dispensing closures are plastic caps which allow a product to be dispensed without removing the cap.

Aerosol valves dispense product from pressurized containers. The majority of the aerosol valves that we sell are continuous spray valves, with the balance being metered dose valves.

We also manufacture and sell elastomeric primary packaging components. These components are used in the injectables market. Products include stoppers for infusion, antibiotic, lyophilization and diagnostic vials. Our elastomeric components also include pre filled syringe components, such as plungers, needle shields, tip caps and cartridges, as well as dropper bulbs and syringe plungers.

On February 29, 2016, the Company completed its acquisition of MegaPlast GmbH and its subsidiaries along with Megaplast France S.a.r.l. and Mega Pumps L.P. ("Mega Airless"). Mega Airless is a leading provider of innovative all-plastic airless dispensing systems for the beauty, personal care and pharmaceutical markets.

AVAILABLE INFORMATION

Our periodic and current reports, and any amendments to those reports, are available, free of charge, through a link on the Investors page of our website (www.aptar.com), as soon as reasonably practicable after the material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). These filing are also available to the public over the Internet at the SEC's website (http://www.sec.gov). You may also read and copy any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549. Please call the SEC at 1-800-SEC-0330 for further information on the reference room.

Also posted on our website are the charters for our Audit, Compensation, Governance and Executive Committees, our Governance Principles, our Code of Business Conduct & Ethics, our Director Independence Standards and our Conflict Minerals Statement. Within the time period required by the SEC and the New York Stock Exchange ("NYSE"), we will post on our website any amendment or waiver to the Code of Business Conduct & Ethics applicable to any executive officer or director. The information provided on our website is not part of this report and is therefore not incorporated herein by reference.

Table of Contents

OUR STRATEGY

We seek to enhance our position as a leading global provider of innovative packaging dispensing and sealing solutions and deliver increased value to our customers and stockholders through strategic focus and execution in the following areas:

(i) Market Focused: We are committed to develop market-focused packaging solutions and convert less convenient or non-dispensing applications to convenient dispensing systems or replace current dispensing applications with more value-added dispensing products. We see opportunities to convert to more convenient and value-added solutions across all of our segments and markets.
(ii) Diversification: We aim to continue to expand, through internal growth and through acquisition, our geographic footprint and portfolio of solutions in order to serve global consumer and pharmaceutical companies across a number of end uses. Our ability to diversify our business globally and across a number of end uses is a key strategic priority which improves our competitive position and reduces an over reliance on any one particular region or market.
(iii) Niche Provider: Our customers look to us to develop products that provide them market differentiation related to convenience of use, product security and regulatory compliance. We invest in consumer research, product design and manufacturing technologies to be a leader in packaging delivery solutions.
(iv) Innovation: We use our market research and insight into consumer behaviors to develop and license innovative new products. Additionally, we actively adapt and transfer innovative product technologies and concepts across business segments and geographic regions.
(v) Operationally Efficient: We compete with global and local companies. We are focused on executing programs to improve our operational efficiency, including actions around local sourcing, production efficiency and process redesign. We understand the importance of continuous improvement to protect our ability to compete in the market.
(vi) Talented Workforce: Execution of our strategy requires a talented and highly motivated team. We have a focused talent acquisition and development strategy to ensure our team has the right skills to execute our strategy.

Facilitating the execution of our strategy are our core values, which dictate how we interact internally and with our customers, suppliers and all stakeholders.

DESCRIPTION OF APTARGROUP'S REPORTING SEGMENTS

INFORMATION ABOUT SEGMENTS

AptarGroup's organizational structure consists of three market focused business segments which are Beauty + Home, Pharma and Food + Beverage. This is a strategic structure which allows us to be more closely aligned with our customers and the markets in which they operate. We primarily sell our products through our own sales force to the largest beauty, personal care, pharmaceutical, home care, food and beverage marketers in the world. To a limited extent, we use independent representatives and distributors to reach smaller customers and export markets.

Operations that sell dispensing systems and sealing solutions primarily to the beauty, personal care and home care markets form the Beauty + Home segment. Operations that sell dispensing systems and sealing solutions to the prescription drug, consumer health care and injectables markets form the Pharma segment. Operations that sell dispensing systems and sealing solutions to the food and beverage markets form the Food + Beverage segment. Each of these three business segments is described more fully below. A summary of sales, segment income and total assets based upon this reporting structure for each of the last three years is shown in Note 17 to the Consolidated Financial Statements in Item 8 (which is incorporated by reference herein).

BEAUTY + HOME

The Beauty + Home segment is our largest segment in terms of net sales and total assets representing 54% and 49% of AptarGroup's Net Sales and Total Assets, respectively. The Beauty + Home segment primarily sells pumps, closures, aerosol valves, accessories and sealing solutions to the personal care and home care markets and pumps and decorative components to the beauty market. We believe we are a leading supplier for the majority of the products we sell primarily to the beauty, personal care and home care markets.

Table of Contents

Beauty. Sales to the beauty market accounted for approximately 48% of the segment's total net sales in 2016. The beauty market requires a broad range of spray and lotion pumps, closures and sampling dispensing systems to meet functional as well as aesthetic requirements. A considerable amount of research, time and coordination with our customers is required to qualify a pump for use with their products. Within the market, we expect the use of pumps to continue to increase, particularly in the cosmetics and sampling sectors. In the cosmetic sector, packaging for certain products such as natural and organic cosmetics and anti aging lotions continue to provide us with growth opportunities. We are a leading provider of packaging solutions for prestige and mass market fragrance products. Our cosmetic lotion pumps, airless dispensing systems, lotion sampling devices and decorative capabilities will also provide growth opportunities. We see continued growth opportunities in Latin America and significant opportunities for growth in the sale of our products for cosmetic applications in Asia.

Personal Care. Sales to the personal care market accounted for approximately 44% of the segment's total net sales in 2016 and primarily included sales of fine mist spray pumps, lotion pumps, closures and continuous spray aerosol valves. Personal care spray pump applications include hair care, body care and sun care products. Typical lotion pump applications include skin moisturizers, hand sanitizers and soap. Personal care closures applications include shampoos and conditioners. Personal care continuous spray aerosol valve applications include hair care products, deodorants, shaving creams and sun care products. Our research and development teams continue to design unique accessories that increase the value of our continuous spray aerosol valve offerings.

Home Care. Sales to the home care market accounted for approximately 8% of the segment's total net sales in 2016 and primarily included sales of continuous or metered dose spray aerosol valves, closures and to a lesser degree spray and lotion pumps. Applications for continuous spray valves include disinfectants, spray paints, insecticides and automotive products. Metered dose valves are used for air fresheners. Closure applications include liquid detergents, automotive products and household cleansers. Spray and lotion pump applications primarily include household, insect repellant and industrial cleaners.

PHARMA

The Pharma segment is our second largest segment in terms of net sales and total assets, accounting for 32% of both AptarGroup's Net Sales and Total Assets and is our most profitable segment. We believe we are a leading supplier of pumps and metered dose inhaler valves ("MDI's") to the pharmaceutical market worldwide and we are a supplier of elastomer for injectable primary packaging components worldwide. Characteristics of this market include (i) governmental regulation of our pharmaceutical customers, (ii) contaminant controlled manufacturing environments and (iii) a significant amount of time and research from initially working with pharmaceutical companies at the molecular development stage of a medication through the eventual distribution to the market. We have clean room manufacturing facilities in Argentina, China, France, Germany, India, Switzerland and the United States. We believe that providing an alternative to traditional medication forms such as pills with value added, convenient dispensing systems will continue to offer opportunities for our business. In addition, we believe there are opportunities for growth in the over-the-counter and generic pharmaceutical categories.

Prescription Drug. Sales to the prescription drug market accounted for approximately 55% of the segment's total net sales in 2016. Pumps sold to the prescription drug market deliver medications nasally, orally or topically. Currently the majority of our pumps sold are for nasal allergy treatments. Recently, there is a trend of nasal allergy products moving from prescription only to being sold over-the-counter without a prescription. This trend could provide us with growth opportunities as this movement could allow consumers easier access to these types of treatments. Our nasal pumps and unit dose devices are also used to deliver pain management products. Potential opportunities for providing alternatives to traditional pill and injectable dosage forms of medication include pump dispensing systems for vaccines, cold and flu treatments, central nervous systems applications and hormone replacement therapies.

MDI's are used for dispensing precise amounts of aerosolized medication. This technology allows medication to be broken up into very fine particles, which enables the drug to be delivered typically via the pulmonary system. Currently the majority of our MDI's sold are used for respiratory ailments such as asthma and COPD (chronic obstructive pulmonary disease).

We continue to develop new dispensing systems and accessories in this segment. For example, we provide single dose delivery devices suitable for central nervous system applications. While we expect that these types of new products will come to market in the future, it is difficult to estimate when, as the rigors of pharmaceutical regulations affect the timing of product introductions by our pharmaceutical customers which use our dispensing systems.

Table of Contents

Consumer Health Care. Sales to the consumer health care market accounted for approximately 27% of the segment's total net sales in 2016. Applications for this market are similar to the prescription market; however, these applications are sold over-the-counter without a prescription. Typical consumer health care spray pump applications include nasal decongestants, nasal salines and cough and cold applications. Typical consumer health care valve applications include nasal saline using our bag on valve technology. We have developed a multi dose ophthalmic dispensing device suitable for unpreserved medicinal formulations. This technology is successfully marketed in Europe, North America and Latin America and is under development for other markets both for over-the-counter and prescription applications. Other products sold to this market include airless pump systems for dermal drug delivery applications. We have recently seen a trend to more child resistant and senior friendly packaging solutions and have developed products to meet these market needs.

Injectables. Sales to the injectables market accounted for approximately 18% of the segment's total net sales in 2016. Injectables are elastomeric primary packaging components for injectable drug delivery. Injectable products offered include stoppers for vials, pre filled syringe components, such as plungers, needle shields, tip caps and components for cartridges. Our recent investment in this business will allow us to market coated stoppers which better preserve the contents of the vial and adds value to our customers and the consumer. Pharmaceutical applications for this market include vaccines, anti thrombotic, small molecules and biologics.

FOOD + BEVERAGE

The Food + Beverage segment is our smallest segment in terms of net sales and total assets representing 14% and 10% of AptarGroup's Net Sales and Total Assets, respectively, but has been experiencing strong product growth over recent years. We primarily sell dispensing closures and, to a lesser degree, non dispensing closures, elastomeric flow control components, spray pumps and aerosol valves.

Sales of dispensing closures have grown as consumers worldwide have demonstrated a preference for a package utilizing the convenience of a dispensing closure. At the same time, consumer marketers are trying to differentiate their products by incorporating performance enhancing features such as bonded aluminum liners to plastic, flow control and no drip dispensing, inverted packaging and directional flow to make packages simpler to use, cleaner and more appealing to consumers. We also have a number of product solutions that address the increased use of flexible packaging formats.

Food. Sales to the food market accounted for approximately 61% of the segment's total net sales in 2016 and primarily include sales of dispensing closures and elastomeric flow control components. To a lesser degree we also sell non dispensing closures, continuous spray aerosol valves and spray pumps to this market. Applications for dispensing closures include sauces, condiments, infant nutrition and food products. Applications for non dispensing closures include granular and powder food products. Applications for continuous spray aerosol valves include cooking sprays. Spray pump applications primarily include butter or salad dressing sprays.

Beverage. Sales to the beverage market accounted for approximately 38% of the segment's total net sales in 2016 and primarily include sales of dispensing closures and elastomeric flow control components. Sales of dispensing closures to the beverage market have increased significantly over the last several years as we continue to see an increase of interest from marketers using dispensing closures for their products. Examples of beverage products currently utilizing dispensing closures include bottled water, sport and energy drinks, juices and concentrated water flavorings.

GENERAL BUSINESS INFORMATION

RESEARCH AND DEVELOPMENT

Our commitment to innovation, one of our competitive strengths, has resulted in an emphasis on research and development directed toward developing affordable, new, innovative packaging delivery solutions and adapting existing products for new markets or customer requirements. In certain cases, our customers share in the research and development expenses of customer initiated projects. Occasionally, we acquire or license from third parties technologies or products that are in various stages of development. Expenditures for research and development activities, net of certain research and development credits, were $66.2 million, $67.1 million and $76.2 million in 2016, 2015 and 2014, respectively.

PATENTS AND TRADEMARKS

We customarily seek patent and trademark protection for our products and brands. We own and currently have numerous applications pending for patents and trademarks in many regions of the world. In addition, certain of our products are produced under patent licenses granted by third parties. We believe that we possess certain technical capabilities in making our products that make it difficult for a competitor to duplicate. While valuable to our overall product portfolio, sales of any one individually patented product are not considered material to any specific segment or to the Company’s consolidated results.

TECHNOLOGY

We have technical expertise regarding injection molding, robotics, clean-room facilities and high speed assembly. We also have expertise regarding the formulation and finishing of elastomer and silicone components. In addition, we offer a variety of sterilization options for elastomeric components for the pharmaceutical industry. Pumps and aerosol valves require the assembly of several different plastic, metal and rubber components using high speed equipment. When molding dispensing closures, or plastic components to be used in pump or aerosol valve products, we use advanced plastic injection molding technology, including large cavitation plastic injection molds. We are able to mold within tolerances as small as one one thousandth of an inch and we assemble products in a high speed, cost effective manner. We are experts in molding liquid silicone that is used in certain dispensing closures as well as rubber gasket formulation and production primarily for the prescription drug and consumer health care markets.

MANUFACTURING AND SOURCING

The majority of our worldwide production is located outside of the United States. Our philosophy is to produce as much as possible in the region where it will be sold. In order to augment capacity and to maximize internal capacity utilization (particularly for plastic injection molding), we use subcontractors to supply certain plastic, metal and rubber components. Certain suppliers of these components have unique technical abilities that make us dependent on them, particularly for aerosol valve and pump production. The principal raw materials used in our production are plastic resins, rubber and certain metal products. We believe an adequate supply of such raw materials is available from existing and alternative sources. We attempt to offset cost increases through improving productivity and increasing selling prices over time, as allowed by market conditions or contractual commitments. Our pharmaceutical products often use plastic resin and rubber components specifically approved by our customers. Significant delays in receiving these components or discontinuance of an approved raw material would require us to seek alternative sources, which could result in higher costs as well as impact our ability to supply products in the short-term.

BACKLOG

Our sales are primarily made pursuant to standard purchase orders for delivery of products. While most orders placed with us are ready for delivery within 120 days, we continue to experience a trend towards shorter lead times requested by our customers. Some customers place blanket orders, which extend beyond this delivery period. However, deliveries against purchase orders are subject to change, and only a small portion of the order backlog is noncancelable. The dollar amount associated with the noncancelable portion is not material. Therefore, we do not believe that backlog as of any particular date is an accurate indicator of future results.

CUSTOMERS

We have approximately 5,000 customers with no single customer or group of affiliated customers accounting for greater than 6% of 2016 net sales. A consolidation of our customer base has been occurring and this trend is expected to continue. A concentration of customers presents opportunities for increasing sales due to the breadth of our product line, our international presence and our long term relationships with certain customers. However, consolidation of our customers could lead to pricing pressures, concentration of credit risk and fewer opportunities to introduce new products to the market.

INTERNATIONAL BUSINESS

We are geographically diverse with manufacturing and sales operations in Asia, Europe, Latin America (including Mexico) and North America. Europe is our largest region where sales for the years ended December 31, 2016, 2015 and 2014 were approximately 57%, 56% and 58%, respectively. Asia and Latin America when aggregated represented

approximately 16%, 17% and 17% of our consolidated sales for the years ended December 31, 2016, 2015 and 2014, respectively. Export sales from the United States were $165.1 million, $151.2 million and $161.4 million in 2016, 2015 and 2014, respectively. We are a net exporter of goods from the U.S. and Europe and a net importer of goods to the Asian and Latin American regions. For additional financial information about geographic areas, please refer to Note 17 in the Notes to the Consolidated Financial Statements in Item 8 (which is incorporated by reference herein).

FOREIGN CURRENCY

Because of our international presence, movements in exchange rates have a significant impact on the translation of the financial statements of our foreign subsidiaries. Our primary foreign exchange exposure is to the Euro, but we have foreign exchange exposure to the Chinese Yuan, Brazilian Real, Mexican Peso, Swiss Franc and other Asian, European and South American currencies. A strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect on our financial statements. Conversely, a weakening U.S. dollar has an additive effect. We manage our exposures to foreign exchange principally with forward exchange contracts to economically hedge recorded transactions and firm purchase and sales commitments denominated in foreign currencies.

Table of Contents

WORKING CAPITAL PRACTICES

Collection and payment periods tend to be longer for our operations located outside the United States due to local business practices. We have also seen an increasing trend in pressure from certain customers to lengthen their payment terms. As the majority of our products are made to order, we have not needed to keep significant amounts of finished goods inventory to meet customer requirements. However, some of our contracts specify an amount of finished goods safety stock we are required to maintain.

To the extent our financial position allows and there is a clear financial benefit, we from time-to-time benefit from early payment discounts with some suppliers.

EMPLOYEE AND LABOR RELATIONS

AptarGroup has approximately 12,700 full time employees. Of the full time employees, approximately 7,600 are located in Europe, 3,000 are located in Asia and South America and the remaining 2,100 are located in North America. The majority of our European and Latin American employees are covered by collective bargaining arrangements made at either the local or national level in their respective countries and approximately 155 of the North American employees are covered by a collective bargaining agreement. Termination of employees at certain of our international operations could be costly due to local regulations regarding severance benefits. There were no material work stoppages in 2016 and management considers our employee relations to be satisfactory.

COMPETITION

All of the markets in which we operate are highly competitive and we continue to experience price competition in all product lines and markets. Competitors include privately and publicly held entities that range from regional to international companies. We expect the market for our products to remain competitive. We believe our competitive advantages are consistent high levels of innovation, quality and service, geographic diversity and breadth of products. Our manufacturing strength lies in the ability to mold complex plastic components and formulate and finish elastomer and silicone components in a cost effective manner and to assemble products at high speeds. Our business is somewhat capital intensive and it is becoming more important to our customers for Aptar to have global manufacturing capabilities. Both of these serve as barriers to entry for new competitors wanting to enter our business.

While we have experienced some competition in Europe, Latin America and the United States from low cost Asian suppliers, particularly in the low end beauty and personal care market, this has not been significant. Although using low cost Asian supplies may have a cost advantage, some customers prefer local suppliers citing better quality, better customer service and shorter lead times.

ENVIRONMENT

Our manufacturing operations primarily involve plastic injection molding, automated assembly processes, elastomer and silicone formulation and finishing and, to a limited degree, metal anodization and vacuum metallization of plastic components. Historically, the environmental impact of these processes has been minimal, and we believe we meet current environmental standards in all material respects. To date, our manufacturing operations have not been significantly affected by environmental laws and regulations relating to the environment.

Recently there is increased interest and awareness from consumers, and from our customers, in environmentally sustainable products, especially through the sourcing of sustainable materials. We are focused on reducing our environmental impacts through product life cycle assessments, sustainable material trials, operational eco-efficiency initiatives and renewable energy sourcing. We are designing for sustainability by providing products that improve

recyclability and use less material. Future regulations on environmental matters regarding recycling or material inputs could impact our business.

GOVERNMENT REGULATION

Certain of our products are indirectly affected by government regulation. Demand for aerosol and pump packaging is affected by government regulations regarding the release of volatile organic compounds ("VOCs") into the atmosphere. Europe and the United States have regulations that require the reduction in the amount of VOCs that can be released into the atmosphere and the potential exists for this type of regulation to expand worldwide. These regulations required certain of our customers to reformulate certain aerosol and pump products, which may have affected the demand for such products. We own patents and have developed systems to function with alternative propellant and product formulations.

Table of Contents

Future government regulations could include healthcare cost containment policies. For example, reviews by various governments to determine the number of drugs, or prices thereof, that will be paid by their insurance systems could affect future sales to the pharmaceutical industry. Such regulation could adversely affect prices of and demand for our pharmaceutical products. We believe that the focus on the cost effectiveness of the use of medications as compared to surgery and hospitalization provides us with an opportunity to expand sales to the pharmaceutical market.

