

AIR PRODUCTS & CHEMICALS INC /DE/
Form 10-K
November 26, 2013
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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
30 September 2013

OR

.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)
OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition
period from _____ to _____
Commission file number 1-4534

AIR PRODUCTS AND CHEMICALS, INC.

7201 Hamilton Boulevard
Allentown, Pennsylvania, 18195-1501
Tel. (610) 481-4911

State of incorporation: Delaware
I.R.S. identification number: 23-1274455

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

Title of Each Class:
Common Stock, par value \$1.00 per share
Preferred Stock Purchase Rights

Registered on:
New York
New York

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

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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 (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405) 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 the definitions of large accelerated filer, accelerated filer, and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer Non-accelerated filer 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 voting stock held by non-affiliates of the registrant on 31 March 2013 was approximately \$18.1 billion. For purposes of the foregoing calculations all directors and/or executive officers have been deemed to be affiliates, but the registrant disclaims that any such director and/or executive officer is an affiliate.

The number of shares of common stock outstanding as of 31 October 2013 was 211,275,654.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the Annual Meeting of Shareholders to be held on 23 January 2014 are incorporated by reference into Part III.

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AIR PRODUCTS AND CHEMICALS, INC.

ANNUAL REPORT ON FORM 10-K

For the fiscal year ended 30 September 2013

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PART I

ITEM 1. BUSINESS

General Description of Business

Air Products and Chemicals, Inc. (we, our, us, the Company, Air Products, or registrant), a Delaware corporation originally founded in 1911, serves energy, electronics, chemicals, metals, and manufacturing customers globally with a unique portfolio of products, services, and solutions that include atmospheric gases, process and specialty gases, performance materials, equipment, and services. The Company is the world's largest supplier of hydrogen and helium and has built leading positions in growth markets such as refinery hydrogen, semiconductor materials, natural gas liquefaction, and advanced coatings and adhesives. As used in this report, unless the context indicates otherwise, the terms we, our, us, the Company, or registrant include controlled subsidiaries and predecessors of Air Products and its subsidiaries.

Financial Information about Segments

The Company manages its operations, assesses performance, and reports earnings under four business segments: Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy. Financial information concerning the Company's four business segments appears in Note 25, Business Segment and Geographic Information, to the consolidated financial statements, included under Item 8, herein.

Narrative Description of Business by Segments

Merchant Gases

Merchant Gases sells atmospheric gases, such as oxygen, nitrogen, and argon (primarily recovered by the cryogenic distillation of air); process gases such as hydrogen, helium (purchased or refined from crude helium), and carbon dioxide; specialty gases; temporary gas supply services; and equipment, throughout the world to customers in diversified industries, including metals, glass, electronics, chemical processing, food processing, healthcare, general manufacturing, and petroleum and natural gas industries.

Merchant Gases supplies the following types of products:

Liquid bulk Product is delivered in bulk (in liquid or gaseous form) by tanker or tube trailer and stored, usually in its liquid state, in equipment designed and installed by the Company at the customer's site for vaporizing into a gaseous state as needed. Liquid bulk sales are typically governed by three- to five-year contracts.

Packaged gases Small quantities of product are delivered in either cylinders or dewars. The Company operates packaged gas businesses in Europe, Asia, and Latin America. In the United States, the Company's packaged gas business sells products only for the electronics and magnetic resonance imaging (principally helium) industries.

Small on-site plants Customers receive product through small on-sites (cryogenic or noncryogenic generators), either by a sale of gas contract or the sale of the equipment to the customer.

Electric power is the largest cost component in the production of atmospheric gases—oxygen, nitrogen, and argon. Natural gas is also an energy source at a number of the Company's Merchant Gases facilities. The Company mitigates energy and natural gas price increases through pricing formulas and surcharges. Helium is primarily produced as a by-product of natural gas production. We purchase crude helium for purification and resale. During fiscal year 2013, we experienced shortages in helium supply due to industry-wide sourcing shortfalls. No other significant difficulties were encountered in obtaining adequate supplies of energy or raw materials during the year.

Merchant Gases competes worldwide against three global industrial gas companies: L'Air Liquide S.A.; Linde AG; and Praxair, Inc.; and several regional sellers (including Airgas, Inc., primarily with respect to liquid bulk sales). Competition in industrial gases is based primarily on price, reliability of supply, and the development of industrial gas applications.