EXECUTIVE OFFICERS

Our executive officers as of February 27, 2017 are as follows:

Name	Age	Position with the Company
Stephan Tanda	51	President and Chief Executive Officer

Mr. Tanda has been President and Chief Executive Officer since February 2017. Prior to this, Mr. Tanda was an Executive Managing Board Director at Royal DSM NV, a leading global supplier of ingredients and material solutions for the food, dietary supplement, personal care, medical device, automotive, paint, electronic and bio-material markets, from March 2007 to January 2017.

Name	Age	Position with the Company
Robert Kuhn	54	Executive Vice President, Chief Financial Officer and Secretary

Mr. Kuhn has been Executive Vice President and Chief Financial Officer since September 2008. Mr. Kuhn has been Secretary since June 2011.

Name	Age	Position with the Company
Eldon Schaffer	51	President, Aptar Beauty + Home

Mr. Schaffer has been President of Aptar Beauty + Home since January 2016. Prior to this, Mr. Schaffer was President of Aptar Food + Beverage from 2012 to 2015 and President of Aptar Beauty + Home North America from 2010 to 2011.

Name	Age	Position with the Company
Gael Touya	47	President, Aptar Food + Beverage

Mr. Touya has been President of Aptar Food + Beverage since January 2016. Prior to this, Mr. Touya was President of Aptar Food + Beverage Europe from 2012 to 2015 and Business Development Vice President Skin Care and Color Cosmetics from 2010 to 2011.

Name	Age	Position with the Company
Salim Haffar	43	President, Aptar Pharma

Mr. Haffar has been President of Aptar Pharma since January 2014. From 2012 to 2013 Mr. Haffar worked with Capsugel, a leading pharmaceutical supplier of gelatin capsules for the oral drug delivery industry. From 2010 to 2012, he was President of Aptar Pharma's Prescription division.

Name	Age	Position with the Company
Ursula Saint Léger	53	Vice President of Human Resources

Ms. Saint Léger has been Vice President of Human Resources since October 2010.

Name	Age	Position with the Company
Stephen Hagge	65	Special Advisor to the Chief Executive Officer

Mr. Hagge has been Special Advisor to the Chief Executive Officer since February 2017, and is expected to serve in that position through March 31, 2017. Prior to this, Mr. Hagge was President and Chief Executive Officer from 2012 to 2017, Chief Operating Officer from 2008 to 2011, Executive Vice President from 1993 to 2011 and Secretary from 1993 to 2011.

There were no arrangements or understandings between any of the executive officers and any other person(s) pursuant to which such officers were elected.

Table of Contents

ITEM 1A. RISK FACTORS

Set forth below and elsewhere in this report and in other documents we file with the Securities and Exchange Commission are risks and uncertainties that could cause our actual results to materially differ from the results contemplated by the forward looking statements contained in this report and in other documents we file with the Securities and Exchange Commission. Additional risks and uncertainties not presently known to us, or that we currently deem immaterial, may also impair our business operations. You should carefully consider the following factors in addition to other information contained in this report on Form 10 K before purchasing any shares of our common stock.

FACTORS AFFECTING OPERATIONS OR OPERATING RESULTS

If there is deterioration in economic conditions in a particular region or market, our business and operating results could be materially adversely impacted. Due to our strong balance sheet, diverse product offerings, various end markets served, and our broad geographic presence, we believe we are well positioned to withstand slowness in any one particular region or market. However, economic uncertainties affect businesses such as ours in a number of ways, making it difficult to accurately forecast and plan our future business activities. A tightening of credit in financial markets or other factors may lead consumers and businesses to postpone spending, which may cause our customers to cancel, decrease or delay their existing and future orders with us. In addition, financial difficulties experienced by our suppliers, customers or distributors could result in product delays, increased accounts receivable defaults, inventory or supply challenges and pricing pressures. An interruption in supply may also impact our ability to meet customer demands. Consumer demand for our customers' products and shifting consumer preferences are unpredictable and could have a negative impact on our customers and our customers' demand for our products.

We face strong global competition and our market share could decline. All of the markets in which we operate are highly competitive and we continue to experience price competition in all product lines and segments. Competitors include privately and publicly held entities. Our competitors mainly range from regional to international companies. If we are unable to compete successfully, our market share may decline, which could materially adversely affect our results of operations and financial condition.

Geopolitical conditions, including direct or indirect acts of war or terrorism, could have a material adverse effect on our operations and financial results. Our operations could be disrupted by geopolitical conditions such as international boycotts and sanctions, acts of war, terrorist activity or other similar events. Such events could make it difficult or impossible to manufacture or deliver products to our customers, receive production materials from our suppliers, or perform critical functions, which could adversely affect our business globally or in certain regions. While we maintain similar manufacturing capacities at different locations and coordinate multi source supplier programs on many of our materials which would better enable us to respond to these types of events, we cannot be sure that our plans will fully protect us from all such disruptions. In addition, our customers may export their finished products using our dispensing devices that were sold in other regions and an adverse geopolitical event may impact the sales of our customers' products and thus indirectly negatively impact the demand for our dispensing solutions.

We have foreign currency translation and transaction risks that may materially adversely affect our operating results. A majority of our operations are located outside of the United States. Because of this, movements in exchange rates may have an impact on the translation of the financial statements of our foreign entities. Our primary foreign exchange exposure is to the Euro, but we have foreign exchange exposure to the Chinese Yuan, Brazilian Real, Mexican Peso, Swiss Franc, and other Asian, European and South American currencies. A strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect on our financial statements. Conversely, a weakening U.S. dollar has an additive translation effect. In some cases, we sell products denominated in a currency different from the currency in which the related costs are incurred. We manage our exposures to foreign exchange principally with

forward exchange contracts to economically hedge certain transactions and firm purchase and sales commitments denominated in foreign currencies. The volatility of currency exchange rates may materially affect our operating results.

Government regulation on environmental matters regarding recycling or environmental sustainability policies could impact our business. Future government regulations mandating the use or limitations of certain materials could impact our manufacturing processes or the technologies we use forcing us to reinvest in alternative materials or assets used in the production of our products.

Future government regulations of healthcare cost containment policies may impact our pharmaceutical sales. Review by governments of the number of drugs and prices thereof that will be paid by their insurance systems could affect future sales to the pharmaceutical industry and thereby adversely affect prices of and demand for our pharmaceutical products.

Consolidation of customer base could impact our business. We believe mergers and acquisitions within our customer base create opportunities for increasing sales due to the breadth of our product line, our international presence and our long term relationships with certain customers. However, consolidation of our customers could lead to pricing pressures, concentration of credit risk and fewer opportunities to introduce new products to the market.

Table of Contents

If our expansion initiatives are unsuccessful, our operating results and reputation may suffer. We are expanding our operations in a number of markets, including facilities expansions in North America, Europe and Asia. Expansion of our operations require a significant amount of time and attention from our senior management and/or capital investment. These activities present considerable challenges and risks, including the general economic and political conditions in the markets that we enter, attracting, training and retaining qualified and talented employees, infrastructure disruptions, fluctuations in currency exchange rates, the imposition of restrictions by governmental authorities, compliance with current, new and changing governmental laws and regulations and the cost of such compliance activities. If any of our expansion efforts are unsuccessful, our operating results and reputation may suffer.

The success or failure of our customers' products, particularly in the pharmaceutical market, may materially affect our operating results and financial condition. In the pharmaceutical market, the proprietary nature of our customers' products and the success or failure of their products in the market using our dispensing systems may have a material impact on our operating results and financial condition. We may potentially work for years on modifying our dispensing device to work in conjunction with a customer's drug formulation. If the customer's pharmaceutical product is not approved by regulatory bodies or it is not successful on the market, the associated costs may not be recovered.

Higher raw material costs and other inputs and an inability to increase our selling prices may materially adversely affect our operating results and financial condition. The cost of raw materials and other inputs (particularly plastic resin, rubber, metal, anodization costs and transportation and energy costs) are volatile and susceptible to rapid and substantial changes due to factors beyond our control, such as changing economic conditions, currency fluctuations, weather conditions, political unrest and instability in energy producing nations, and supply and demand pressures. Raw material costs may increase in the coming years and, although we have generally been able to increase selling prices to cover increased costs, future market conditions may prevent us from passing these increased costs on to our customers through timely price increases. In addition, we may not be able to improve productivity or realize savings from our cost reduction programs sufficiently enough to offset the impact of increased raw material costs. As a result, higher raw material costs could result in declining margins and operating results.

In difficult market conditions, our fixed costs structure combined with potentially lower revenues may negatively impact our results. Our business is characterized by relatively high fixed costs and, notwithstanding our utilization of third party manufacturing capacity, most of our production requirements are met by our own manufacturing facilities. In difficult environments, we are generally faced with a decline in the utilization rates of our manufacturing facilities due to decreases in product demand. During such periods, our plants do not operate at full capacity and the costs associated with this excess capacity are charged directly to cost of sales. Difficult market conditions in the future may adversely affect our utilization rates and consequently our future gross margins, and this, in turn, could have a material negative impact on our business, financial condition and results of operations.

If our unionized employees were to engage in a strike or other work stoppage, our business, operating results and financial position could be materially adversely affected. The majority of our European and Latin American employees are covered by collective bargaining arrangements made either at the local or national level in their respective countries and approximately 155 of our North American employees are covered by a collective bargaining agreement. Although we believe that our relations with our employees are satisfactory, no assurance can be given that this will continue. If disputes with our unions arise, or if our unionized workers engage in a strike or other work stoppage, we could incur higher labor costs or experience a significant disruption of operations, which could have a material adverse effect on our business, operating results and financial position.

Single sourced materials and manufacturing sites could adversely impact our ability to deliver product. The Company sources certain materials, especially some resins and rubber components for our pharmaceutical segment, from a single source. Any disruption in the supply of these materials could adversely impact our ability to deliver product to

our customers. Similarly, we have certain components and / or products that are manufactured at a single location or from a single machine or mold. Any disruption to the manufacturing process could also adversely impact our ability to deliver product to our customers.

If we were to incur a significant product liability claim above our current insurance coverage, our business, operating results and financial condition could be materially adversely affected. The failure of our devices to operate as intended may result in a product liability claim against us. We believe we maintain adequate levels of product liability insurance coverage. A product liability claim in excess of our insurance coverage or not covered by existing insurance may materially adversely affect our business, operating results and financial condition.

Table of Contents

Increased cybersecurity threats could pose a risk to our operations. Increased global information security threats and more sophisticated, targeted computer crime pose a risk to the confidentiality, availability and integrity of our data, operations and infrastructure. We continue to assess potential threats and make investments seeking to reduce the risk of these threats by employing a number of security measures, including employee training, comprehensive monitoring of our networks and systems, and maintenance of backup and protective systems. We also periodically test our systems for vulnerabilities and have on occasion used a third party to conduct such tests. To date, we have seen no material impact on our business or operations from these threats; however, we cannot guarantee that our security efforts will prevent unauthorized access or loss of functionality to our or our third-party providers' systems. Even with these mitigations, our information systems remain potentially vulnerable to sophisticated cybersecurity threats. Depending on their nature and scope, such threats could potentially lead to the compromise of confidential information, improper use of our systems and networks, manipulation and destruction of data, production downtimes and operational disruptions, which in turn could adversely affect our reputation, competitiveness and results of operations.

We have approximately $408 million in recorded goodwill at December 31, 2016, and changes in future business conditions could cause this asset to become impaired, requiring write downs that would reduce our operating income. We evaluate the recoverability of goodwill amounts annually, or more frequently when evidence of potential impairment exists. The impairment test is based on several factors requiring judgment. A decrease in expected reporting unit cash flows or changes in market conditions may indicate potential impairment of recorded goodwill and, as a result, our operating results could be materially adversely affected. See "Critical Accounting Estimates" in Part II, Item 7 for additional information.

We are subject to tax regulations in the many jurisdictions we operate, and changes in tax regulations could materially impact our results. Future changes in tax laws could impact our provision for income taxes, the amount of taxes payable and our deferred tax asset and liability balances. Recent proposals to lower the U.S. corporate income tax rate include a tax on unremitted earnings. We currently have $1.5 billion of unremitted foreign earnings, and a tax on such earnings could materially impact our results.

FACTOR AFFECTING APTARGROUP STOCK

Ownership by Certain Significant Stockholders. Currently, Aptar has four institutional stockholders who each own between 5% and 11% of our outstanding common stock. None of these stockholders have direct representation on our Board of Directors. If one of these stockholders decides to sell significant volumes of our stock, this could put downward pressure on the price of the stock.

ITEM 1B. UNRESOLVED STAFF COMMENTS

The Company has no unresolved comments from the SEC.

ITEM 2. PROPERTIES

We lease or own our principal offices and manufacturing facilities. None of the owned principal properties is subject to a lien or other encumbrance material to our operations. We believe that existing operating leases will be renegotiated as they expire, will be acquired through purchase options or that suitable alternative properties will be leased on acceptable terms. We consider the condition and extent of utilization of our manufacturing facilities and other properties to be generally good, and the capacity of our plants to be adequate for the needs of our business. The locations of our principal manufacturing facilities, by country, are set forth below:

ARGENTINA
Florencio Varela (1 & 2)
Tortuguitas (1 & 3)

BRAZIL
Cajamar (1)
Maringá Paraná (1 & 3)
Jundiai (1)

CHINA
Suzhou (1, 2 & 3)

COLOMBIA
Cali (1)

CZECH REPUBLIC
Ckyne (1 & 3)

FRANCE
Annecy (1 & 2)
Brecey (2)
Charleval (1 & 2)
Granville (2)
Le Neubourg (1)
Le Vaudreuil (2)
Oyonnax (1)
Poincy (1 & 3)
Verneuil Sur Avre (1)

GERMANY
Böhringen (1 & 2)
Dortmund (1)
Eigeltingen (2)
Freyung (1 & 3)
Menden (1)
Villingen-Schwenningen (1 & 2)

INDIA
Himachal Pradesh (1)
Hyderabad (1 & 3)
Mumbai (2)

INDONESIA
Cikarang, Bekasi (1)

IRELAND
Ballinasloe, County Galway (1)

ITALY
Manoppello (1)
San Giovanni Teatino (Chieti) (1 & 3)

MEXICO
Queretaro (1 & 3)

RUSSIA
Vladimir (1 & 3)

SPAIN
Madrid (1)
Torello (1 & 3)

SWITZERLAND
Mezzovico (2)

THAILAND
Chonburi (1)

UNITED KINGDOM
Leeds, England (1 & 3)

UNITED STATES
Cary, Illinois (1, 2 & 3)
Congers, New York (2)
Eatontown, New Jersey (1 & 2)
Libertyville, Illinois (1 & 3)
Lincolnton, North Carolina (3)
McHenry, Illinois (1 & 2)
Midland, Michigan (1 & 3)
Mukwonago, Wisconsin (1, 2 & 3)
Stratford, Connecticut (1)
Torrington, Connecticut (1)
Watertown, Connecticut (1)

---

(1) Locations of facilities manufacturing for the Beauty + Home segment.
(2) Locations of facilities manufacturing for the Pharma segment.
(3) Locations of facilities manufacturing for the Food + Beverage segment.

We also have sales personnel in countries other than those listed above. Our corporate office is located in Crystal Lake, Illinois.

ITEM 3. LEGAL PROCEEDINGS

The Company, in the normal course of business, is subject to a number of lawsuits and claims both actual and potential in nature. While management believes the resolution of these claims and lawsuits will not have a material adverse effect on the Company's financial position or results of operations or cash flows, claims and legal proceedings are subject to inherent uncertainties, and unfavorable outcomes could occur that could include amounts in excess of any accruals which management has established. Were such unfavorable final outcomes to occur, it is possible that they could have a material adverse effect on our financial position, results of operations and cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Table of Contents

PART II

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

MARKET FOR REGISTRANT'S COMMON EQUITY

Our Common Stock is traded on the New York Stock Exchange under the symbol ATR. Information regarding market prices of our Common Stock and dividends declared may be found in Note 20 to the Consolidated Financial Statements in Item 8 (which is incorporated by reference herein). As of February 20, 2017, there were approximately 230 holders of record of our Common Stock. A substantially greater number of holders of our Common Stock are "street name" or beneficial holders, whose shares of record are held by banks, brokers, and other financial institutions.

RECENT SALES OF UNREGISTERED SECURITIES

The employees of Aptargroup UK Holdings Limited (French Branch) and Aptar France S.A.S., our subsidiaries, are eligible to participate in the FCP Aptar Savings Plan (the "Plan"). All eligible participants are located outside of the United States. An independent agent purchases shares of Common Stock available under the Plan for cash on the open market and we do not issue shares. We do not receive any proceeds from the purchase of Common Stock under the Plan. The agent under the Plan is Banque Nationale de Paris Paribas Fund Services. No underwriters are used under the Plan. All shares are sold in reliance upon the exemption from registration under the Securities Act of 1933 provided by Regulation S promulgated under that Act. During the quarter ended December 31, 2016, the Plan purchased 4,460 shares of our Common Stock on behalf of the participants at an average price of $73.23 per share, for an aggregate amount of $327 thousand, and sold no shares of our Common Stock on behalf of the participants. At December 31, 2016, the Plan owned 70,622 shares of our Common Stock.

ISSUER PURCHASES OF EQUITY SECURITIES

On October 20, 2016, the Company announced a share repurchase authorization of up to $350 million of Common Stock. This authorization replaces previous authorizations and has no expiration date. AptarGroup may repurchase shares through the open market, privately negotiated transactions or other programs, subject to market conditions.

On December 16, 2014, the Company entered into an agreement to repurchase approximately $250 million of its Common Stock under an accelerated share repurchase program (the "ASR program"). The ASR program was part of the Company's previous $350 million share repurchase authorization announced on October 30, 2014. On December 17, 2014, the Company paid $250 million to Wells Fargo Bank N.A. ("Wells Fargo") in exchange for approximately 3.1 million shares. On September 25, 2015, the Company settled the ASR program with Wells Fargo and received approximately 719 thousand additional shares. The total number of shares repurchased under the ASR program was approximately 3.8 million shares.

Shares repurchased subsequent to the ASR program have been immediately retired. The Company spent $46.6 million to repurchase approximately 628 thousand shares during the fourth quarter of 2016.

The following table summarizes the Company's purchases of its securities for the quarter ended December 31, 2016:

	Total Number		Total Number Of Shares Purchased as Part Of	Dollar Value Of Shares that May Yet be Purchased Under The

Period	Of Shares Purchased	Average Price Paid Per Share	Publicly Announced Plans Or Programs	Plans or Programs (in millions)
10/1 – 10/31/16	—	$ —	—	$ 350.0
11/1 – 11/30/16	43,000	76.11	43,000	346.7
12/1 – 12/31/16	584,548	74.12	584,548	303.4
Total	627,548	$ 74.26	627,548	$ 303.4

Table of Contents

SHARE PERFORMANCE

The following graph shows a five year comparison of the cumulative total stockholder return on AptarGroup's Common Stock as compared to the cumulative total return of the Standard & Poor's 500 Composite Stock Price Index and to an index of peer group companies we selected. The companies included in the peer group are: A. Schulman, Inc., AEP Industries Inc., Bemis Company, Inc., Berry Plastics Group, Inc., Crown Holdings, Inc., Graphic Packaging Holding Company, Greif Inc., H.B. Fuller Company, International Flavors and Fragrances, Inc., Owen's Illinois, Inc., Packaging Corporation of America, PH Glatfelter Co., Sealed Air Corporation, Silgan Holdings, Inc., Sonoco Products Company, TriMas Corporation and West Pharmaceutical Services Inc.

Comparison of 5 Year Cumulative Stockholder Returns

The graph and other information furnished in the section titled "Share Performance" under this Part II, Item 5 of this Form 10 K shall not be deemed to be "soliciting" material or to be "filed" with the Securities and Exchange Commission or subject to Regulation 14A or 14C, or to the liabilities of Section 18 of the Securities Exchange Act of 1934, as amended.

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA

FIVE YEAR SUMMARY OF SELECTED FINANCIAL DATA

Dollars in millions, except per share data Years Ended December 31,	2016	2015	2014	2013	2012
Statement of Income Data:					
Net Sales	$ 2,330.9	$ 2,317.1	$ 2,597.8	$ 2,520.0	$ 2,331.0
Cost of sales (exclusive of depreciation and amortization shown below) (1)	1,498.1	1,502.7	1,755.3	1,708.9	1,590.4
% of Net Sales	64.3 %	64.8 %	67.6 %	67.8 %	68.2 %
Selling, research & development and administrative	367.6	351.5	383.9	364.7	341.6
% of Net Sales	15.8 %	15.2 %	14.8 %	14.4 %	14.7 %
Depreciation and amortization (2)	154.8	138.9	152.2	150.0	137.0
% of Net Sales	6.6 %	6.0 %	5.8 %	6.0 %	5.9 %
Restructuring initiatives	—	—	—	11.8	3.1
% of Net Sales	—	—	—	0.5 %	0.1 %
Operating Income	310.5	324.1	306.4	284.6	258.9
% of Net Sales	13.3 %	14.0 %	11.8 %	11.3 %	11.1 %
Net Income	205.6	199.3	191.6	171.9	162.4
% of Net Sales	8.8 %	8.6 %	7.4 %	6.8 %	7.0 %
Net Income Attributable to AptarGroup, Inc.	205.6	199.3	191.7	172.0	162.6
% of Net Sales	8.8 %	8.6 %	7.4 %	6.8 %	7.0 %
Net Income Attributable to AptarGroup, Inc. per Common Share:					
Basic	3.27	3.19	2.95	2.60	2.45
Diluted	3.17	3.09	2.85	2.52	2.38
Balance Sheet and Other Data:					
Capital Expenditures	$ 129.0	$ 149.3	$ 161.9	$ 151.5	$ 174.1
Total Assets	2,606.8	2,437.0	2,436.5	2,497.1	2,323.6
Long-Term Obligations	772.7	760.8	588.2	354.1	352.0
Net Debt (3)	480.3	298.1	440.4	184.0	196.9
AptarGroup, Inc. Stockholders' Equity	1,174.0	1,149.4	1,103.4	1,479.8	1,379.9
Capital Expenditures % of Net Sales	5.5 %	6.4 %	6.2 %	6.0 %	7.5 %
Interest Bearing Debt to Total Capitalization (4)	44.6 %	41.6 %	43.2 %	25.0 %	23.6 %
Net Debt to Net Capitalization (5)	29.0 %	20.6 %	28.5 %	11.1 %	12.5 %
Cash Dividends Declared per Common Share	1.22	1.14	1.09	1.00	0.88

(1)

Cost of sales includes $7.4 million reduction in expense for 2015 due to a change in accounting method relating to our inventory accounting methods.

(2) Depreciation and amortization includes $2.7 million and $1.6 million of accelerated depreciation related to the European restructuring plan for the year ended December 31, 2013 and 2012, respectively.

(3) Net Debt is interest bearing debt less cash and cash equivalents.

(4) Total Capitalization is AptarGroup, Inc. Stockholders' Equity plus Interest Bearing Debt.

(5) Net Capitalization is AptarGroup, Inc. Stockholders' Equity plus Net Debt.

Table of Contents

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

(Dollars in thousands, except per share amounts or as otherwise indicated)

The objective of the following Management's Discussion and Analysis of Consolidated Results of Operations and Financial Condition ("MD&A") is to help the reader understand the financial performance of AptarGroup, Inc. MD&A is presented in eight sections: Overview, Results of Operations, Liquidity and Capital Resources, Off Balance Sheet Arrangements, Overview of Contractual Obligations, Recently Issued Accounting Pronouncements, Critical Accounting Estimates, Operations Outlook and Forward Looking Statements. MD&A should be read in conjunction with our Consolidated Financial Statements and accompanying Notes to Consolidated Financial Statements contained elsewhere in this Annual Report on Form 10 K.

In MD&A, "we," "our," "us," "AptarGroup," "AptarGroup, Inc.", "Aptar" and the "Company" refer to AptarGroup, Inc. and it consolidated subsidiaries.

OVERVIEW

GENERAL

We are a leading global provider of a broad range of innovative packaging dispensing and sealing solutions primarily for the beauty, personal care, home care, prescription drug, consumer health care, injectables, food and beverage markets. Our creative packaging solutions enhance the convenience, safety and security of consumers around the globe and allow our customers to differentiate their products in the market.

In addition to the information presented herein that conforms to U.S. GAAP, we also present certain financial information that does not conform to U.S. GAAP, which are referred to as non-U.S. GAAP financial measures. Management may assess our financial results both on a U.S. GAAP basis and on a non-U.S. GAAP basis. We believe it is useful to present these non-U.S.GAAP financial measures because they allow for a better period over period comparison of operating results by removing the impact of items that, in management's view, do not reflect Aptar's core operating performance. These non-U.S. GAAP financial measures should not be considered in isolation or as a substitute for U.S. GAAP financial results, but should be read in conjunction with the audited consolidated statements of income and other information presented herein. Investors are cautioned against placing undue reliance on these non-U.S. GAAP measures. Further, investors are urged to review and consider carefully the adjustments made by management to the most directly comparable U.S. GAAP financial measure to arrive at these non-U.S. GAAP financial measures. See the reconciliation of non-U.S. GAAP measures starting on page 22.

For the year ended December 31, 2016, reported sales increased 1% to $2.33 billion from $2.32 billion a year ago. Excluding the negative impact from changes in currency exchange rates and the positive impact from acquisitions, core sales were even with the prior year. A reconciliation of core sales growth to reported net sales growth, the most directly comparable U.S. GAAP measure, can be found on page 16. 2016 was a difficult year to deliver growth in our Beauty + Home segment due to weak market conditions. We had excellent performance from the acquired Mega Airless business that will continue to play an important part of this segment's growth and we deployed new technologies that have much potential. Our Pharma segment had another excellent year reporting growth across each market. Our Food + Beverage segment performed well despite facing challenging demand in the Asian beverage market. We did an excellent job of maintaining or growing adjusted EBITDA margins across our business segments, achieving a consolidated operating income margin of 13%, adjusted EBITDA margin of 20% and reporting record annual earnings per share.

2016 HIGHLIGHTS

- Reported sales increased 1%.
- Reported annual earnings per share of $3.17 versus $3.09 in the prior year.
- Reported annual net income increased to $206 million.
- Adjusted annual EBITDA increased to $476 million.
- We paid increased annual dividends for the 23rd consecutive year (current annualized dividend is $1.28 per share).

Table of Contents

RESULTS OF OPERATIONS

The following table sets forth the consolidated statements of income and the related percentages of net sales for the periods indicated:

Years Ended December 31,	2016		2015		2014	
	Amount in $ Thousands	% of Net Sales	Amount in $ Thousands	% of Net Sales	Amount in $ Thousands	% of Net Sales
Net sales	$ 2,330,934	100.0 %	$ 2,317,149	100.0 %	$ 2,597,809	100.0 %
Cost of sales (exclusive of depreciation and amortization shown below)	1,498,070	64.3	1,502,650	64.8	1,755,266	67.6
Selling, research & development and administrative	367,562	15.8	351,461	15.2	383,909	14.8
Depreciation and amortization	154,802	6.6	138,893	6.0	152,218	5.8
Operating income	310,500	13.3	324,145	14.0	306,416	11.8
Other expense	(30,003)	(1.3)	(29,574)	(1.3)	(20,115)	(0.8)
Income before income taxes	280,497	12.0	294,571	12.7	286,301	11.0
Net Income	205,604	8.8	199,295	8.6	191,624	7.4
Effective tax rate	26.7 %		32.3 %		33.1 %	
Adjusted EBITDA margin (1)	20.4 %		19.6 %		17.5 %	

(1) Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation of Non-U.S. GAAP measures starting on page 22.

NET SALES

For the year ended December 31, 2016, reported net sales increased 1% to $2.33 billion from $2.32 billion a year ago. While the average U.S. dollar exchange rate compared to the Euro remained stable, the U.S. dollar strengthened compared to the majority of other currencies impacting our business, resulting in a negative currency translation impact of 2%. The acquisition of Mega Airless positively impacted sales by 3%. Therefore, sales excluding acquisitions and changes in foreign currency rates ("core sales") were even with the prior year.

Year Ended December 31, 2016 Net Sales Change versus Prior Year	Beauty + Home	Pharma	Food + Beverage	Total
Core Sales Growth	(2) %	5 %	1 %	— %
Acquisitions	4 %	1 %	— %	3 %
Currency Effects	(3) %	(2) %	(2) %	(2) %
Total Reported Net Sales Growth	(1) %	4 %	(1) %	1 %

In 2015, we reported net sales of $2.32 billion, 11% below 2014 reported net sales of $2.60 billion. The average U.S. dollar exchange rate strengthened significantly relative to the Euro and also strengthened relative to other currencies impacting our business, resulting in a negative currency translation impact of 12%. Therefore, core sales increased by

1% in 2015 compared to 2014.

Year Ended December 31, 2015 Net Sales Change versus Prior Year	Beauty + Home		Pharma		Food + Beverage		Total	
Core Sales Growth	(2)	%	8	%	2	%	1	%
Currency Effects	(13)	%	(13)	%	(7)	%	(12)	%
Total Reported Net Sales Growth	(15)	%	(5)	%	(5)	%	(11)	%

Foreign currency effects are approximations of the adjustment necessary to state the prior year net sales using current period exchange rates. For further discussion on net sales by reporting segment, please refer to the segment analysis of net sales and operating income on the following pages.

Table of Contents

The following table sets forth, for the periods indicated, net sales by geographic location:

Years Ended December 31,	2016	% of Total		2015	% of Total		2014	% of Total	
Domestic	$ 619,814	27	%	$ 633,522	27	%	$ 642,060	25	%
Europe	1,329,398	57	%	1,287,309	56	%	1,506,992	58	%
Other Foreign	381,722	16	%	396,318	17	%	448,757	17	%

COST OF SALES (EXCLUSIVE OF DEPRECIATION AND AMORTIZATION SHOWN BELOW)

Our cost of sales as a percent of net sales decreased to 64.3% in 2016 compared to 64.8% in 2015. The decrease is due to the mix of sales across our different business segments. Our Pharma segment sales represented a higher percentage of our overall sales in 2016 compared to 2015. This positively impacts our cost of sales percentage as margins on our pharmaceutical products typically are higher than the overall Company average. Also, tooling sales were approximately $7.3 million lower in 2016 compared to the prior year. Sales of custom tooling typically generates lower margins than product sales, so lower tooling sales positively impacts cost of sales as a percentage of sales. We also realized lower raw material input costs, which helped offset $2.6 million of incremental costs due to a purchase accounting adjustment related to the write-up to fair value of the Mega Airless inventory in 2016. 2015 results were positively impacted by the $7.4 million change in accounting principle related to inventory valuation methods in the prior year.

In 2015, our cost of sales as a percent of net sales decreased to 64.8% compared to 67.6% in 2014. The decrease is partly due to a one-time favorable $7.4 million change in our inventory accounting principle for the inventory valuation method of certain operating entities in our North American business to the first-in first-out (FIFO) method from the last-in first-out (LIFO) method, which was recorded in the second quarter of 2015. Operationally, we benefitted from our mix of products sold. Our Pharma segment sales represented a higher percentage of our overall sales in 2015 compared to 2014. We also benefitted from lower material costs, cost savings initiatives and productivity improvements along with a positive impact from the timing delay of resin pass-throughs of approximately $8.9 million as resin prices declined significantly during 2015.

SELLING, RESEARCH & DEVELOPMENT AND ADMINISTRATIVE

Our Selling, Research & Development and Administrative expenses (“SG&A”) increased approximately 5% or $16.1 million to $367.6 million in 2016 compared to $351.5 million in 2015. Excluding changes in foreign currency rates, SG&A increased by approximately $22.9 million compared to the same period a year ago. The increase is mainly due to transaction costs of $5.6 million related to the Mega Airless acquisition, along with $8.5 million of Mega Airless operational expenses. We also incurred higher information technology costs associated with our ongoing enterprise resource planning system implementation along with general increases in compensation expense. For 2016, SG&A as a percentage of net sales increased to 15.8% compared to 15.2% of net sales in the same period of the prior year.

In 2015, our SG&A expenses decreased approximately 8% or $32.4 million compared to the same period a year ago. Excluding changes in foreign currency rates, SG&A increased by approximately $11.6 million compared to the same period a year ago. Cost savings initiatives were offset by higher professional fees related to our ongoing information systems implementations and approximately $1.9 million of transaction costs related to the Mega Airless acquisition, which closed in the first quarter of 2016. We also realized higher pension costs related to lower discount rates along with other normal inflationary increases. For 2015, SG&A as a percentage of net sales increased to 15.2%

compared to 14.8% of net sales in the same period of the prior year.

DEPRECIATION AND AMORTIZATION

Reported depreciation and amortization expense increased approximately 11% or $15.9 million to $154.8 million in 2016 compared to $138.9 million in 2015. Excluding changes in foreign currency rates, depreciation and amortization increased by approximately $18.0 million compared to the same period a year ago. The increase is mainly due to $14.0 million of incremental depreciation and amortization related to the Mega Airless acquisition along with incremental costs associated with our continued investments in new products and the roll-out of our global enterprise resource planning system. Due to these higher expenses, depreciation and amortization as a percentage of net sales increased to 6.6% compared to 6.0% for the same period a year ago.

In 2015, depreciation and amortization expense decreased approximately 9% or $13.3 million. Excluding changes in foreign currency rates, depreciation and amortization increased by approximately $4.4 million compared to the same period a year ago. This increase is mainly due to our investments in new products and our global enterprise resource planning system. Depreciation and amortization as a percentage of net sales increased to 6.0% compared to 5.8% for the same period a year ago.

Table of Contents

OPERATING INCOME

Operating income decreased approximately $13.6 million or 4% to $310.5 million in 2016 compared to $324.1 million in 2015. The prior year's operating income includes the positive impact of a $7.4 million change in accounting principle related to inventory valuation methods. Excluding changes in currency rates and this $7.4 million change in accounting principle, operating income decreased by approximately $1.9 million in 2016. Improvements in our gross margin was offset by higher SG&A and depreciation and amortization costs along with $5.6 million of Mega Airless acquisition costs and a $2.6 million purchase accounting adjustment related to the write-up to fair value of the Mega Airless inventory which was purchased and subsequently sold during the first quarter of 2016. Reported operating income as a percentage of net sales decreased to 13.3% in 2016 compared to 14.0% for the same period in the prior year due to the same factors mentioned above.

In 2015, operating income increased approximately $17.7 million or 6% to $324.1 million. Excluding changes in currency rates, operating income increased by approximately $57.6 million in 2015. We benefitted from the $7.4 million change in inventory accounting principle along with the strong results of our Pharma and Food + Beverage segments. We also benefitted from a positive impact from the timing delay in passing through resin cost decreases and certain cost saving initiatives driven by the segments, which were slightly offset by transaction costs related to the Mega Airless acquisition. Reported operating income as a percentage of net sales increased to 14.0% in 2015 compared to 11.8% for the same period in the prior year due to the same factors mentioned above.

NET OTHER EXPENSES

Net other expenses in 2016 increased to $30.0 million compared to $29.6 million in 2015. We recognized lower interest income and higher interest expense as we funded our Mega Airless acquisition with cash on hand and borrowings on our revolving line of credit. We also recognized a $2.0 million gain on the sale of our minority interest in an injectable drug delivery device company in 2016 while we reported a $2.9 million gain due to an insurance recovery on the involuntary conversion of fixed assets related to a fire in one of our Brazilian facilities in 2015.

In 2015, net other expenses increased to $29.6 million compared to $20.1 million in 2014. During 2015, we incurred $13.6 million of higher interest expense related to our additional $475 million senior notes established late 2014 and early 2015 along with increased costs of our forward exchange contracts. These increases were offset by a $2.9 million gain due to an insurance recovery on the involuntary conversion of fixed assets related to a fire in one of our Brazilian facilities. In addition, 2014 net other expenses included a $1.5 million write-down on a non-controlling investment.

EFFECTIVE TAX RATE

The reported effective tax rate on net income for 2016 and 2015 was 26.7% and 32.3%, respectively. The lower tax rate for 2016 reflects the reduction in the French corporate tax rate (1.7%) and higher investment incentives in both France and Italy (2.2%). The Company also recorded a benefit from the resolution of uncertain tax positions in France and Italy (0.8%) during 2016.

The reported effective tax rate on net income for 2015 and 2014 was 32.3% and 33.1%, respectively. The lower tax rate for 2015 is attributable to the reduction of valuation allowances related to U.S. state tax credits and tax benefits associated with exceptional depreciation provisions enacted in France during 2015.

NET INCOME ATTRIBUTABLE TO APTARGROUP, INC.

We reported net income of $205.6 million compared to $199.3 million reported in 2015 and $191.7 million reported in 2014.

BEAUTY + HOME SEGMENT

Years Ended December 31,	2016		2015		2014		% Change 2016 vs. 2015		% Change 2015 vs. 2014	
Net Sales	$ 1,261,086		$ 1,272,946		$ 1,498,297		(0.9)	%	(15.0)	%
Segment Income (1)	100,569		98,707		98,368		1.9		0.3	
Segment Income as a percentage of Net Sales	8.0	%	7.8	%	6.6	%				
Adjusted EBITDA margin (2)	14.8	%	13.7	%	12.3	%				

(1) Segment income is defined as earnings before net interest expense, certain corporate expenses and income taxes. The Company evaluates performance of its business units and allocates resources based upon segment income. For a reconciliation of segment income to income before income taxes, see Note 17 to the Consolidated Financial Statements in Item 8.

(2) Adjusted EBITDA margin is calculated as Adjusted EBITDA divided by Reported Net Sales. See the reconciliation of Non-U.S. GAAP measures starting on page 22.

Table of Contents

Reported net sales decreased approximately 1% in 2016 to $1.26 billion compared to $1.27 billion in 2015. The Mega Airless acquisition positively impacted net sales by 4% in 2016 while changes in currency rates negatively impacted net sales by 3%. Therefore, core sales decreased 2% in 2016 compared to the same period in the prior year. The majority of this decrease is due to lower tooling sales and the pass-through of lower resin prices to our customers, which negatively impacted sales for 2016 by $15.4 million and $4.5 million, respectively. Core sales to the beauty market were flat while core sales to both the personal care and home care markets declined 4% during 2016 compared to the same period in the prior year. For the beauty market, growth in sales of our products to the color cosmetics and facial skin care application fields were offset by lower tooling sales. Sales of our products to the personal care markets experienced soft customer demand across their main application fields with the exception of body care. Strong insecticide and industrial product sales to the home care market were offset by lower customer demand in laundry care.

Year Ended December 31, 2016 Net Sales Change over Prior Year	Personal Care		Beauty		Home Care		Total	
Core Sales Growth	(4)	%	—	%	(4)	%	(2)	%
Acquisitions	3	%	6	%	—	%	4	%
Currency Effects	(3)	%	(2)	%	(2)	%	(3)	%
Total Reported Net Sales Growth	(4)	%	4	%	(6)	%	(1)	%

In 2015, reported net sales decreased approximately 15% to $1.27 billion compared to $1.50 billion in 2014. Changes in foreign currency negatively impacted reported sales for 2015 by 13%. Core sales, which exclude changes in exchange rates, decreased 2% in 2015 compared to the prior year. Core sales to the personal care, beauty and home care markets decreased by 5%, 1% and 2%, respectively, in 2015 compared to 2014. We experienced global market softness in all regions except Asia leading to a sales decline on a constant currency basis compared to the prior year. Decreases in selling prices due to contractual resin cost pass-throughs to our customers negatively impacted sales by $9.1 million. Customer tooling sales, excluding foreign currency changes, increased $8.0 million in 2015 to $36.9 million compared to $28.9 million in the prior year.