Merchant Gases sales constituted 40% of the Company's consolidated sales in fiscal year 2013, 38% in fiscal year 2012, and 38% in fiscal year 2011. Sales of atmospheric gases (oxygen, nitrogen, and argon) constituted approximately 19% of consolidated sales in fiscal year 2013, 21% in

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fiscal year 2012, and 21% in fiscal year 2011.

The Company owns a 67.2% controlling interest in the outstanding shares of Indura S.A., an industrial gas company in South America which produces packaged and liquid bulk gases and sells related hard goods. Indura S. A. is

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accounted for as part of the Merchant Gases operating segment. The Merchant Gases segment also includes the Company's share of the results of several joint ventures accounted for by the equity method. The largest of these joint ventures operate in Mexico, Italy, South Africa, Saudi Arabia, India, and Thailand.

Tonnage Gases

Tonnage Gases provides hydrogen, carbon monoxide, nitrogen, oxygen, and syngas (a hydrogen-carbon monoxide mixture) principally to the energy production and refining, chemical, and metallurgical industries worldwide. Gases are produced at large facilities located adjacent to customers' facilities or by pipeline systems from centrally located production facilities and are generally governed by contracts with 15- to 20-year terms. The Company is the world's largest provider of hydrogen, which is used by oil refiners to facilitate the conversion of heavy crude feedstock and lower the sulfur content of gasoline and diesel fuels to reduce smog and ozone depletion. The energy production industry uses nitrogen injection for enhanced recovery of oil and natural gas and oxygen for gasification. The metallurgical industry uses nitrogen for inerting and oxygen for the manufacture of steel and certain nonferrous metals. The chemical industry uses hydrogen, oxygen, nitrogen, carbon monoxide, and syngas as feedstocks in the production of many basic chemicals. The Company delivers product through pipelines from centrally located facilities in or near the United States Gulf Coast; Los Angeles, California; Alberta, Canada; Rotterdam, the Netherlands; United Kingdom; Western Belgium; Ulsan, Korea; Nanjing, China; Tangshan, China; Kuan Yin, Taiwan; Singapore; and Camaçari, Brazil. The Company also owns less than controlling interests in pipelines located in Thailand and South Africa.

Natural gas is the principal raw material for hydrogen, carbon monoxide, and syngas production. Electric power is the largest cost component in the production of atmospheric gases. The Company mitigates energy and natural gas price increases through long-term cost pass-through contracts. During fiscal year 2013, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

Tonnage Gases competes against three global industrial gas companies: L'Air Liquide S.A.; Linde AG; Praxair, Inc.; and several regional competitors. Competition is based primarily on price, reliability of supply, the development of applications that use industrial gases, and, in some cases, provision of other services or products such as power and steam generation. We also have a competitive advantage in regions where we have pipeline networks, which enable us to provide a reliable and economic supply of products to customers.

Tonnage Gases sales constituted approximately 33% of the Company's consolidated sales in fiscal year 2013, 33% in fiscal year 2012, and 34% in fiscal year 2011. Tonnage Gases hydrogen and related product sales constituted approximately 21% of consolidated sales in fiscal year 2013, 19% in fiscal year 2012, and 21% in fiscal year 2011.

Electronics and Performance Materials

Electronics and Performance Materials employs applications technology to provide solutions to a broad range of global industries through chemical synthesis, analytical technology, process engineering, and surface science. This segment provides the electronics industry with specialty gases (such as nitrogen trifluoride, arsine, phosphine, white ammonia, silicon tetrafluoride, carbon tetrafluoride, hexafluoromethane, critical etch gases, and tungsten hexafluoride), tonnage gases (primarily nitrogen), chemicals mechanical planarization slurries, specialty chemicals, services, and equipment primarily for the manufacture of silicon and compound semiconductors and thin film transistor liquid crystal displays. These products are delivered through various supply chain methods, including bulk delivery systems or distribution by pipelines such as those located in California's Silicon Valley; Phoenix, Arizona; Tainan, Taiwan; Gumi and Giheung, Korea; and Tianjin China.

Electronics and Performance Materials also provides performance materials for a wide range of products, including coatings, inks, adhesives, civil engineering, personal care, institutional and industrial cleaning, mining, oil refining, and polyurethanes, and focuses on the development of new materials aimed at providing unique functionality to emerging markets. Principal performance materials include polyurethane catalysts and other additives for polyurethane foam, epoxy amine curing agents and auxiliary products for epoxy systems, specialty surfactants for formulated systems, and functional additives for industrial cleaning and mining industries.