Year Ended December 31, 2015 Net Sales Change over Prior Year	Personal Care		Beauty		Home Care		Total	
Core Sales Growth	(5)	%	(1)	%	(2)	%	(2)	%
Currency Effects	(10)	%	(15)	%	(10)	%	(13)	%
Total Reported Net Sales Growth	(15)	%	(16)	%	(12)	%	(15)	%

In spite of the decrease in net sales, segment income for 2016 increased slightly to $100.6 million from $98.7 million reported in 2015. The increase compared to the prior year is partly related to our mix of product sales due to the contribution of airless product sales related to our Mega Airless acquisition. We also continue to focus on operational and material cost savings initiatives. Segment income was negatively impacted by $2.2 million due to a purchase accounting adjustment related to the write-up to fair value of the Mega Airless inventory we purchased and subsequently sold during the first quarter.

Segment income for 2015 increased slightly to $98.7 million from $98.4 million reported in 2014. The negative impacts of foreign currency rate changes and lower product sales were more than offset by lower material costs, cost

savings initiatives and improved productivity, mainly in North America. We recognized a $2.4 million negative transaction effect related to the importing of components into Latin America from different regions due to the continued devaluation of certain Latin American currencies. However, this was offset by a $5.1 million favorable impact from the timing of resin pass-throughs in 2015, primarily in North America.

PHARMA SEGMENT

Years Ended December 31,	2016	2015	2014	% Change 2016 vs. 2015	% Change 2015 vs. 2014
Net Sales	$ 741,473	$ 712,220	$ 751,226	4.1 %	(5.2) %
Segment Income	219,039	210,509	204,698	4.1	2.8
Segment Income as a percentage of Net Sales	29.5 %	29.6 %	27.2 %		
Adjusted EBITDA margin	35.0 %	34.6 %	32.8 %		

Table of Contents

Reported net sales increased approximately 4% in 2016 to $741.5 million compared to $712.2 million in 2015. The Mega Airless acquisition positively impacted net sales by 1% in 2016 while changes in currency rates negatively impacted net sales by 2%. Therefore, core sales increased 5% in 2016 compared to the same period in the prior year. All three markets reported increases during 2016 with core sales to the prescription drug, consumer health care and injectables markets increasing 2%, 11% and 4%, respectively. Prescription growth was led by strong demand for allergic rhinitis and central nervous system product sales. We also experienced strong demand for the sales of our products to the eye care and dermal drug delivery application fields in the consumer health care market. Injectables sales also grew across the majority of their application fields. Customer tooling sales, excluding foreign currency changes, increased $11.2 million in 2016 to $31.5 million compared to $20.3 million in the prior year.

Year Ended December 31, 2016 Net Sales Change over Prior Year	Prescription Drug		Consumer Health Care		Injectables		Total	
Core Sales Growth	2	%	11	%	4	%	5	%
Acquisitions	—	%	5	%	—	%	1	%
Currency Effects	(1)	%	(4)	%	—	%	(2)	%
Total Reported Net Sales Growth	1	%	12	%	4	%	4	%

In 2015, reported net sales decreased approximately 5% to $712.2 million compared to $751.2 million in 2014. Foreign currency changes negatively impacted total segment sales by 13%. Core sales, which exclude changes in exchange rates, increased 8% in 2015 compared to the prior year. Core sales to the prescription and injectables markets increased 13% and 7%, respectively, in 2015 compared to the same period in the prior year. Prescription growth was led by strong demand for allergy products in both over-the-counter and prescription versions in the U.S. market as well as generics in Europe. We also experienced strong demand for our Asthma/COPD metered dose inhaler aerosol valves from key branded and generics customers worldwide. Injectables grew on increased stopper and syringe component sales with strong demand in Europe, the U.S., India and Latin America. Core sales to the consumer health care market were down slightly to the prior year as growth in our non-prescription nasal decongestant business was offset by the softness in Eastern Europe and customer inventory reduction plans. Customer tooling sales, excluding foreign currency changes, increased $6.0 million in 2015 to $20.3 million compared to $14.3 million in the prior year.

Year Ended December 31, 2015 Net Sales Change over Prior Year	Prescription Drug		Consumer Health Care		Injectables		Total	
Core Sales Growth	13	%	(1)	%	7	%	8	%
Currency Effects	(14)	%	(11)	%	(15)	%	(13)	%
Total Reported Net Sales Growth	(1)	%	(12)	%	(8)	%	(5)	%

Segment income for 2016 increased approximately 4% to $219.0 million compared to $210.5 million in 2015. This increase is due to the additional product and tooling sales discussed above along with favorable product mix within the segment. Cost savings initiatives partially offset costs related to an enterprise resource system implementation and the impact of a purchase accounting adjustment of $0.4 million related to the write-up to fair value of the Mega Airless inventory we purchased and subsequently sold during the first quarter of 2016. We also recognized a $2.0 million gain on the sale of our minority interest in an injectable drug delivery device company in 2016.

In 2015, segment income increased approximately 3% to $210.5 million compared to $204.7 million in 2014. This increase is mainly attributed to the higher sales volumes and improved product mix within the segment as well as cost containment initiatives. Prior year results also included a $1.5 million write-down on a non-controlling investment to align with the current fair value.

FOOD + BEVERAGE SEGMENT

Years Ended December 31,	2016	2015	2014	% Change 2016 vs. 2015	% Change 2015 vs. 2014
Net Sales	$ 328,375	$ 331,983	$ 348,286	(1.1) %	(4.7) %
Segment Income	37,697	42,731	37,728	(11.8)	13.3
Segment Income as a percentage of Net Sales	11.5 %	12.9 %	10.8 %		
Adjusted EBITDA margin	18.8 %	19.3 %	16.6 %		

Table of Contents

Reported net sales decreased by approximately 1% in 2016 to $328.4 million compared to $332.0 million in 2015. Excluding a 2% negative impact from the changes in foreign currency rates, core sales increased 1%. Higher product sales were offset by the pass-through of lower resin prices to our customers and lower tooling sales of $4.0 million and $3.1 million, respectively, in 2016 compared to the prior year. Core sales of our products to the food market increased 9% while core sales of our products to the beverage market decreased approximately 7% in 2016 compared to the prior year. Sales to the food market increased with strong demand for our sauces and condiments products along with increases in the dairy and infant formula application fields. For the beverage market, we experienced a decrease in the demand for our products to the functional drink applications, mainly in China.

Year Ended December 31, 2016 Net Sales Change over Prior Year	Food		Beverage		Total	
Core Sales Growth	9	%	(7)	%	1	%
Currency Effects	(2)	%	(3)	%	(2)	%
Total Reported Net Sales Growth	7	%	(10)	%	(1)	%

In 2015, reported net sales decreased by approximately 5% to $332.0 million compared to $348.3 million in 2014. Excluding changes in foreign currency rates, sales increased 2%. Decreases in prices due to resin pass-throughs to our customers negatively impacted sales by $6.6 million while customer tooling sales, excluding foreign currency changes, decreased $11.5 million in 2015 to $15.6 million compared to $27.1 million in the prior year. Sales of our products, excluding foreign currency changes, to the food market increased 3% and core sales of our products to the beverage market increased approximately 1% in 2015 compared to the prior year. Broad based growth in the food market was partially offset by lower tooling sales of $10.9 million in 2015 compared to 2014. Beverage sales increased slightly as higher bottled water sales offset weakness in the functional drink and concentrated beverage flavorings applications.

Year Ended December 31, 2015 Net Sales Change over Prior Year	Food		Beverage		Total	
Core Sales Growth	3	%	1	%	2	%
Currency Effects	(6)	%	(7)	%	(7)	%
Total Reported Net Sales Growth	(3)	%	(6)	%	(5)	%

Segment income decreased approximately 12% to $37.7 million in 2016 compared to $42.7 million in 2015. Profit associated with increased sales to the food market along with cost savings initiatives did not completely offset the decrease in profitability from the shortfall in sales of our products to the beverage market. Lower demand also led to lower operating performance in China along with a negative impact due to the mix of products sold during 2016 compared to the same period in the prior year. Resin costs also negatively impacted segment income by approximately $0.9 million in 2016.

In 2015, segment income increased approximately 13% to $42.7 million compared to $37.7 million in 2014. This increase is mainly attributed to higher product sales volumes, improved operational performance and a $3.8 million favorable impact due to the timing of resin pass-throughs.

CORPORATE & OTHER

Certain costs that are not allocated to our three operating business segments are classified as “Corporate & Other,” which is presented separately in Note 17 of the Notes to the Consolidated Financial Statements. Corporate & Other primarily includes certain corporate compensation, professional fees, certain information system costs and LIFO inventory adjustments (prior to our accounting change in the second quarter of 2015).

Corporate & Other expense in 2016 increased to $44.2 million compared to $28.4 million in 2015. Excluding the impact of a favorable $7.4 million change in accounting principle related to our inventory valuation method in the prior year, Corporate & Other expense increased $8.4 million in 2016 compared to the prior year. This increase is mainly due to $5.6 million of transaction costs related to the Mega Airless acquisition reported in the first quarter of 2016. In addition, the prior year Corporate & Other expense was reduced by $2.9 million of gain due to an insurance recovery on the involuntary conversion of fixed assets related to a fire in one of our Brazilian facilities.

In 2015, Corporate & Other expense decreased to $28.4 million compared to $38.3 million in 2014. This decrease is primarily due to the favorable impact of a $7.4 million change in accounting principle related to our inventory valuation method during the second quarter, $2.9 million of gain due to an insurance recovery on the involuntary conversion of fixed assets related to a fire in one of our Brazilian facilities along with the positive effect of changes in exchange rates on the translation of foreign based costs. These decreases were partially offset by $1.9 million of transaction costs related to the Mega Airless acquisition.

Table of Contents

NON-U.S. GAAP MEASURES

In addition to the information presented herein that conforms to U.S. GAAP, we also present financial information that does not conform to U.S. GAAP, which are referred to as non-U.S. GAAP financial measures. Management may assess our financial results both on a U.S. GAAP basis and on a non-U.S. GAAP basis. We believe it is useful to present these non-U.S.GAAP financial measures because they allow for a better period-over-period comparison of operating results by removing the impact of items that, in management's view, do not reflect Aptar's core operating performance. These non-U.S. GAAP financial measures should not be considered in isolation or as a substitute for U.S. GAAP financial results, but should be read in conjunction with the audited consolidated statements of income and other information presented herein. Investors are cautioned against placing undue reliance on these non-U.S. GAAP measures. Further, investors are urged to review and consider carefully the adjustments made by management to the most directly comparable U.S. GAAP financial measure to arrive at these non-U.S. GAAP financial measures.

In our MD&A, we exclude the impact of foreign currency translation when presenting net sales information, which we define as "constant currency." Changes in net sales excluding the impact of foreign currency translation is a non-U.S. GAAP financial measure. As a worldwide business, it is important that we take into account the effects of foreign currency translation when we view our results and plan our strategies. Consequently, when our management looks at our financial results to measure the core performance of our business, we exclude the impact of foreign currency translation by translating our prior period results at current period foreign currency exchange rates. As a result, our management believes that these presentations are useful internally and may be useful to investors. We also exclude the impact of material acquisitions and dispositions when comparing results to prior periods. Changes in operating results excluding the impact of acquisitions are non-U.S. GAAP financial measures. We feel it is important to exclude the impact of acquisitions on year-over-year results in order to evaluate performance on a more comparable basis.

We also present our adjusted earnings before net interest and taxes ("Adjusted EBIT") and adjusted earnings before net interest, taxes, depreciation and amortization ("Adjusted EBITDA"), which excludes the impact of transaction costs and purchase accounting adjustments that affected the inventory values related to the Mega Airless acquisition, income from a change in the method of valuing inventory (from LIFO to FIFO) that was recorded in the second quarter of 2015, and a gain on insurance recovery recorded in the fourth quarter of 2015.

Finally, we provide a reconciliation of Net Debt to Net Capital as a non-U.S. GAAP measure. Net Debt is calculated as interest bearing debt less cash, cash equivalents and short-term investments while Net Capital is calculated as stockholder's equity plus Net Debt. Net Debt to Net Capital measures a company's financial leverage, which gives users an idea of a company's financial structure, or how it is financing its operations, along with insight into its financial strength. We believe that it is meaningful to take into consideration the balance of our cash, cash equivalents and short-term investments when evaluating our leverage. If needed, such assets could be used to reduce our gross debt position.

Table of Contents

	Year Ended December 31, 2016					
	Consolidated	Beauty + Home	Pharma	Food + Beverage	Corporate & Other	Net Interest
Net Sales	$ 2,330,934	$ 1,261,086	$ 741,473	$ 328,375	$ -	$ -
Reported net income	$ 205,604					
Reported income taxes	74,893					
Reported income before income taxes	280,497	100,569	219,039	37,697	(44,214)	(32,594)
Adjustments:						
Transaction costs related to the Mega Airless acquisition	5,640				5,640	
Purchase accounting adjustments related to Mega Airless inventory	2,577	2,151	426			
Adjusted earnings before income taxes	288,714	102,720	219,465	37,697	(38,574)	(32,594)
Interest expense	35,237					35,237
Interest income	(2,643)					(2,643)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	321,308	102,720	219,465	37,697	(38,574)	-
Depreciation and amortization	154,802	84,273	39,776	23,891	6,862	-
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	$ 476,110	$ 186,993	$ 259,241	$ 61,588	$ (31,712)	$ -
Segment income margin		8.0%	29.5%	11.5%		
Adjusted EBITDA margin (Adjusted EBITDA / Reported Net Sales)	20.4%	14.8%	35.0%	18.8%		

	Year Ended December 31, 2015					
	Consolidated	Beauty + Home	Pharma	Food + Beverage	Corporate & Other	Net Interest
Net Sales	$ 2,317,149	$ 1,272,946	$ 712,220	$ 331,983	$ -	$ -
Reported net income	$ 199,295					
Reported income taxes	95,276					
Reported income before income taxes	294,571	98,707	210,509	42,731	(28,357)	(29,019)
Adjustments:						
	(7,427)				(7,427)	

Change in inventory valuation methods (from LIFO to FIFO)						
Transaction costs related to the Mega Airless acquisition	1,892				1,892	
Gain on insurance recovery	(2,900)				(2,900)	
Adjusted earnings before income taxes	286,136	98,707	210,509	42,731	(36,792)	(29,019)
Interest expense	34,615					34,615
Interest income	(5,596)					(5,596)
Adjusted earnings before net interest and taxes (Adjusted EBIT)	315,155	98,707	210,509	42,731	(36,792)	-
Depreciation and amortization	138,893	75,289	36,008	21,347	6,249	-
Adjusted earnings before net interest, taxes, depreciation and amortization (Adjusted EBITDA)	$ 454,048	$ 173,996	$ 246,517	$ 64,078	$ (30,543)	$ -
Segment income margin		7.8%	29.6%	12.9%		
Adjusted EBITDA margin (Adjusted EBITDA / Reported Net Sales)	19.6%	13.7%	34.6%	19.3%		

Table of Contents

Net Debt to Net Capital Reconciliation	December 31, 2016	December 31, 2015
Notes payable	$ 169,213	$ 5,083
Current maturities of long-term obligations, net of unamortized debt issuance costs	4,603	51,884
Long-Term Obligations, net of unamortized debt issuance costs	772,737	760,848
Total Debt	946,553	817,815
Less:		
Cash and equivalents	466,287	489,901
Short-term investments	—	29,816
Net Debt	$ 480,266	$ 298,098
Total Stockholders' Equity	$ 1,174,242	$ 1,149,706
Net Debt	480,266	298,098
Net Capital	$ 1,654,508	$ 1,447,804
Net Debt to Net Capital	29.0%	20.6%

LIQUIDITY AND CAPITAL RESOURCES

Our primary sources of liquidity are cash flows provided by our operations and our revolving credit facility. In 2016, our operations provided cash flows that totaled $327.2 million compared to $324.5 million in 2015 and $316.3 million in 2014. The increase in cash flow from operations in 2016 reflects our growth in earnings before depreciation and amortization partially offset by an increased use of cash for working capital. Comparing 2015 to 2014, the increase is mainly due to profit growth resulting from operational improvements, cost containment efforts and lower input costs.

We used $300.5 million in cash for investing activities during 2016, compared to $176.2 million during 2015 and $159.2 million during 2014. The increase is due primarily to the Mega Airless purchase price of $203.0 million, net of cash received. This increase in cash used for investing activities was partially offset by the maturity of $29.5 million in short-term investments and a decrease in capital expenditures of $20.3 million. Comparing 2015 to 2014, the increase in cash used for investing activities is due to the purchase of $32.8 million in short-term investments. Short term investments reflect funds invested in a time deposit instrument with a two-year maturity. However, during the life of the investment the funds could have been redeemed at any time with a 35-90 day notice. There were no penalties for early redemption. This increase in cash used for short-term investments was partially offset by a decrease in capital expenditures of $12.6 million. We estimate that we will spend approximately $160 million (assuming current exchange rates) on capital expenditures in 2017.

Our net cash used for financing activities in 2016 was $31.6 million compared to $33.1 million in 2015 and $20.7 million in 2014. In 2016, the decrease in cash used for financing activities was primarily due to an increase in our borrowings which was used in part to fund a $117.5 million increase in shares repurchased and retired. During 2015, we repurchased $13.9 million shares for retirement.

Cash and equivalents decreased $23.6 million to $466.3 million at the end of 2016 from $489.9 million at the end of 2015. Total short-term and long-term interest bearing debt increased to $946.6 million at the end of 2016 from $817.8 million at the end of 2015. The ratio of our Net Debt (interest bearing debt less cash and cash equivalents) to Net

Capital (Stockholders' Equity plus Net Debt) increased to 29.0% at the end of 2016 compared to 20.6% as of December 31, 2015.

The Company maintains a revolving credit facility that provides for unsecured financing of up to $300 million. Each borrowing under this credit facility will bear interest at rates based on LIBOR, prime rates or other similar rates, in each case plus an applicable margin. A facility fee on the total amount of the facility is also payable quarterly, regardless of usage. The applicable margins for borrowings under the credit facility and the facility fee percentage may change from time to time depending on changes in Aptar's consolidated leverage ratio. The facility matures on December 16, 2019. The outstanding balance under the credit facility was $166.0 million at December 31, 2016 and is reported as notes payable in the current liabilities section of the Consolidated Balance Sheets. At December 31, 2015, there was no outstanding balance under the credit facility. We incurred approximately $2.0 million and $0.9 million in interest and fees related to this credit facility during 2016 and 2015, respectively.

Table of Contents

Our revolving credit facility and certain long-term obligations require us to satisfy certain financial and other covenants including:

	Requirement	Level at December 31, 2016
Consolidated Leverage Ratio (a)	Maximum of 3.50 to 1.00	1.17 to 1.00
Consolidated Interest Coverage Ratio (a)	Minimum of 3.00 to 1.00	13.35 to 1.00

(a) Definitions of ratios are included as part of the revolving credit facility agreement.

Based upon the above consolidated leverage ratio covenant, we would have the ability to borrow approximately an additional $1.1 billion before the 3.50 to 1.00 ratio requirement would be exceeded.

Our foreign operations have historically met cash requirements with the use of internally generated cash or borrowings. These foreign subsidiaries have financing arrangements with several foreign banks to fund operations located outside the U.S., but the majority of these arrangements are uncommitted. Cash generated by foreign operations has generally been reinvested locally. The majority of our $466.3 million in cash and equivalents is located outside of the U.S. We manage our global cash requirements considering (i) available funds among the many subsidiaries through which we conduct business, (ii) the geographic location of our liquidity needs, and (iii) the cost to access international cash balances. The Company is planning on repatriating approximately $250 million to the U.S. in 2017 to reduce existing debt levels and help fund planned stock repurchases. Under current U.S. tax rules, the Company does not expect any significant tax consequences from the repatriation due to a strengthening U.S. dollar in relation to the Euro and available tax credits.

We believe we are in a strong financial position and have the financial resources to meet our business requirements in the foreseeable future. We have historically used cash flow from operations, our revolving credit facility, stock option exercises and debt, as needed, as our primary sources of liquidity. Our primary uses of liquidity are to invest in equipment and facilities that are necessary to support our growth and to make acquisitions that will contribute to the achievement of our strategic objectives. Other uses of liquidity include paying dividends to stockholders and repurchasing shares of our common stock. In the event that customer demand would decrease significantly for a prolonged period of time and negatively impact cash flow from operations, we would have the ability to restrict and significantly reduce capital expenditure levels, as well as evaluate our acquisition strategy and dividend and share repurchase programs. A prolonged and significant reduction in capital expenditure levels could increase future repairs and maintenance costs as well as have a negative impact on operating margins if we were unable to invest in new innovative products.

OFF BALANCE SHEET ARRANGEMENTS

We lease certain warehouse, plant and office facilities as well as certain equipment under noncancelable operating leases expiring at various dates through the year 2027. Most of the operating leases contain renewal options and certain equipment leases include options to purchase during or at the end of the lease term. Other than operating lease obligations, we do not have any off balance sheet arrangements. See the following section “Overview of Contractual Obligations” for future payments relating to operating leases.

Table of Contents

OVERVIEW OF CONTRACTUAL OBLIGATIONS

Below is a table of our outstanding contractual obligations and future payments as of December 31, 2016:

Payment Due by Period	Total	2017	2018-2019	2020-2021	2022 and After
Long-term debt (1)	$ 777,247	$ 3,800	$ 83,781	$ 87,407	$ 602,259
Capital lease obligations (1)	1,542	803	736	3	—
Operating leases	76,885	22,066	25,798	13,191	15,830
Notes payable (2)	169,213	169,213	—	—	—
Purchase obligations (3)	86,154	44,727	41,285	142	—
Interest obligations (4)	187,434	29,999	52,852	45,154	59,429
Required minimum pension contribution (5)	—	—	—	—	—
Other liabilities reflected on the balance sheet under U.S. GAAP (6)	—	—	—	—	—
Total Contractual Obligations	$ 1,298,475	$ 270,608	$ 204,452	$ 145,897	$ 677,518

(1) The future payments listed above for long-term debt repayments and capital lease obligations reflect only principal payments.

(2) Notes payable mainly includes local short-term borrowings. The future payments listed above assume that no additional amounts will be drawn under the credit facility.

(3) Purchase obligations are agreements to purchase goods or services that are enforceable and legally binding on the Company that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum, or variable price provisions; and the approximate timing of the transactions.

(4) Approximately 0.12% of our total interest bearing long term debt has variable interest rates. Using our long term variable rate debt outstanding as of December 31, 2016 of approximately $0.9 million at an average rate of approximately 9.24%, we included approximately $0.1 million of variable interest rate obligations in 2016. No variable interest rate obligations were included in subsequent years.

(5) This line represents the required minimum pension contribution obligation for the Company's U.S. plans. At this time, the Company is not required to make a contribution. The Company also makes contributions to its foreign pension plans but amounts are expected to be discretionary in 2017 and future years. Therefore, amounts related to these plans are not included in the preceding table.

(6) This line represents the current portion of the liability for uncertain tax positions. Aside from deferred income taxes, we have approximately $99.9 million of other deferred long term liabilities on the balance sheet, which consist primarily of retirement plan obligations as described in Note 8 to the Consolidated Financial Statements. The Company is not able to reasonably estimate the timing of the long term payments or the amount by which the liability will increase or decrease over time. Therefore, the long term portion of the liability is excluded from the preceding table.

RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

We have reviewed the recently issued accounting standards updates to the Financial Accounting Standards Board's ("FASB's") Accounting Standards Codification that have future effective dates. Standards which are effective for 2016 are discussed in Note 1 of the Notes to Consolidated Financial Statements.

In May 2014, the FASB amended the guidance for recognition of revenue from customer contracts. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or

services to customers in the amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB decided to defer the effective date by one year to December 15, 2017 for annual reporting periods beginning after that date. The FASB also decided to allow early adoption of the standard, but not before the original effective date of December 15, 2016. Subsequent to the initial standards, the FASB has also issued several Accounting Standards Updates ("ASUs") to clarify specific revenue recognition topics. We are currently evaluating the impact the adoption of this standard will have on our consolidated financial statements. The majority of our revenues are derived from product sales and tooling sales and we are in the process of assessing the impact of the new guidance on these revenue streams. We are also evaluating our license, exclusivity and royalty arrangements which will need to be reviewed individually to ensure proper accounting under the new standard. Based on our initial reviews, we currently anticipate adopting the full retrospective transition method for implementing this guidance on the standard's effective date.

In July 2015, the FASB issued new guidance for simplifying the measurement of inventory. The core principle of the guidance is that an entity should measure inventory at the lower of cost and net realizable value. This standard is effective for annual reporting periods beginning after December 15, 2016. The Company does not believe that this new guidance will have a material impact on its consolidated financial statements.

Table of Contents

In January 2016, the FASB issued new guidance that generally requires companies to measure investments in other entities, except those accounted for under the equity method, at fair value and recognize any changes in fair value in net income. The new standard is effective for fiscal years and interim periods beginning after December 15, 2017. The Company does not believe that this new guidance will have a material impact on its consolidated financial statements.

In February 2016, the FASB issued new guidance to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. The new standard is effective for fiscal years and interim periods beginning after December 15, 2018. The Company is currently evaluating the impact of adopting this guidance.

In March 2016, the FASB issued guidance that eliminates the requirement that an investor retrospectively apply equity method accounting when an investment that it had accounted for by another method initially qualifies for the equity method. The guidance requires that an equity method investor add the cost of acquiring the additional interest in the investee to the current basis of the investor's previously held interest and adopt the equity method of accounting as of the date the investment becomes qualified for equity method accounting. The new standard is effective for fiscal years and interim periods beginning after December 15, 2016. The Company is currently evaluating the impact of adopting this guidance.

In March 2016, the FASB issued guidance that changes the accounting for certain aspects of share-based payments to employees. The guidance requires the recognition of the income tax effects of awards in the income statement when the awards vest or are settled, thus eliminating additional paid in capital pools. The guidance also allows for the employer to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting. In addition, the guidance allows for a policy election to account for forfeitures as they occur rather than on an estimated basis. The new standard is effective for fiscal years and interim periods beginning after December 15, 2016. The impact of adopting this guidance will be dependent on the difference between the actual tax on the share-based award and the book value tax along with the number of awards exercised within a given period. Gains for 2016 and 2015 would have been $8.2 million and $8.4 million, respectively, and would have been included in tax expense.

In June 2016, the FASB issued guidance that changes the accounting for measurement of credit losses on financial instruments. The guidance replaces the incurred loss impairment methodology in current U.S. GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information when recording credit loss estimates. The new standard is effective for fiscal years and interim periods beginning after December 15, 2019. The Company is currently evaluating the impact of adopting this guidance.

In August 2016, the FASB issued guidance to increase comparability among organizations on how certain cash receipts and cash payments are presented and classified in the Statement of Cash Flows. The new standard is effective for fiscal years and interim periods beginning after December 15, 2017. The Company is currently evaluating the impact of adopting this guidance.

In January 2017, the FASB issued guidance to simplify how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. As a result, impairment charges will be required for the amount by which the reporting units carrying amount exceeds its fair value up to the amount of its allocated goodwill. The new standard is effective for the annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The Company does not believe that this new guidance will have a material impact on its consolidated financial statements.

Other accounting standards that have been issued by the FASB or other standards setting bodies that do not require adoption until a future date are not expected to have a material impact on our consolidated financial statements upon adoption.

CRITICAL ACCOUNTING ESTIMATES

The preparation of the financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. We continually evaluate our estimates, including those related to bad debts, inventories, intangible assets, income taxes, pensions and contingencies. We base our estimates on historical experience and on a variety of other assumptions believed to be reasonable in order to make judgments about the carrying values of assets and liabilities. Actual results may differ from these estimates under different assumptions or conditions. We believe the following critical accounting policies affect our more significant judgments and estimates used in preparation of our Consolidated Financial Statements. Management has discussed the development and selection of these critical accounting estimates with the audit committee of our Board of Directors and the audit committee has reviewed our disclosure relating to it in this Management's Discussion and Analysis of Consolidated Results of Operations and Financial Condition.

Table of Contents

IMPAIRMENT OF GOODWILL

In accordance with current accounting standards, goodwill has an indefinite life and is not amortized. We evaluate our goodwill for impairment at the reporting unit level on an annual basis, or whenever indicators of impairment exist. We have determined that our Beauty + Home and Food + Beverage business segments represent reporting units and the Injectables division of our Pharma segment qualifies as a separate reporting unit for goodwill impairment testing. As of December 31, 2016, we have $407.5 million of goodwill, which is allocated as follows: $87.2 million is allocated to the Pharma reporting unit, $92.8 million is allocated to the Injectables reporting unit, $211.4 million is allocated to the Beauty + Home reporting unit and $16.1 million is allocated to the Food + Beverage reporting unit.

We believe that the accounting estimate related to determining the fair value of our reporting units is a critical accounting estimate because: (1) it is highly susceptible to change from period to period because it requires Company management to make assumptions about the future cash flows for each reporting unit over several years, and (2) the impact that recognizing an impairment would have on the assets reported on our balance sheet as well as our results of operations could be material. Management's assumptions about future cash flows for the reporting units require significant judgment and actual cash flows in the future may differ significantly from those forecasted today. The estimate for future cash flows and its impact on the impairment testing of goodwill is a critical accounting estimate.

For our goodwill impairment assessment we first consider qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not (greater than 50 percent chance) that the fair value of a reporting unit is less than its carrying amount (the Step 0 method). Such qualitative factors may include the following: macroeconomic conditions; industry and market considerations; cost factors; overall financial performance; and other relevant entity specific events.

In the absence of sufficient qualitative factors, goodwill impairment is determined utilizing a two step quantitative process. Due to the passage of time since the last quantitative assessment, management determined it appropriate to calculate the fair value of the reporting units and compare with their associated carrying amounts (the "step one" approach) for the year ended December 31, 2016. Based on this quantitative analysis, all of the reporting units substantially exceeded their carrying values.

We believe our assumptions used in discounting future cash flows are appropriate. Any increase in estimated cash flows would have no impact on the reported carrying amount of goodwill. However, if our current estimates of cash flows for the Injectables reporting unit had been 55% lower, the fair value of the reporting unit would have been lower than the carrying value thus requiring us determine the "implied value" of goodwill. The excess of the approximately $92.8 million in carrying value of goodwill over the "implied value" of goodwill would need to be written down for impairment. A full $92.8 million impairment loss would have reduced Total Assets as of December 31, 2016 by approximately 4% and would have reduced Income before Income Taxes in 2016 by approximately 33%.

If we had been required to recognize an impairment loss of the full $92.8 million, it would likely not have significantly affected our liquidity and capital resources because, in spite of any such impairment loss, we would have been within the terms of our debt covenants.

ALLOWANCE FOR DOUBTFUL ACCOUNTS

We record an allowance for doubtful accounts as an estimate of the inability of our customers to make their required payments. We determine the amount of our allowance for doubtful accounts by looking at a variety of factors. First, we examine an aging report of the accounts receivable in each entity within the Company. The aging report lists past due amounts according to invoice terms. In addition, we consider historical experience with the customers, the current economic environment, the credit rating of the customers and general overall market conditions. In some countries we

maintain credit insurance, which can be used in certain cases of non payment.

We believe that the accounting estimate related to the allowance for doubtful accounts is a critical accounting estimate because: (1) it requires management to make assumptions about the ability to collect amounts owed from customers in the future and (2) changes to these assumptions or estimates could have a material impact on our results of operations. The estimate for the allowance for doubtful accounts is a critical accounting estimate for all of our segments.

When we determine that a customer is unlikely to pay, we record a charge to bad debt expense in the income statement and an increase to the allowance for doubtful accounts. When it becomes certain the customer cannot pay (typically driven by the customer filing for bankruptcy) we write off the receivable by removing the accounts receivable amount and reducing the allowance for doubtful accounts accordingly. In 2016, we increased the allowance for doubtful accounts by approximately $561 thousand and we wrote off doubtful accounts of $282 thousand. Please refer to Schedule II—Valuation and Qualifying Accounts for activity in the allowance for doubtful accounts over the past three years.

Table of Contents

We had approximately $433.1 million in net accounts receivable at December 31, 2016. At December 31, 2016, we had approximately $3.0 million recorded in the allowance for doubtful accounts to cover potential future customer non payments net of any credit insurance reimbursement we would potentially recover. We believe our allowance for doubtful accounts is adequate to cover future non payments of our customers. However, if economic conditions deteriorate significantly or one of our large customers was to declare bankruptcy, a larger allowance for doubtful accounts might be necessary. It is extremely difficult to estimate how much of an additional reserve would be necessary, but we expect the largest potential customer balance at any one time would not exceed $20.3 million. An additional loss of $20.3 million would reduce our Total Assets as of December 31, 2016 by approximately 0.8% and would have reduced Income before Income Taxes by approximately 7.2%.

If we had been required to recognize an additional $20.3 million in bad debt expense, it would likely not have significantly affected our liquidity and capital resources because, in spite of any such additional expense, we would still have been within the terms of our debt covenants.

VALUATION OF PENSION BENEFITS

The benefit obligations and net periodic pension cost associated with our domestic and foreign noncontributory pension plans are determined using actuarial assumptions. Such assumptions include discount rates to reflect the time value of money, rate of employee compensation increases, demographic assumptions to determine the probability and timing of benefit payments, and the long term rate of return on plan assets. The actuarial assumptions are based upon management’s best estimates, after consulting with outside investment advisors and actuaries. Because assumptions and estimates are used, actual results could differ from expected results.

The discount rate is utilized principally in calculating our pension obligations, which are represented by the Accumulated Benefit Obligation (ABO) and the Projected Benefit Obligation (PBO), and in calculating net periodic benefit cost. In establishing the discount rate for our foreign plans, we review a number of relevant interest rates including Aa corporate bond yields. In establishing the discount rate for our domestic plans, we match the hypothetical duration of our plans, using a weighted average duration that is based upon projected cash payments, to a simulated bond portfolio (Citigroup Pension Index Curve). At December 31, 2016, the discount rates for our domestic and foreign plans were 4.05% and 1.65%, respectively.

We believe that the accounting estimates related to determining the valuation of pension benefits are critical accounting estimates because: (1) changes in them can materially affect net income and (2) we are required to establish the discount rate and the expected return on fund assets, which are highly uncertain and require judgment. The estimates for the valuation of pension benefits are critical accounting estimates for all of our segments.

To the extent the discount rates increase (or decrease), our PBO and net periodic benefit cost will decrease (or increase) accordingly. The estimated effect of a 1% decrease in each discount rate would be a $45.9 million increase in the PBO ($33.7 million for the domestic plans and $12.2 million for the foreign plans) and an $8.7 million increase in net periodic benefit cost ($7.5 million for the domestic plans and $1.2 million for the foreign plans). To the extent the PBO increases, the after tax effect of such increase could reduce Other Comprehensive Income and Stockholders’ Equity. The estimated effect of a 1% increase in each discount rate would be a $35.7 million decrease in the PBO ($26.0 million for the domestic plans and $9.7 million for the foreign plans) and a $6.7 million decrease in net periodic benefit cost ($5.7 million for the domestic plans and $1.0 million for the foreign plans). A decrease of this magnitude in the PBO would eliminate the current year reduction recognized in Other Comprehensive Income and Stockholders’ Equity as related to pension assumptions.

The assumed expected long term rate of return on assets is the average rate of earnings expected on the funds invested to provide for the benefits included in the PBO. Of domestic plan assets, approximately 48% was invested in equities,

28% was invested in fixed income securities, 11% was invested in hedge funds, 7% was invested in infrastructure securities, 5% was invested in real estate securities and 1% was invested in money market funds, at December 31, 2016. Of foreign plan assets, approximately 89% was invested in investment funds, 4% was invested in equity securities, 3% was invested in corporate securities, 1% was invested in fixed income securities and 3% was invested in cash at December 31, 2016.

The expected long term rate of return assumptions are determined based on our investment policy combined with expected risk premiums of equities and fixed income securities over the underlying risk free rate. This rate is utilized principally in calculating the expected return on the plan assets component of the net periodic benefit cost. To the extent the actual rate of return on assets realized over the course of a year is greater or less than the assumed rate, that year's net periodic benefit cost is not affected. Rather, this gain (or loss) reduces (or increases) future net periodic benefit cost over a period of approximately 15 to 20 years. To the extent the expected long term rate of return on assets increases (or decreases), our net periodic benefit cost will decrease (or increase) accordingly. The estimated effect of a 1% decrease (or increase) in each expected long term rate of return on assets would be a $1.8 million increase (or decrease) in net periodic benefit cost.

The average rate of compensation increase is utilized principally in calculating the PBO and the net periodic benefit cost. The estimated effect of a 0.5% decrease in each rate of expected compensation increase would be a $6.5 million decrease in the PBO ($1.6 million for the domestic plans and $4.9 million for the foreign plans) and a $1.1 million decrease to the net periodic benefit cost. The estimated effect of a 0.5% increase in each rate of expected compensation increase would be a $7.0 million increase in the PBO ($1.6 million for the domestic plans and $5.4 million for the foreign plans) and a $1.1 million increase to the net periodic benefit cost.

Our primary pension related assumptions as of December 31, 2016, 2015 and 2014 were as follows:

Actuarial Assumptions as of December 31,	2016	2015	2014
Discount rate:			
Domestic plans	4.05 %	4.24 %	3.83 %
Foreign plans	1.65 %	2.10 %	1.90 %
Expected long term rate of return on plan assets:			
Domestic plans	7.00 %	7.00 %	7.00 %
Foreign plans	3.66 %	3.66 %	3.54 %
Rate of compensation increase:			
Domestic plans	4.00 %	4.00 %	4.00 %
Foreign plans	3.00 %	3.00 %	3.00 %

In order to determine the 2017 net periodic benefit cost, the Company expects to use the discount rates, expected long term rates of return on plan assets and rates of compensation increase assumptions as of December 31, 2016. The estimated impact of the changes to the assumptions as noted in the table above on our 2017 net periodic benefit cost is expected to be an increase of approximately $2.0 million.

SHARE BASED COMPENSATION

The Company uses the Black Scholes option valuation model to value stock options, which requires the input of subjective assumptions. These assumptions include the length of time employees will retain their vested stock options before exercising them (“expected term”), the estimated volatility of the Company’s stock price, risk free interest rate, the expected dividend yield and stock price. The expected term of the options is based on historical experience of similar awards, giving consideration to the contractual terms, vesting schedules and expectations of future employee behavior. The expected term determines the period for which the risk free interest rate and volatility must be applied. The risk free interest rate is based on the expected U.S. Treasury rate over the expected term. Expected stock price volatility is based on historical volatility of the Company’s stock price. Dividend yield is management’s long term estimate of annual dividends to be paid as a percentage of share price.

For 2016, expense related to share based compensation for employee stock option plans was $16.9 million. Future changes in the subjective assumptions used in the Black Scholes option valuation model or estimates associated with forfeitures could impact our share based compensation expense. For example, a one year reduction in the expected term of the options would decrease the Black Scholes valuation and reduce share based compensation by approximately $0.5 million. In comparison, a one year increase in the expected term of the option would increase the Black Scholes valuation and increase share based compensation by approximately $0.4 million. In addition, changes in the share price at the date of the grant would impact our share based compensation expense. For example, a $5 decrease in the stock price would decrease the Black Scholes valuation and reduce share based compensation by approximately $0.6 million. In comparison, a $5 increase in the share price would increase the Black Scholes valuation and increase share based

compensation by approximately $0.6 million.