The Electronics and Performance Materials segment uses a wide variety of raw materials, including ammonia, tungsten powder, hydrogen fluoride, amines, alcohols, epoxides, organic acids, and ketones. During fiscal year 2013, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

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The Electronics and Performance Materials segment faces competition on a product-by-product basis against competitors ranging from niche suppliers with a single product to larger and more vertically integrated companies. Competition is principally conducted on the basis of price, quality, product performance, reliability of product supply, technical innovation, service, and global infrastructure.

Total sales from Electronics and Performance Materials constituted approximately 22% of consolidated sales in fiscal year 2013, 24% in fiscal year 2012, and 24% in fiscal year 2011.

Equipment and Energy

Equipment and Energy designs and manufactures cryogenic equipment for air separation, hydrocarbon recovery and purification, natural gas liquefaction (LNG), and helium distribution (cryogenic transportation containers), and serves energy markets in a variety of ways.

Equipment is sold globally to customers in the chemical and petrochemical manufacturing, oil and gas recovery and processing, and steel and primary metals processing industries. The segment also provides a broad range of plant design, engineering, procurement, and construction management services to its customers.

Energy markets are served through the Company's operation and partial ownership of cogeneration and flue gas desulfurization facilities. In addition, we are developing hydrogen as an energy carrier, waste-to-energy facilities to produce electricity, carbon capture technologies for a variety of industrial and power applications, and oxygen-based technologies to serve energy markets in the future. The Company operates and owns a 48.8% interest in a 112-megawatt gas-fueled power generation facility in Thailand. The Company also operates and owns a 70% interest in a flue gas desulfurization facility in Indiana.

Steel, aluminum, and capital equipment subcomponents (compressors, etc.) are the principal raw materials in the equipment portion of this segment. Adequate raw materials for individual projects are acquired under firm purchase agreements. Limestone is the largest cost component in the production of energy. The Company mitigates these cost components, in part, through long-term cost pass-through contracts. During fiscal year 2013, no significant difficulties were encountered in obtaining adequate supplies of raw materials.

Equipment and Energy competes with a great number of firms for all of its offerings except LNG heat exchangers, for which there are fewer competitors due to the limited market size and proprietary technologies. Competition is based primarily on technological performance, service, technical know-how, price, and performance guarantees.

The backlog of equipment orders (including letters of intent believed to be firm) from third-party customers was approximately \$402 million on 30 September 2013, approximately 6% of which is for cryogenic equipment and 66% of which is for LNG heat exchangers, as compared with a total backlog of approximately \$450 million on 30 September 2012. The Company expects that approximately \$250 million of the backlog on 30 September 2013 will be completed during fiscal year 2014.

Narrative Description of the Company's Business Generally

The Company, through subsidiaries, affiliates, and less-than-controlling interests, conducts business in over 50 countries outside the United States. Its international businesses are subject to risks customarily encountered in foreign operations, including fluctuations in foreign currency exchange rates and controls; import and export controls; and other economic, political, and regulatory policies of local governments.

The Company has majority or wholly owned foreign subsidiaries that operate in Canada, 18 European countries (including the United Kingdom, the Netherlands, and Spain), 11 Asian countries (including China, Korea, and Taiwan), 8 Latin American countries (including Chile and Brazil) and 2 African countries. The Company also owns less-than-controlling interests in entities operating in Europe, Asia, Africa, the Middle East, and Latin America (including Italy, Germany, China, India, Saudi Arabia, Singapore, Thailand, United Arab Emirates, South Africa, and Mexico).

Financial information about the Company's foreign operations and investments is included in Note 8, Summarized Financial Information of Equity Affiliates; Note 22, Income Taxes; and Note 25, Business Segment and Geographic Information, to the consolidated financial statements included under Item 8, herein. Information about foreign currency translation is included under Foreign Currency in Note 1, Major Accounting Policies, and information on the Company's exposure to currency fluctuations is included in Note 13, Financial Instruments, to the consolidated financial statements, included under Item 8, below, and in Foreign Currency Exchange Rate Risk, included under Item 7A, below. Export sales from operations in the United States to third-party customers amounted to \$410.3 million, \$521.1 million, and \$537.3 million in fiscal years 2013, 2012, and 2011, respectively.