OPERATIONS OUTLOOK

Looking to the first quarter of 2017, we will continue to face some degree of global economic and market uncertainties, but we will remain focused on our customers and end consumers in order to drive new technologies to market. We are excited by the opportunities to develop new business, execute on customer projects and focus on growth. In particular, we see opportunities to further penetrate and grow in relatively newer categories such as color cosmetics, sampling and promotion, facial skin care, pain management, ophthalmics, dermal treatments and infant nutrition, among others. We will continue to seek new business and invest in profitable growth opportunities while, at the same time, manage our cost structure. We have an excellent balance sheet that allows us to pursue our balanced capital allocation strategy.

Aptar expects earnings per share for the first quarter, excluding any potential impacts of the timing of costs incurred and any related insurance reimbursements associated with the Aptar Annecy facility fire and the potential impact from our anticipated adoption of the new accounting standard for share-based compensation, which amounts cannot be reasonably estimated, to be in the range of $0.72 to $0.77 compared to $0.67 per share reported in the prior year.

Table of Contents

FORWARD LOOKING STATEMENTS

Certain statements in Management's Discussion and Analysis and other sections of this Form 10 K are forward looking and involve a number of risks and uncertainties, including certain statements set forth in the Liquidity and Capital Resources, Off Balance Sheet Arrangements, and Operations Outlook sections of this Form 10 K. Words such as "expects," "anticipates," "believes," "estimates," "future" and other similar expressions or future or conditional verbs such as "will," "should," "would" and "could" are intended to identify such forward looking statements. Forward looking statements made pursuant to the safe harbor provisions of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and are based on our beliefs as well as assumptions made by and information currently available to us. Accordingly, our actual results may differ materially from those expressed or implied in such forward looking statements due to known or unknown risks and uncertainties that exist in our operations and business environment, including but not limited to:

- the possible impact and consequences of the fire at the Company's facility in Annecy, France;
- economic conditions worldwide, including the United Kingdom's vote to withdraw from the European Union and other potential deflationary conditions in regions we rely on for growth;
- political conditions worldwide;
- significant fluctuations in foreign currency exchange rates;
- changes in customer and/or consumer spending levels;
- financial conditions of customers and suppliers;
- consolidations within our customer or supplier base;
- loss of one or more key accounts;
- fluctuations in the cost of raw materials, components and other input costs (particularly resin, metal, anodization costs and transportation and energy costs);
- the availability of raw materials and components (particularly from sole sourced suppliers) as well as the financial viability of these suppliers;
- our ability to successfully implement facility expansions and new facility projects;
- our ability to offset inflationary impacts with cost containment, productivity initiatives or price increases;
- changes in capital availability or cost, including interest rate fluctuations;
- volatility of global credit markets;
- the timing and magnitude of capital expenditures;
- our ability to identify potential new acquisitions and to successfully acquire and integrate such operations or products;
- direct or indirect consequences of acts of war, terrorism or social unrest;
- cybersecurity threats that could impact our networks and reporting systems;
- the impact of natural disasters and other weather related occurrences;
- fiscal and monetary policies and other regulations, including changes in worldwide tax rates;
- changes or difficulties in complying with government regulation;
- changing regulations or market conditions regarding environmental sustainability;
- work stoppages due to labor disputes;
- competition, including technological advances;
- our ability to protect and defend our intellectual property rights, as well as litigation involving intellectual property rights;
- the outcome of any legal proceeding that has been or may be instituted against us and others;
- our ability to meet future cash flow estimates to support our goodwill impairment testing;
- the demand for existing and new products;
- the success of our customers' products, particularly in the pharmaceutical industry;
- our ability to manage worldwide customer launches of complex technical products, in particular in developing markets;

- difficulties in product development and uncertainties related to the timing or outcome of product development;
- significant product liability claims; and
- other risks associated with our operations.

Although we believe that our forward looking statements are based on reasonable assumptions, there can be no assurance that actual results, performance or achievements will not differ materially from any future results, performance or achievements expressed or implied by such forward looking statements. Readers are cautioned not to place undue reliance on forward looking statements. We undertake no obligation to update publicly any forward looking statements, whether as a result of new information, future events or otherwise, except as required by law. Please refer to Item 1A (“Risk Factors”) of Part I included in this Form 10 K for additional risk factors affecting the Company.

Table of Contents

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

MARKET RISKS

A significant number of our operations are located outside of the United States. Because of this, movements in exchange rates may have a significant impact on the translation of the financial condition and results of operations of our subsidiaries. Our primary foreign exchange exposure is to the Euro, but we also have foreign exchange exposure to the Chinese Yuan, Brazilian Real, Mexican Peso, Swiss Franc and other Asian, European and South American currencies. A strengthening U.S. dollar relative to foreign currencies has a dilutive translation effect on our financial condition and results of operations. Conversely, a weakening U.S. dollar relative to foreign currencies has an additive translation effect on our financial condition and results of operations.

Additionally, in some cases, we sell products denominated in a currency different from the currency in which the related costs are incurred. Any changes in exchange rates on such inter country sales may impact our results of operations.

We manage our exposures to foreign exchange principally with forward exchange contracts to hedge certain firm purchase and sales commitments and intercompany cash transactions denominated in foreign currencies.

The table below provides information as of December 31, 2016 about our forward currency exchange contracts. The majority of the contracts expire before the end of the first quarter of 2017.

In thousands Year Ended December 31, 2016 Buy/Sell	Contract Amount	Average Contractual Exchange Rate	Min / Max Notional Volumes
Swiss Franc / Euro	$ 57,315	0.9148	57,315-61,125
Euro / Us Dollar	17,054	1.0505	7,186-23,386
Euro / Brazilian Real	12,058	3.7252	12,058-12,113
Euro / Indian Rupee	9,889	81.3868	9,843-9,889
Euro / Colombian Peso	3,141	3,860.0620	3,141-3,141
Czech Koruna / Euro	2,950	0.0371	2,844-2,950
Colombian Peso / Euro	2,007	0.0003	1,361-2,007
Us Dollar / Euro	1,860	0.9338	1,860-12,999
Euro / Indonesian Rupiah	1,749	15,725.0000	1,749-1,749
British Pound / Euro	1,421	1.1844	828-1,421
Euro / Thai Baht	1,004	39.8754	1,004-1,004
Euro / Mexican Peso	880	20.7148	880-1,071
Other	1,262		
Total	$ 112,590		

As of December 31, 2016, the Company has recorded the fair value of foreign currency forward exchange contracts of $1.6 million in prepayments and other and $2.9 million in accounts payable and accrued liabilities in the Consolidated Balance Sheets.

Table of Contents

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

AptarGroup, Inc.

CONSOLIDATED STATEMENTS OF INCOME

In thousands, except per share amounts

Years Ended December 31,	2016	2015	2014
Net Sales	$ 2,330,934	$ 2,317,149	$ 2,597,809
Operating Expenses:			
Cost of sales (exclusive of depreciation and amortization shown below)	1,498,070	1,502,650	1,755,266
Selling, research & development and administrative	367,562	351,461	383,909
Depreciation and amortization	154,802	138,893	152,218
	2,020,434	1,993,004	2,291,393
Operating Income	310,500	324,145	306,416
Other (Expense) Income:			
Interest expense	(35,237)	(34,615)	(21,029)
Interest income	2,643	5,596	4,797
Equity in results of affiliates	(191)	(718)	(1,917)
Miscellaneous, net	2,782	163	(1,966)
	(30,003)	(29,574)	(20,115)
Income before Income Taxes	280,497	294,571	286,301
Provision for Income Taxes	74,893	95,276	94,677
Net Income	$ 205,604	$ 199,295	$ 191,624
Net (Income) Loss Attributable to Noncontrolling Interests	(14)	53	34
Net Income Attributable to AptarGroup, Inc.	$ 205,590	$ 199,348	$ 191,658
Net Income Attributable to AptarGroup, Inc. per Common Share:			
Basic	$ 3.27	$ 3.19	$ 2.95
Diluted	$ 3.17	$ 3.09	$ 2.85

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

In thousands

Years Ended December 31,	2016	2015	2014
Net Income	$ 205,604	$ 199,295	$ 191,624
Other Comprehensive Income (Loss):			
Foreign currency translation adjustments	(53,183)	(163,887)	(192,824)
Changes in treasury locks, net of tax	26	25	24
Defined benefit pension plan, net of tax			
Actuarial (loss) / gain, net of tax	(7,151)	7,253	(29,842)
Prior service cost, net of tax	(466)	(538)	—
Amortization of prior service cost included in net income, net of tax	248	168	206
Amortization of net loss included in net income, net of tax	3,144	4,664	2,632
Total defined benefit pension plan, net of tax	(4,225)	11,547	(27,004)
Total other comprehensive loss	(57,382)	(152,315)	(219,804)
Comprehensive Income (Loss)	148,222	46,980	(28,180)
Comprehensive Loss Attributable to Noncontrolling Interests	6	66	42
Comprehensive Income (Loss) Attributable to AptarGroup, Inc.	$ 148,228	$ 47,046	$ (28,138)

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

CONSOLIDATED BALANCE SHEETS

In thousands

December 31,	2016	2015
Assets		
Current Assets:		
Cash and equivalents	$ 466,287	$ 489,901
Short-term investments	—	29,816
	466,287	519,717
Accounts and notes receivable, less allowance for doubtful accounts of $2,989 in 2016 and $2,710 in 2015	433,127	391,571
Inventories	296,914	294,912
Prepayments and other	73,842	88,794
	1,270,170	1,294,994
Property, Plant and Equipment:		
Buildings and improvements	368,260	343,698
Machinery and equipment	1,938,352	1,866,627
	2,306,612	2,210,325
Less: Accumulated depreciation	(1,545,384)	(1,465,873)
	761,228	744,452
Land	23,093	20,931
	784,321	765,383
Other Assets:		
Investments in affiliates	4,241	4,590
Goodwill	407,522	310,240
Intangible assets	94,489	31,529
Miscellaneous	46,042	30,309
	552,294	376,668
Total Assets	$ 2,606,785	$ 2,437,045

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

CONSOLIDATED BALANCE SHEETS

In thousands, except share and per share amounts

December 31,	2016	2015
Liabilities and Stockholders' Equity		
Current Liabilities:		
Notes payable	$ 169,213	$ 5,083
Current maturities of long-term obligations, net of unamortized debt issuance costs	4,603	51,884
Accounts payable and accrued liabilities	369,139	354,928
	542,955	411,895
Long-Term Obligations, net of unamortized debt issuance costs	772,737	760,848
Deferred Liabilities and Other:		
Deferred income taxes	16,803	20,486
Retirement and deferred compensation plans	94,545	87,763
Deferred and other non-current liabilities	5,503	6,347
Commitments and contingencies	—	—
	116,851	114,596
Stockholders' Equity:		
AptarGroup, Inc. stockholders' equity		
Common stock, $.01 par value, 199 million shares authorized, 66.0 and 66.7 million shares issued as of December 31, 2016 and 2015, respectively	660	667
Capital in excess of par value	546,682	495,462
Retained earnings	1,197,234	1,185,681
Accumulated other comprehensive (loss)	(319,709)	(262,347)
Less: Treasury stock at cost, 3.9 and 4.2 million shares as of December 31, 2016 and 2015, respectively	(250,917)	(270,052)
Total AptarGroup, Inc. Stockholders' Equity	1,173,950	1,149,411
Noncontrolling interests in subsidiaries	292	295
Total Stockholders' Equity	1,174,242	1,149,706
Total Liabilities and Stockholders' Equity	$ 2,606,785	$ 2,437,045

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

CONSOLIDATED STATEMENTS OF CASH FLOWS

In thousands, brackets denote cash outflows

Years Ended December 31,	2016	2015	2014
Cash Flows from Operating Activities:			
Net income	$ 205,604	$ 199,295	$ 191,624
Adjustments to reconcile net income to net cash provided by operations:			
Depreciation	145,485	134,647	146,893
Amortization	9,317	4,246	5,325
Stock based compensation	19,824	20,612	19,749
Provision for (recovery of) doubtful accounts	561	(813)	741
Gain on sale of investment in unconsolidated affiliate	(2,013)	—	—
Deferred income taxes	(11,112)	(7,141)	(18,973)
Defined benefit plan expense	16,786	20,685	16,699
Equity in results of affiliates	191	718	1,917
Changes in balance sheet items, excluding effects from foreign currency adjustments:			
Accounts and other receivables	(41,721)	(27,759)	(16,322)
Inventories	(834)	(18,925)	5,205
Prepaid and other current assets	(5,968)	(6,982)	(6,496)
Accounts payable and accrued liabilities	(12,474)	39,330	(24,319)
Income taxes payable	15,056	3,397	(10,949)
Retirement and deferred compensation plan liabilities	(7,486)	(29,576)	(370)
Other changes, net	(4,023)	(7,219)	5,605
Net Cash Provided by Operations	327,193	324,515	316,329
Cash Flows from Investing Activities:			
Capital expenditures	(128,986)	(149,323)	(161,940)
Proceeds from sale of property and equipment	1,693	827	5,106
Insurance proceeds	986	3,739	—
Purchase of short-term investments	—	(32,769)	—
Maturity of short-term investments	29,485	—	—
Acquisition of business, net of cash acquired	(202,985)	—	—
Acquisition of intangible assets	(2,492)	—	(9)
Proceeds from sale of investment in unconsolidated affiliate	1,204	—	—
Notes receivable, net	593	1,296	(2,357)
Net Cash Used by Investing Activities	(300,502)	(176,230)	(159,200)
Cash Flows from Financing Activities:			
Proceeds from notes payable	163,148	—	95,816
Repayments of notes payable	—	(227,362)	—
Proceeds from long-term obligations	5,963	225,236	253,520
Repayments of long-term obligations	(55,314)	(16,981)	(778)

Dividends paid	(76,659)	(71,247)	(71,072)
Credit facility costs	—	(1,216)	(720)
Proceeds from stock option exercises	53,453	64,003	36,015
Purchase of treasury stock	—	—	(340,517)
Common stock repurchased and retired	(131,371)	(13,887)	—
Excess tax benefit from exercise of stock options	9,171	8,388	6,998
Net Cash Used by Financing Activities	(31,609)	(33,066)	(20,738)
Effect of Exchange Rate Changes on Cash	(18,696)	(25,080)	(46,490)
Net (Decrease) Increase in Cash and Equivalents	(23,614)	90,139	89,901
Cash and Equivalents at Beginning of Period	489,901	399,762	309,861
Cash and Equivalents at End of Period	$ 466,287	$ 489,901	$ 399,762
Supplemental Cash Flow Disclosure:			
Interest paid	$ 36,265	$ 31,664	$ 20,352
Income taxes paid	82,201	79,502	94,578

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

Years Ended December 31, 2016, 2015 and 2014

In thousands

	AptarGroup, Inc. Stockholders' Equity						
	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Common Stock Par Value	Treasury Stock	Capital in Excess of Par Value	Non-Controlling Interest	Total Equity
Balance - December 31, 2013	$ 1,619,419	$ 109,751	$ 853	$ (738,558)	$ 488,292	$ 551	$ 1,480,308
Net income	191,658	—	—	—	—	(34)	191,624
Foreign currency translation adjustments	—	(192,816)	—	—	—	(8)	(192,824)
Changes in unrecognized pension gains/losses and related amortization, net of tax	—	(27,004)	—	—	—	—	(27,004)
Changes in treasury locks, net of tax	—	24	—	—	—	—	24
Stock option exercises & restricted stock vestings	—	—	9	2,958	60,410	—	63,377
Cash dividends declared on common stock	(71,072)	—	—	—	—	—	(71,072)
Treasury stock purchased	—	—	—	(290,517)	(50,000)	—	(340,517)
	$ 1,740,005	$ (110,045)	$ 862	$ (1,026,117)	$ 498,702	$ 509	$ 1,103,916

Balance - December 31, 2014							
Net income	199,348	—	—	—	—	(53)	199,295
Foreign currency translation adjustments	—	(163,874)	—	—	—	(13)	(163,887)
Changes in unrecognized pension gains/losses and related amortization, net of tax	—	11,547	—	—	—	—	11,547
Changes in treasury locks, net of tax	—	25	—	—	—	—	25
Stock option exercises & restricted stock vestings	—	—	14	5,447	79,107	—	84,568
Cash dividends declared on common stock	(71,247)	—	—	—	—	—	(71,247)
Treasury stock purchased	—	—	—	(50,000)	50,000	—	—
Treasury stock retired	(669,801)	—	(207)	800,618	(130,610)	—	—
Common stock repurchased and retired	(12,624)	—	(2)	—	(1,261)	—	(13,887)
Non controlling interest repurchased	—	—	—	—	(476)	(148)	(624)
Balance - December 31, 2015	$ 1,185,681	$ (262,347)	$ 667	$ (270,052)	$ 495,462	$ 295	$ 1,149,706
Net income	205,590	—	—	—	—	14	205,604
Foreign currency translation adjustments		(53,163)	—	—	—	(20)	(53,183)
Changes in unrecognized	—	(4,225)	—	—	—	—	(4,225)

pension gains/losses and related amortization, net of tax							
Changes in treasury locks, net of tax	—	26	—	—	—	—	26
Stock option exercises & restricted stock vestings	—	—	10	19,135	65,198	—	84,343
Cash dividends declared on common stock	(76,659)	—	—	—	—	—	(76,659)
Common stock repurchased and retired	(117,378)	—	(17)	—	(13,976)	—	(131,371)
Non controlling interest addition	—	—	—	—	(2)	3	1
Balance - December 31, 2016	$ 1,197,234	$ (319,709)	$ 660	$ (250,917)	$ 546,682	$ 292	$ 1,174,242

See accompanying notes to consolidated financial statements.

Table of Contents

AptarGroup, Inc.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollars in Thousands, Except Share and per Share Amounts, or as Otherwise Indicated)

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The accompanying consolidated financial statements include the accounts of AptarGroup, Inc. and our subsidiaries. The terms “AptarGroup”, “Aptar” or “Company” as used herein refer to AptarGroup, Inc. and our subsidiaries. All significant intercompany accounts and transactions have been eliminated. Certain previously reported amounts have been reclassified to conform to the current period presentation.

AptarGroup’s organizational structure consists of three market focused lines of business which are Beauty + Home, Pharma and Food + Beverage. This is a strategic structure which allows us to be more closely aligned with our customers and the markets in which they operate.

CHANGE IN ACCOUNTING PRINCIPLE

During the second quarter of 2015, the Company changed its inventory valuation method for certain operating entities in its North American business to the first-in first-out (FIFO) method from the last-in first-out (LIFO) method. Prior to the change, the Company utilized two methods of inventory costing: LIFO for inventories in these operating entities and FIFO for inventories in other operating entities. The Company believes that the FIFO method is preferable as it better reflects the current value of inventory on the Company's Consolidated Balance Sheet, provides better matching of revenues and expenses, results in uniformity across the Company's global operations with respect to the method of inventory accounting and improves comparability with the Company's peers. The cumulative pre-tax effect of this change is a gain of approximately $7.4 million and was recognized as a decrease to Cost of sales (exclusive of depreciation and amortization). The effect of the change on Net Income Attributable to AptarGroup was approximately $4.8 million, representing approximately $0.08 per diluted share. We have determined that this change is not material to the Company's previously issued financial statements and that the cumulative effect of the change is not material to current operations or to the trend of reported results of operations. Therefore, we conclude it was appropriate to recognize the cumulative effect of the change as an operating item in the current period's Consolidated Statement of Income and not to adopt the change by retrospective application.

ACCOUNTING ESTIMATES

The financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (“U.S. GAAP”). This process requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

CASH MANAGEMENT

The Company considers all investments which are readily convertible to known amounts of cash with an original maturity of three months or less when purchased to be cash equivalents. During 2015, we had short-term investments which reflected funds invested in a time deposit instrument with a two-year maturity. However, during the life of the

investment the funds could have been redeemed at any time with a 35-90 day notice. There were no penalties for early redemption. We did not consider this investment a marketable security as there was no active market for this type of product.

INVENTORIES

Inventories are stated at lower of cost or market. Costs included in inventories are raw materials, direct labor and manufacturing overhead. As discussed above, the Company changed its inventory valuation method for certain operating entities in its North American business to the FIFO method from the LIFO method during the second quarter of 2015 resulting in all entities utilizing the FIFO method at the end of 2015.

INVESTMENTS IN AFFILIATED COMPANIES

The Company accounts for its investments in 20% to 50% owned affiliated companies using the equity method. There were no dividends received from affiliated companies in 2016, 2015 and 2014. During the fourth quarter of 2016, we sold our investment in an injectable drug delivery device company for a $2.0 million gain. The Company accounts for its investments less than 20% on the cost method.

PROPERTY AND DEPRECIATION

Properties are stated at cost. Depreciation is determined on a straight line basis over the estimated useful lives for financial reporting purposes and accelerated methods for income tax reporting. Generally, the estimated useful lives are 10 to 40 years for buildings and improvements and 3 to 15 years for machinery and equipment.

Table of Contents

FINITE LIVED INTANGIBLE ASSETS

Finite lived intangibles, consisting of patents, acquired technology, customer relationships and license agreements acquired in purchase transactions, are capitalized and amortized over their useful lives which range from 3 to 20 years.

GOODWILL

Management believes the excess purchase price over the fair value of the net assets acquired ("goodwill") in purchase transactions has continuing value. Goodwill is not amortized and must be tested annually, or more frequently as circumstances dictate, for impairment. The annual goodwill impairment test may first consider qualitative factors to determine whether it is more likely than not (i.e., greater than 50 percent chance) that the fair value of a reporting unit is less than its book value. This is sometimes referred to as the "step zero" approach and is an optional step in the annual goodwill impairment analysis. Management performed this qualitative assessment as of December 31, 2015 and 2014 for all four of our reporting units and determined that it was more likely than not that the fair value of goodwill attributed to all four of our reporting units was greater than its carrying amount and therefore no impairment of goodwill was required.

In the absence of sufficient qualitative factors, goodwill impairment is determined utilizing a two step quantitative process. Due to the passage of time since the last quantitative assessment, management determined it appropriate to calculate the fair value of the reporting units and compare with their associated carry amounts (the "step one" approach) for the year ended December 31, 2016. Based on this quantitive analysis, we determined the fair value of our reporting units are not less than their carrying value and therefore no impairment of goodwill is required.

IMPAIRMENT OF LONG LIVED ASSETS

Long lived assets, such as property, plant and equipment and finite lived intangibles, are evaluated for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be recoverable. An impairment loss is recognized when estimated undiscounted future cash flows expected to result from the use of the asset plus net proceeds expected from disposition of the asset (if any) are less than the carrying value of the asset.

DERIVATIVES INSTRUMENTS AND HEDGING ACTIVITIES

Derivative financial instruments are recorded in the consolidated balance sheets at fair value as either assets or liabilities. Changes in the fair value of derivatives are recorded in each period in earnings or accumulated other comprehensive income, depending on whether a derivative is designated and effective as part of a hedge transaction.

RETIREMENT OF TREASURY SHARES

During the third quarter of 2015, the Company retired 20 million shares of treasury stock. Common stock was reduced by the number of shares retired at $0.01 par value while treasury stock was reduced by the purchase price of the shares retired. The excess of purchase price over par or stated value may either be charged entirely to retained earnings or allocated between additional paid-in capital and retained earnings. The Company has elected to allocate the excess purchase price over par value between additional paid-in capital and retained earnings. Subsequent to the third quarter of 2015, shares repurchased are immediately retired.

RESEARCH & DEVELOPMENT EXPENSES

Research and development costs, net of any customer funded research and development or government research and development credits, are expensed as incurred. These costs amounted to $66.2 million, $67.1 million and

$76.2 million in 2016, 2015 and 2014, respectively.

INCOME TAXES

The Company computes taxes on income in accordance with the tax rules and regulations of the many taxing authorities where the income is earned. The income tax rates imposed by these taxing authorities may vary substantially. Taxable income may differ from pretax income for financial accounting purposes. To the extent that these differences create timing differences between the tax basis of an asset or liability and its reported amount in the financial statements, an appropriate provision for deferred income taxes is made.

In its determination of which foreign earnings are permanently reinvested in foreign operations, the Company considers numerous factors, including the financial requirements of the U.S. parent company and those of its foreign subsidiaries, the U.S. funding needs for dividend payments and stock repurchases, and the tax consequences of remitting earnings to the U.S. From this analysis, current year repatriation decisions are made in an attempt to provide a proper mix of debt and stockholder capital both within the U.S. and for non U.S. operations. The Company's policy is to permanently reinvest its accumulated foreign earnings and will only make a distribution to the U.S. out of current year earnings in order to meet the cash needs at the parent company. As such, the Company does not provide taxes on earnings that are deemed to be permanently reinvested.

Table of Contents

The Company has determined its 2016 foreign earnings will not be reinvested, as the Company is planning to repatriate cash to the U.S. in 2017 in excess of the expected 2017 earnings. There are no additional tax amounts to be recorded in connection with the 2017 repatriation.

The Company provides a liability for the amount of unrecognized tax benefits from uncertain tax positions. This liability is provided whenever the Company determines that a tax benefit will not meet a more-likely-than-not threshold for recognition. See Note 5 for more information.

TRANSLATION OF FOREIGN CURRENCIES

The functional currencies of the majority of the Company's foreign operations are the local currencies. Assets and liabilities of the Company's foreign operations are translated into U.S. dollars at the rates of exchange on the balance sheet date. Sales and expenses are translated at the average rates of exchange prevailing during the year. The related translation adjustments are accumulated in a separate section of Stockholders' Equity. Realized and unrealized foreign currency transaction gains and losses are reflected in income, as a component of miscellaneous income and expense, and represented losses of $326 thousand, $3.9 million and $37 thousand in 2016, 2015 and 2014, respectively.

STOCK BASED COMPENSATION

Accounting standards require the application of the non substantive vesting approach which means that an award is fully vested when the employee's retention of the award is no longer contingent on providing subsequent service. Under this approach, compensation costs are recognized over the requisite service period of the award instead of ratably over the vesting period stated in the grant. As such, costs are recognized immediately if the employee is retirement eligible on the date of grant or over the period from the date of grant until retirement eligibility if retirement eligibility is reached before the end of the vesting period stated in the grant. See Note 15 for more information.

REVENUE RECOGNITION

Product and Tooling Sales. The Company's policy is to recognize revenue from product sales when the price is fixed and determinable, when the title and risk of loss has transferred to the customer, when the Company has no remaining obligations regarding the transaction and when collection is reasonably assured. The majority of the Company's products shipped from the U.S. transfers title and risk of loss when the goods leave the Company's shipping location. The majority of the Company's products shipped from non U.S. operations transfer title and risk of loss when the goods reach their destination. Tooling revenue is also recognized when the title and risk of loss transfers to the customer.

Services and Other. The Company invoices customers for certain services. The Company also receives revenue from other sources such as license, exclusivity or royalty agreements. Revenue is recognized when services are rendered or rights to use assets can be reliably measured and when collection is reasonably assured. License, exclusivity and royalty revenues are typically recognized when the contractual terms of each agreement are met. Service and other revenue is not material to the Company's results of operations for any of the years presented.

ADOPTION OF RECENT ACCOUNTING PRONOUNCEMENTS

Changes to U.S. GAAP are established by the Financial Accounting Standards Board ("FASB") in the form of accounting standards updates to the FASB's Accounting Standards Codification.

In November 2015, the FASB issued guidance which simplifies the balance sheet classification of deferred taxes. The new guidance requires that deferred tax liabilities and assets be presented as non-current in a classified statement of

financial position. This standard is effective for annual reporting periods beginning after December 15, 2016. The Company has prospectively adopted the requirements of the standard and updated the presentation of our classified statement of financial position accordingly.

In May 2015, the FASB issued new guidance on investment disclosures. Investments measured at net asset value ("NAV"), as a practical expedient for fair value, are excluded from the fair value hierarchy. Removing investments measured using the practical expedient from the fair value hierarchy is intended to eliminate the diversity in practice that currently exists with respect to the categorization of these investments. The Company has adopted the standard and updated the presentation of pension plan investment fair value hierarchy tables in the annual financial statements accordingly.

In April 2015, the FASB issued new guidance on a customer's accounting for fees paid in a cloud computing arrangement ("CCA"). Previously, there was no specific U.S. GAAP guidance on accounting for such fees from the customer's perspective. Under the new standard, customers will apply the same criteria as vendors to determine whether a CCA contains a software license or is solely a service contract. This standard was effective for annual reporting periods beginning after December 15, 2015. The Company has adopted the requirements of the standard with respect to its current CCAs and has determined that the impact is not material to our current year financial statements.

Table of Contents

In April 2015, the FASB issued an ASU intended to simplify U.S. GAAP by changing the presentation of debt issuance costs. Under the new standard, debt issuance costs will be presented as a reduction of the carrying amount of the related liability, rather than as an asset. The new treatment is consistent with debt discounts. In August 2015, the FASB issued an ASU clarifying that debt issuance costs related to line of credit arrangements can be classified as an asset and amortized ratably over the term of the line of credit arrangement. These standards were effective for annual reporting periods beginning after December 15, 2015. The Company has implemented these standards within the current financial statements and retrospectively applied the changes to the prior periods as required, which resulted in a $1.7 million reclassification from Intangible Assets to Current Maturities of Long-Term Obligations and Long-Term Obligations in the December 31, 2015 Consolidated Balance Sheet.

In August 2014, the FASB issued an ASU which requires the evaluation every reporting period, including interim periods, of whether there is substantial doubt about an entity’s ability to continue as a going concern and provide certain footnote disclosures depending on the results of such evaluation. The standard was effective for the Company in the fourth quarter of 2016. The adoption of the new rules did not have an impact on our current year financial statements.

In May 2014, the FASB amended the guidance for recognition of revenue from customer contracts. The core principle of the guidance is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in the amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB decided to defer the effective date by one year to December 15, 2017 for annual reporting periods beginning after that date. The FASB also decided to allow early adoption of the standard, but not before the original effective date of December 15, 2016. Subsequent to the initial standards, the FASB has also issued several ASUs to clarify specific revenue recognition topics. We are currently evaluating the impact the adoption of this standard will have on our consolidated financial statements. The majority of our revenues are derived from product sales and tooling sales and we are in the process of assessing the impact of the new guidance on these revenue streams. We are also evaluating our license, exclusivity and royalty arrangements, which will need to be reviewed individually to ensure proper accounting under the new standard. Based on our initial reviews, we currently anticipate adopting the full retrospective transition method for implementing this guidance on the standard’s effective date.

Other accounting standards that have been issued by the FASB or other standards-setting bodies did not have a material impact on our consolidated financial statements.

REVISION OF PRIOR PERIOD FINANCIAL STATEMENTS

During the fourth quarter of 2016, the Company determined that certain of our long-term obligations had been incorrectly presented in the financing activities section of the Consolidated Statements of Cash Flows for the year ended December 31, 2015. The standards require that proceeds and repayments of long-term obligations be presented on a gross basis as opposed to a net basis. As the adjustment represent a reclassification between two accounts within the financing activities section of the Consolidated Statements of Cash Flows, the Consolidated Statements of Income and the Consolidated Balance Sheets are not impacted by this change. The revision, which the Company has determined is not material but was significant enough to revise, had no impact on the consolidated results of operations. Following is a summary of the previously reported financial statement line items impacted by this revision of all periods and statements included in this report:

	As Previously Reported	Adjustment	As Revised
Revised Consolidated Statements of Cash Flows			

Year Ended December 31, 2015			
Proceeds from long-term obligations	$ 209,236	$ 16,000	$ 225,236
Repayments of long-term obligations	(981)	(16,000)	(16,981)
Net Cash Used by Financing Activities	(33,066)	—	(33,066)

Table of Contents

NOTE 2 INVENTORIES

Inventories, by component, consisted of:

	2016	2015
Raw materials	$ 98,014	$ 91,214
Work in process	91,646	90,625
Finished goods	107,254	113,073
Total	$ 296,914	$ 294,912

NOTE 3 GOODWILL AND OTHER INTANGIBLE ASSETS

The changes in the carrying amount of goodwill for the year ended December 31, 2016 are as follows by reporting segment:

	Beauty + Home	Pharma	Food + Beverage	Corporate & Other	Total
Balance as of December 31, 2014					
Goodwill	$ 171,149	$ 141,592	$ 17,000	$ 1,615	$ 331,356
Accumulated impairment losses	—	—	—	(1,615)	(1,615)
	$ 171,149	$ 141,592	$ 17,000	$ —	$ 329,741
Foreign currency exchange effects	(6,559)	(12,232)	(710)	—	(19,501)
Balance as of December 31, 2015					
Goodwill	$ 164,590	$ 129,360	$ 16,290	$ 1,615	$ 311,855
Accumulated impairment losses	—	—	—	(1,615)	(1,615)
	$ 164,590	$ 129,360	$ 16,290	$ —	$ 310,240
Acquisition	49,735	55,827	—	—	105,562
Foreign currency exchange effects	(2,954)	(5,137)	(189)	—	(8,280)
Balance as of December 31, 2016					
Goodwill	$ 211,371	$ 180,050	$ 16,101	$ 1,615	$ 409,137

Accumulated impairment losses	—	—	—	(1,615)	(1,615)
	$ 211,371	$ 180,050	$ 16,101	$ —	$ 407,522

The Company has completed the annual impairment analysis of its reporting units as of December 31, 2016 using both a discounted cash flow analysis and market multiple approach. Based on our review of macroeconomic, industry, and market events and circumstances as well as the overall financial performance of the reporting units, we determined that the fair value of goodwill was greater than its carrying amount for all four reporting units. Therefore, no impairment of goodwill has been recorded.

The table below shows a summary of intangible assets for the years ended December 31, 2016 and 2015.

		2016			2015		
Weighted Average Amortization Period	(Years)	Gross Carrying Amount	Accumulated Amortization	Net Value	Gross Carrying Amount	Accumulated Amortization	Net Value
Amortized intangible assets:							
Patents	0.2	$ 6,859	$ (6,839)	$ 20	$ 15,358	$ (15,330)	$ 28
Acquired technology	14.9	41,731	(10,040)	31,691	32,030	(7,475)	24,555
Customer relationships	11.8	63,006	(6,696)	56,310	6,406	(1,493)	4,913
License agreements and other	8.0	18,516	(12,048)	6,468	21,222	(19,189)	2,033
Total intangible assets	11.7	$ 130,112	$ (35,623)	$ 94,489	$ 75,016	$ (43,487)	$ 31,529

Table of Contents

Aggregate amortization expense for the intangible assets above for the years ended December 31, 2016, 2015 and 2014 was $9,317, $4,246 and $5,325, respectively.

Estimated amortization expense for the years ending December 31 is as follows:

2017	$ 9,669
2018	9,659
2019	9,493
2020	8,393
2021 and thereafter	57,275

Future amortization expense may fluctuate depending on changes in foreign currency rates. The estimates for amortization expense noted above are based upon foreign exchange rates as of December 31, 2016.

NOTE 4 ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

At December 31, 2016 and 2015, accounts payable and accrued liabilities consisted of the following:

	2016	2015
Accounts payable, principally trade	$ 115,514	$ 115,061
Accrued employee compensation costs	119,767	125,724
Customer deposits and other unearned income	44,068	33,253
Other accrued liabilities	89,790	80,890
Total	$ 369,139	$ 354,928

NOTE 5 INCOME TAXES

Income before income taxes consists of:

Years Ended December 31,	2016	2015	2014
United States	$ 55,278	$ 73,492	$ 31,681
International	225,219	221,079	254,620
Total	$ 280,497	$ 294,571	$ 286,301

The provision (benefit) for income taxes is comprised of:

Years Ended December 31,	2016	2015	2014
Current:			
U.S. Federal	$ 24,045	$ 19,749	$ 14,023
State/Local	449	82	42
International	61,511	82,586	99,585
	$ 86,005	$ 102,417	$ 113,650
Deferred:			
U.S. Federal/State	$ (4,002)	$ 1,605	$ (10,130)
International	(7,110)	(8,746)	(8,843)
	$ (11,112)	$ (7,141)	$ (18,973)
Total	$ 74,893	$ 95,276	$ 94,677

Table of Contents

The difference between the actual income tax provision and the tax provision computed by applying the statutory federal income tax rate of 35.0% in 2016, 2015 and 2014 to income before income taxes is as follows:

Years Ended December 31,	2016	2015	2014
Income tax at statutory rate	$ 98,174	$ 103,100	$ 100,205
State income (benefits) taxes, net of federal (tax) benefit	(980)	(1,254)	770
Investment incentives	(6,413)	(3,082)	—
Tax resolutions	(7,205)	2,375	—
Provision for distribution of current foreign earnings	3,494	2,031	695
Rate differential on earnings of foreign operations	(12,037)	(5,688)	(5,478)
Other items, net	(140)	(2,206)	(1,515)
Actual income tax provision	$ 74,893	$ 95,276	$ 94,677
Effective income tax rate	26.7 %	32.3 %	33.1 %

The state income tax provision for 2016 reflects a benefit of $1.6 million related to the reduction of valuation allowances mostly associated with U.S. state tax credits. The tax provision for 2016 also reflects benefits of $6.4 million associated with the exceptional depreciation allowances enacted in France and Italy. The $7.2 million related to tax resolutions includes an amount of $5.0 million related to dividends previously taxed in France. The remaining $2.2 million is a net amount related to uncertain tax positions in France, Italy and Germany. The $3.5 million charge pertaining to the distribution of earnings reflects $2.1 million of tax incurred in 2016 for income recognized under the U.S. deemed dividend provisions and $1.4 million for cash movements in Europe during 2016. The rate differential on earnings of foreign operations reflects a $4.7 million benefit due to the reduction in the corporate income tax rate in France from 38.00% to 34.43%. In addition, the rate differential on earnings of foreign operations reflects benefits of$2.0 million, $2.2 million, and $2.2 million due to reductions in the corporate income tax rates in Germany, Switzerland, and China, respectively.

The tax provision for 2015 reflects a benefit of $1.1 million related to the reduction of valuation allowances mostly associated with U.S. state tax credits. Additional benefits of $3.1 million associated with the exceptional depreciation allowances enacted in France during 2015 were partially offset by a $2.4 million charge for expected income tax assessments in France for a transfer pricing issue. While the Company expects to seek compensating offsets for this amount, no receivable has been recorded at this time. The $2.0 million charge pertaining to the distribution of earnings reflects $1.6 million of tax incurred in 2015 for income recognized under the U.S. deemed dividend provisions and $0.4 million for planned cash movements in Europe during 2016.

In 2014, we did not repatriate foreign earnings to the U.S., resulting in a reduced tax rate.

Significant deferred tax assets and liabilities as of December 31, 2016 and 2015 are comprised of the following temporary differences:

	2016	2015
Deferred Tax Assets:		
Pension liabilities	$ 27,087	$ 27,155

Stock compensation	18,943	20,170
Foreign tax credit carryforward	10,813	7,471
Net operating loss carryforwards	5,150	5,053
U.S. state tax credits	8,103	8,554
Vacation	4,783	4,167
Workers compensation	3,575	4,693
Other	12,651	6,503
Total gross deferred tax assets	91,105	83,766
Less valuation allowance	(4,070)	(6,125)
Net deferred tax assets	87,035	77,641
Deferred Tax Liabilities:		
Depreciation, amortization and leases	39,189	47,154
Acquisition related intangibles	30,417	15,720
Total gross deferred tax liabilities	69,606	62,874
Net deferred tax assets	$ 17,429	$ 14,767

The foreign tax credit carryforward will expire in the years 2023, 2024 and 2026. There is no expiration date on $4.7 million of the tax effected net operating loss carry forwards and $0.4 million (tax effected) will expire in the years 2019 to 2034. The U.S. state tax credit carryforwards of $8.1 million (tax effected) will expire in the years 2018 to 2031. No state tax credit carryforwards are expected to expire unused in 2017.