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Technology Development

The Company pursues a market-oriented approach to technology development through research and development, engineering, and commercial development processes. It conducts research and development principally in its laboratories located in the United States (Trexlerstown, Pennsylvania; Carlsbad, California; Milton, Wisconsin; and Phoenix, Arizona), Canada (Vancouver), the United Kingdom (Basingstoke and Carrington), Germany (Hamburg), the Netherlands (Utrecht), Spain (Barcelona), Japan (Kawasaki), China (Shanghai), Korea (Giheung), and Taiwan (Chupei and Hsinchu City). The Company also funds and cooperates in research and development programs conducted by a number of major universities and undertakes research work funded by others principally the United States government.

The Company's corporate research groups, which include science and process technology centers, support the research efforts of various businesses throughout the Company. Development of technology for use within Merchant Gases, Tonnage Gases, and Equipment and Energy focuses primarily on new and improved processes and equipment for the production and delivery of industrial gases and new or improved applications for all such products. Research and technology development for Electronics and Performance Materials supports development of new products and applications to strengthen and extend the Company's present positions. Work is also performed in Electronics and Performance Materials to lower processing costs and develop new processes for the new products.

Research and development expenditures were \$133.7 million during fiscal year 2013, \$126.4 million in fiscal year 2012, and \$118.8 million in fiscal year 2011. In addition, the Company expended \$45.5 million on customer-sponsored research activities during fiscal year 2013, \$45.4 million in fiscal year 2012, and \$29.1 million in fiscal year 2011.

As of 1 November 2013, the Company owns 972 United States patents, 3,439 foreign patents, and is a licensee under certain patents owned by others. While the patents and licenses are considered important, the Company does not consider its business as a whole to be materially dependent upon any particular patent, patent license, or group of patents or licenses.

Environmental Controls

The Company is subject to various environmental laws and regulations in the countries in which it has operations. Compliance with these laws and regulations results in higher capital expenditures and costs. From time to time, the Company is involved in proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA: the federal Superfund law), Resource Conservation and Recovery Act (RCRA), and similar state and foreign environmental laws relating to the designation of certain sites for investigation or remediation. Additional information with respect to these proceedings is included under Item 3, Legal Proceedings, below. The Company's accounting policy for environmental expenditures is discussed in Note 1, Major Accounting Policies, and environmental loss contingencies are discussed in Note 17, Commitments and Contingencies, to the consolidated financial statements, included under Item 8, below.

The amounts charged to income from continuing operations related to environmental matters totaled \$37.1 million in fiscal 2013, \$44.7 million in 2012, and \$34.0 million in 2011. These amounts represent an estimate of expenses for compliance with environmental laws, and activities undertaken to meet internal Company standards. Refer to Note 17, Commitments and Contingencies, to the consolidated financial statements for additional information.

Although precise amounts are difficult to determine, the Company estimates that we spent \$4.0 million in both 2013 and 2012, on capital projects to control pollution. Capital expenditures to control pollution in future years are estimated at approximately \$4.0 million in both 2014 and 2015.

Employees

On 30 September 2013, the Company (including majority-owned subsidiaries) had approximately 21,600 employees, of whom approximately 21,300 were full-time employees and of whom approximately 13,600 were located outside the United States. The Company has collective bargaining agreements with unions at various locations that expire on various dates over the next four years. The Company considers relations with its employees to be satisfactory.

Available Information

All periodic and current reports, registration statements, and other filings that the Company is required to file with the Securities and Exchange Commission (SEC), including the Company's annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) of the Securities Exchange Act of 1934 (the 1934 Act Reports), are available free of charge through

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the Company's Internet website at www.airproducts.com. Such documents are available as soon as reasonably practicable after electronic filing of the material with the SEC. All 1934 Act Reports filed during the period covered by this report were available on the Company's website on the same day as filing.

The public may also read and copy any materials filed by the Company with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC maintains an Internet site that contains reports, proxy, and information statements, and other information regarding issuers that file electronically with the SEC. The address of that site is www.sec.gov.

Seasonality

Although none of the four business segments are subject to seasonal fluctuations to any material extent, the Electronics and Performance Materials segment is susceptible to the cyclical nature of the electronics industry and to seasonal fluctuations in underlying end-use performance materials markets.