Table of Contents

The Company evaluates the deferred tax assets and records a valuation allowance when it is believed it is more likely than not that the benefit will not be realized. The Company has established a valuation allowance of $2.2 million of the $5.2 million of tax effected net operating loss carry forwards. These losses are generally in start up jurisdictions or locations that have not produced an operating profit to date. A valuation allowance of $1.4 million has been established against the $8.1 million of U.S. state tax credit carry forwards. A valuation allowance of $0.5 million has been established related to other future tax deductions in non U.S. jurisdictions, the benefit of which management believes will not be realized.

As of December 31, 2016, the Company had $1.5 billion of unremitted earnings from non U.S. subsidiaries. We are planning to repatriate a total of $0.3 billion of unremitted earnings in 2017. The remaining $1.2 billion of unremitted earnings have been designated as permanently reinvested. The Company has not made a provision for U.S. or additional foreign taxes on the amount of unremitted earnings. However, we estimate the amount of additional tax that might be payable on these earnings to be in the range of $50 million to $60 million. These earnings will continue to be reinvested indefinitely and could become subject to the additional tax if they were remitted as dividends or lent to a U.S. affiliate, or if the Company should sell its stock in the subsidiaries. No provision for U.S. or additional foreign taxes has been made with respect to the planned remittance of the $0.3 billion to the U.S. in 2017, as no additional tax amounts are expected to be incurred on this repatriation under existing U.S. tax law.

The Company has not provided for taxes on certain tax deferred income of a foreign operation. The income arose predominately from government grants. Taxes of approximately $1.6 million would become payable in the event the terms of the grant are not fulfilled.

INCOME TAX UNCERTAINTIES

The Company provides a liability for the amount of tax benefits realized from uncertain tax positions. A reconciliation of the beginning and ending amount of income tax uncertainties is as follows:

	2016	2015	2014
Balance at January 1	$ 7,934	$ 6,408	$ 7,988
Increases based on tax positions for the current year	270	255	113
Increases based on tax positions of prior years	1,283	2,684	228
Decreases based on tax positions of prior years	(1,472)	(518)	(1,073)
Settlements	(1,444)	(207)	(407)
Lapse of statute of limitations	(215)	(688)	(441)
Balance at December 31	$ 6,356	$ 7,934	$ 6,408

The amount of income tax uncertainties that, if recognized, would impact the effective tax rate is close to $6.4 million. The Company estimates that it is reasonably possible that the liability for uncertain tax positions will decrease no more than $4.6 million in the next twelve months from the resolution of various uncertain positions as a result of the completion of tax audits, litigation and the expiration of the statute of limitations in various jurisdictions.

The Company recognizes interest and penalties accrued related to unrecognized tax benefits as a component of income taxes. As of December 31, 2016, 2015 and 2014, the Company had approximately $1.5 million, $1.1 million and $0.7 million, respectively, accrued for the payment of interest and penalties, of which approximately $0.4 million, $0.4 million and ($0.2) million was recognized in income tax expense in the years ended December 31, 2016, 2015

and 2014, respectively.

The Company or its subsidiaries file income tax returns in the U.S. Federal jurisdiction and various state and foreign jurisdictions. The major tax jurisdictions the Company files in, with the years still subject to income tax examinations, are listed below:

Major Tax Jurisdiction	Tax Years Subject to Examination
United States — Federal	2013-2016
United States — State	2009-2016
France	2013-2016
Germany	2013-2016
Italy	2012-2016
China	2007-2016

Table of Contents

NOTE 6 DEBT

The Company maintains certain short-term notes payable, including a revolving credit facility. These short-term notes payable are reported as notes payable in the current liabilities section of the Consolidated Balance Sheets. Average borrowings under these short-term notes payable were $90.9 million and $42.7 million for 2016 and 2015, respectively. The average annual interest rate on short term notes payable was approximately 2.2% for 2016 and 6.8% for 2015. The lower average annual interest rate in 2016 is due to increased borrowings on our U.S. revolving credit facility, mainly to fund our acquisition of Mega Airless and to fund share repurchases. Our credit facility has a lower interest rate than our short-term borrowings in other countries. There are no compensating balance requirements associated with short term borrowings. Each borrowing under the credit facility will bear interest at rates based on LIBOR, prime rates or other similar rates, in each case plus an applicable margin. A facility fee on the total amount of the facility is also payable quarterly, regardless of usage. The applicable margins for borrowings under the credit facility and the facility fee percentage may change from time to time depending on changes in AptarGroup's consolidated leverage ratio. The outstanding balance under the credit facility was $166.0 million and $0 million at December 31, 2016 and 2015, respectively. We incurred approximately $2.0 million and $0.9 million in interest and fees related to this credit facility during 2016 and 2015, respectively. The revolving credit and the senior unsecured debt agreements contain covenants, with which the Company is in compliance, that include certain financial tests.

The Company also maintains long-term notes obligations, including private placement facilities. In December 2014, we executed a $475 million private placement to take advantage of low long-term interest rates. At that time, we closed on $250 million of the private placement to fund our accelerated share repurchase ("ASR") program (see Note 13). This closing consisted of two maturity tranches, with $125 million of 9 year notes at an interest rate of 3.49% and $125 million of 11 year notes at an interest rate of 3.61%. We closed on the remaining $225 million of the private placement in February 2015, consisting of $100 million of 9 year notes at an interest rate of 3.49% and $125 million of 11 year notes at an interest rate of 3.61%. The proceeds from this closing were used to pay down the existing revolving line of credit.

At December 31, 2016, the Company's long term obligations consisted of the following:

	Principal	Unamortized Debt Issuance Costs	Net
Notes payable 0.61% – 16.00%, due in monthly and annual installments through 2025	$ 18,246	$ —	$ 18,246
Senior unsecured notes 6.0%, due in 2018	75,000	37	74,963
Senior unsecured notes 3.8%, due in 2020	84,000	119	83,881
Senior unsecured notes 3.2%, due in 2022	75,000	138	74,862
Senior unsecured notes 3.5%, due in 2023	125,000	256	124,744
Senior unsecured notes 3.4%, due in 2024	50,000	104	49,896
Senior unsecured notes 3.5%, due in 2024	100,000	256	99,744
Senior unsecured notes 3.6%, due in 2025	125,000	269	124,731
Senior unsecured notes 3.6%, due in 2026	125,000	269	124,731
Capital lease obligations	1,542	—	1,542
	$ 778,788	$ 1,448	$ 777,340
Current maturities of long-term obligations	(4,603)	—	(4,603)

Total long-term obligations	$ 774,185	$ 1,448	$ 772,737

Table of Contents

At December 31, 2015, the Company's long-term obligations consisted of the following:

	Principal	Unamortized Debt Issuance Costs	Net
Notes payable 0.61% – 14.50%, due in monthly and annual installments through 2025	$ 3,785	$ —	$ 3,785
Senior unsecured notes 6.0%, due in 2016	50,000	5	49,995
Senior unsecured notes 6.0%, due in 2018	75,000	63	74,937
Senior unsecured notes 3.8%, due in 2020	84,000	150	83,850
Senior unsecured notes 3.2%, due in 2022	75,000	163	74,837
Senior unsecured notes 3.5%, due in 2023	125,000	293	124,707
Senior unsecured notes 3.4%, due in 2024	50,000	118	49,882
Senior unsecured notes 3.5%, due in 2024	100,000	293	99,707
Senior unsecured notes 3.6%, due in 2025	125,000	298	124,702
Senior unsecured notes 3.6%, due in 2026	125,000	298	124,702
Capital lease obligations	1,628	—	1,628
	$ 814,413	$ 1,681	$ 812,732
Current maturities of long-term obligations	(51,889)	(5)	(51,884)
Total long-term obligations	$ 762,524	$ 1,676	$ 760,848

For 2016, the aggregate long term maturities, excluding capital lease obligations, which is discussed in Note 7, due annually for the five years beginning in 2017 are $3,800, $78,443, $5,338, $85,703, $1,704 and $602,259 thereafter.

NOTE 7 LEASE COMMITMENTS

The Company leases certain warehouse, plant, and office facilities as well as certain equipment under noncancelable operating and capital leases expiring at various dates through the year 2027. Most of the operating leases contain renewal options and certain leases include options to purchase during or at the end of the lease term.

Amortization expense related to capital leases is included in depreciation expense. Rent expense under operating leases (including taxes, insurance and maintenance when included in the rent) amounted to $27,360, $26,583 and $30,813 in 2016, 2015 and 2014, respectively.

Assets recorded under capital leases consist of:

	2016	2015
Buildings	$ 2,119	$ 2,184
Machinery and equipment	2,527	831
	$ 4,646	$ 3,015
Accumulated depreciation	(2,102)	(663)

$ 2,544	$ 2,352

Future minimum payments, by year and in the aggregate, under the capital leases and noncancelable operating leases with initial or remaining terms of one year or more consisted of the following at December 31, 2016:

	Capital Leases	Operating Leases
2017	$ 936	$ 22,066
2018	740	14,864
2019	80	10,934
2020	3	6,882
2021	—	6,309
Subsequent to 2021	—	15,830
Total minimum lease payments	1,759	$ 76,885
Amounts representing interest	(217)	
Present value of future minimum lease payments	1,542	
Lease amount due in one year	(803)	
Total	$ 739	

Table of Contents

NOTE 8 RETIREMENT AND DEFERRED COMPENSATION PLANS

The Company has various noncontributory retirement plans covering certain of its domestic and foreign employees. Benefits under the Company's retirement plans are based on participants' years of service and annual compensation as defined by each plan. Annual cash contributions to fund pension costs accrued under the Company's domestic plans are generally at least equal to the minimum funding amounts required by the Employee Retirement Income Security Act of 1974, as amended (ERISA). Certain pension commitments under its foreign plans are also funded according to local requirements or at the Company's discretion.

The following table presents the changes in the benefit obligations and plan assets for the most recent two years for the Company's domestic and foreign plans.

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Change in benefit obligation:				
Benefit obligation at beginning of year	$ 160,995	$ 171,501	$ 84,807	$ 91,160
Service cost	9,041	10,016	4,556	4,570
Interest cost	6,776	6,355	1,892	1,654
Curtailment/Settlement	—	—	—	(227)
Prior service cost	—	—	655	821
Actuarial loss (gain)	4,278	(19,568)	6,663	(1,486)
Benefits paid	(5,211)	(7,309)	(2,244)	(2,265)
Foreign currency translation adjustment	—	—	(3,151)	(9,420)
Benefit obligation at end of year	$ 175,879	$ 160,995	$ 93,178	$ 84,807

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 112,934	$ 111,094	$ 58,517	$ 55,394
Actual return on plan assets	8,414	(930)	2,168	927
Employer contribution	10,109	10,079	5,209	10,157
Benefits paid	(5,211)	(7,309)	(2,244)	(2,265)
Foreign currency translation adjustment	—	—	(1,738)	(5,696)
Fair value of plan assets at end of year	$ 126,246	$ 112,934	$ 61,912	$ 58,517
Funded status at end of year	$ (49,633)	$ (48,060)	$ (31,266)	$ (26,288)

The following table presents the funded status amounts recognized in the Company's Consolidated Balance Sheets as of December 31, 2016 and 2015.

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Current liabilities	$ (302)	$ (173)	$ —	$ —

Non-current liabilities	(49,331)	(47,887)	(31,266)	(26,288)
	$ (49,633)	$ (48,060)	$ (31,266)	$ (26,288)

The following table presents the amounts not recognized as components of periodic benefit cost that are recognized in accumulated other comprehensive loss as of December 31, 2016 and 2015.

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Net actuarial loss	$ 48,872	$ 47,820	$ 38,550	$ 33,839
Net prior service cost	—	—	4,342	4,036
Tax effects	(18,327)	(17,933)	(13,661)	(12,211)
	$ 30,545	$ 29,887	$ 29,231	$ 25,664

Table of Contents

Changes in benefit obligations and plan assets recognized in other comprehensive income in 2016, 2015 and 2014 are as follows:

	Domestic Plans		
	2016	2015	2014
Current year actuarial (loss) gain	$ (4,335)	$ 11,048	$ (34,211)
Amortization of net loss	3,283	5,404	2,869
	$ (1,052)	$ 16,452	$ (31,342)

	Foreign Plans		
	2016	2015	2014
Current year actuarial (loss) gain	$ (6,251)	$ 568	$ (12,589)
Current year prior service cost	(656)	(821)	—
Amortization of net loss	1,540	1,812	1,214
Amortization of prior service cost	350	256	313
	$ (5,017)	$ 1,815	$ (11,062)

The following table presents the amounts in accumulated other comprehensive loss as of December 31, 2016 expected to be recognized as components of periodic benefit cost in 2017.

	Domestic Plans	Foreign Plans
Amortization of net loss	$ 2,973	$ 1,766
Amortization of prior service cost	—	373
	$ 2,973	$ 2,139

Components of net periodic benefit cost:

	Domestic Plans		
	2016	2015	2014
Service cost	$ 9,041	$ 10,016	$ 8,042
Interest cost	6,776	6,355	5,928
Expected return on plan assets	(8,471)	(7,590)	(6,585)
Amortization of net loss	3,283	5,404	2,869
Net periodic benefit cost	$ 10,629	$ 14,185	$ 10,254

	Foreign Plans		
	2016	2015	2014
Service cost	$ 4,556	$ 4,570	$ 4,186

Interest cost	1,892	1,654	2,711
Expected return on plan assets	(2,181)	(1,792)	(1,979)
Amortization of net loss	1,540	1,676	1,214
Amortization of prior service cost	350	256	313
Net periodic benefit cost	$ 6,157	$ 6,364	$ 6,445
Settlement	—	136	—
Total Net periodic benefit cost	$ 6,157	$ 6,500	$ 6,445

The accumulated benefit obligation (“ABO”) for the Company’s domestic defined benefit pension plans was $159.4 million and $145.5 million at December 31, 2016 and 2015, respectively. The accumulated benefit obligation for the Company’s foreign defined benefit pension plans was $71.6 million and $65.5 million at December 31, 2016 and 2015, respectively.

The following table provides the projected benefit obligation (“PBO”), ABO, and fair value of plan assets for all pension plans with an ABO in excess of plan assets as of December 31, 2016 and 2015.

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Projected benefit obligation	$ 175,879	$ 160,995	$ 84,517	$ 81,343
Accumulated benefit obligation	159,398	145,482	62,913	61,990
Fair value of plan assets	126,246	112,934	53,082	55,054

Table of Contents

The following table provides the PBO, ABO, and fair value of plan assets for all pension plans with a PBO in excess of plan assets as of December 31, 2016 and 2015.

	Domestic Plans		Foreign Plans	
	2016	2015	2016	2015
Projected benefit obligation	$ 175,879	$ 160,995	$ 84,517	$ 81,343
Accumulated benefit obligation	159,398	145,482	62,913	61,990
Fair value of plan assets	126,246	112,934	53,082	55,054

Assumptions:

	Domestic Plans			Foreign Plans		
	2016	2015	2014	2016	2015	2014
Weighted-average assumptions used to determine benefit obligations at December 31:						
Discount rate	4.05 %	4.24 %	3.83 %	1.65 %	2.10 %	1.90 %
Rate of compensation increase	4.00 %	4.00 %	4.00 %	3.00 %	3.00 %	3.00 %
Weighted-average assumptions used to determine net periodic benefit cost for years ended December 31:						
Discount rate	4.24 %	3.83 %	4.75 %	2.10 %	1.90 %	3.24 %
Expected long-term return on plan assets	7.00 %	7.00 %	7.00 %	3.66 %	3.54 %	3.79 %
Rate of compensation increase	4.00 %	4.00 %	4.00 %	3.00 %	3.00 %	3.00 %

The Company develops the expected long term rate of return assumptions based on historical experience and by evaluating input from the plans' asset managers, including the managers' review of asset class return expectations and benchmarks, economic indicators and long term inflation assumptions.

In order to determine the 2017 net periodic benefit cost, the Company expects to use the December 31, 2016 discount rates, December 31, 2016 rates of compensation increase assumptions and the same assumed long term returns on domestic and foreign plan assets used for the 2016 net periodic benefit cost.

The Company's domestic and foreign pension plan weighted average asset allocations at December 31, 2016 and 2015 by asset category are as follows:

Plan Assets:

	Domestic Plans Assets at December 31,	Foreign Plans Assets at December 31,

	2016		2015		2016		2015	
Equity securities	48	%	47	%	4	%	4	%
Fixed income securities	28	%	30	%	1	%	1	%
Corporate debt securities	—		—		3	%	3	%
Infrastructure	7	%	8	%	—		—	
Hedge funds	11	%	14	%	—		—	
Money market	1	%	1	%	3	%	3	%
Investment Funds	—		—		89	%	89	%
Real estate	5	%	—		—		—	
Total	100	%	100	%	100	%	100	%

The Company’s investment strategy for its domestic and foreign pension plans is to maximize the long term rate of return on plan assets within an acceptable level of risk. The investment policy strives to have assets sufficiently diversified so that adverse or unexpected results from one security type will not have an unduly detrimental impact on the entire portfolio and accordingly, establishes a target allocation for each asset category within the portfolio. The domestic plan asset allocation is reviewed on a quarterly basis and the foreign plan asset allocation is reviewed annually. Rebalancing occurs as needed to comply with the investment strategy. The domestic plan target allocation for 2017 is 60% equity securities and 40% fixed income securities and infrastructure. The foreign plan target allocation for 2017 is 100% investment funds.

Table of Contents

Authoritative guidelines require the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. The three levels are defined as follows:

- Level 1: Unadjusted quoted prices in active markets for identical assets and liabilities.
- Level 2: Observable inputs other than those included in Level 1. For example, quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.
- Level 3: Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability.

	Domestic Fair Value Measurement at December 31, 2016				Foreign Fair Value Measurement at December 31, 2016			
(In Thousands $)	Total	(Level 1)	(Level 2)	(Level 3)	Total	(Level 1)	(Level 2)	(Level 3)
Cash and Short-term Securities (a)	$ 821	$ 821	$ —	$ —	$ 1,585	$ 1,585	$ —	$ —
USD	—	821	—	—	—	—	—	—
EUR	—	—	—	—	—	1,585	—	—
Equity Securities (a)	$ 54,013	$ 54,013	—	—	$ 2,539	$ 2,539	—	—
US Large Cap Equities	—	32,672	—	—	—	—	—	—
US Small Cap Equities	—	5,929	—	—	—	—	—	—
International Equities	—	15,412	—	—	—	2,539	—	—
Fixed Income (a&b)	$ 22,944	$ 22,944	—	—	$ 680	$ 680	—	—
Corporate debts securities	—	—	—	—	$ 1,725	$ 1,725	—	—
Euro Corporate Bonds (a)	—	—	—	—	—	1,725	—	—
Investment Funds	—	—	—	—	$ 55,383	$ 21,082	$ 34,301	—
Mutual Funds in Equities (a)	—	—	—	—	—	3,393	—	—
Mutual Funds in Bonds (a)	—	—	—	—	—	17,027	—	—
Mutual Funds Diversified (a&b)	—	—	—	—	—	662	34,301	—
Total Investments in Fair Value Hierarchy	$ 77,778	$ 77,778	$ —	$ —	$ 61,912	$ 27,611	$ 34,301	$ —
Investments at Net Asset Value per Share	48,468	—	—	—	—	—	—	—
Total Investments	$ 126,246	$ 77,778	$ —	$ —	$ 61,912	$ 27,611	$ 34,301	$ —

Table of Contents

(In Thousands $)	Domestic Fair Value Measurement at December 31, 2015 Total	(Level 1)	(Level 2)	(Level 3)	Foreign Fair Value Measurement at December 31, 2015 Total	(Level 1)	(Level 2)	(Level 3)
Cash and Short-term Securities (a)	$ 1,189	$ 1,189	$ —	$ —	$ 1,907	$ 1,907	$ —	$ —
USD	—	1,189	—	—	—	—	—	—
EUR	—	—	—	—	—	1,907	—	—
Equity Securities (a)	$ 47,725	$ 47,725	—	—	$ 2,258	$ 2,258	—	—
US Large Cap Equities	—	28,797						