Working Capital

The Company maintains inventory where required to facilitate the supply of products to customers on a reasonable delivery schedule. Merchant Gases inventory consists primarily of industrial, specialty gas, and crude helium inventories supplied to customers through liquid bulk and packaged gases supply modes. Electronics and Performance Materials inventories consist primarily of bulk and packaged specialty gases and chemicals, bulk and packaged performance chemical solutions and also include inventories to support sales of equipment and services. Specialty and performance chemical inventories are stated at the lower of cost or market. Tonnage Gases and Equipment and Energy have limited inventory.

Customers

We do not have a homogeneous customer base or end market, and no single customer accounts for more than 10% of our consolidated revenues. The Tonnage Gases and Electronics and Performance Materials segments do have concentrations of customers in specific industries, primarily refining, chemicals, and electronics. Within each of these industries, the Company has several large-volume customers with long-term contracts. A negative trend affecting one of these industries, or the loss of one of these major customers, although not material to our consolidated revenues, could have an adverse impact on the affected segment.

Governmental Contracts

No segment's business is subject to a government entity's renegotiation of profits or termination of contracts that would be material to our business as a whole.

Table of Contents**Executive Officers of the Company**

The Company's executive officers and their respective positions and ages on 21 November 2013 follow.

Information with respect to offices held is stated in fiscal years.

Name	Age	Office
M. Scott Crocco (A)	49	Senior Vice President and Chief Financial Officer (became Senior Vice President and Chief Financial Officer in 2013 and Vice President and Corporate Controller in 2008).
Stephen J. Jones (A)	52	Senior Vice President and General Manager, Tonnage Gases, Equipment and Energy and China President (became Senior Vice President and General Manager, Tonnage Gases, Equipment and Energy and China President in 2011; Senior Vice President and General Manager, Tonnage Gases, Equipment and Energy in 2009; Senior Vice President, General Counsel and Secretary in 2008).
Patricia A. Mattimore (A)	53	Senior Vice President - Supply Chain (became Senior Vice President - Supply Chain in 2014 and Vice President and General Manager of Performance Materials in 2009).
John E. McGlade (1) (A)(B)(C)	59	Chairman, President, and Chief Executive Officer (became Chairman and Chief Executive Officer in 2008).
Guillermo Novo (A)	51	Senior Vice President and General Manager - Electronics, Performance Materials, Strategy and Technology (became Senior Vice President and General Manager Electronics, Performance Materials, Strategy and Technology in 2012; Group Vice President, Dow Coating Materials at Dow Chemical Company in 2010; Vice President, Polyurethanes Business at Dow Chemical Company in 2009; and Vice President at Rohm and Haas in 2008).
Corning F. Painter (A)	51	Senior Vice President and General Manager - Merchant Gases (became Senior Vice President and General Manager - Merchant Gases in 2014; Senior Vice President - Supply Chain in 2012; Senior Vice President - Corporate Strategy and Technology in 2011; and Vice President and General Manager, Global Electronics in 2007).
John D. Stanley (A)	55	Senior Vice President, General Counsel and Chief Administrative Officer (became Senior Vice President, General Counsel and Chief Administrative Officer in 2013; Senior Vice President and General Counsel in 2009; and Assistant General Counsel, Americas and Europe in 2007).

(A) Member, Corporate Executive Committee

(B) Member, Board of Directors

(C) Member, Executive Committee of the Board of Directors

(1) Mr. McGlade has announced that he plans to retire in 2014.

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ITEM 1A. RISK FACTORS

In conjunction with evaluating an investment in the Company and the forward-looking information contained in this Annual Report on Form 10-K or presented elsewhere by management from time to time, you should carefully read the following risk factors. Any of the following risks could have a material adverse effect on our business, operating results, financial condition, and the actual outcome of matters as to which forward-looking statements are made and could adversely affect the value of an investment in our common stock as well. While we believe we have identified and discussed below the key risk factors affecting our business, there may be additional risks and uncertainties that adversely affect our business, performance, or financial condition in the future that are not presently known, are not currently believed to be significant, or are not identified below because they are common to all businesses.

Overall Economic Conditions A weakening or reversal of economic recovery in certain markets in which the Company does business may decrease the demand for its goods and services and adversely impact its revenues, operating results, and cash flow.

Demand for the Company's products and services depends in part on the general economic conditions affecting the countries and industries in which the Company does business. In the past few years, uncertain economic conditions in certain geographies and industries served by the Company have impacted and may in the future impact demand for the Company's products and services, in turn negatively impacting the Company's revenues and earnings. Unfavorable conditions can depress sales in a given market, affect our margins, constrain our operating flexibility, or result in charges which are unusual or nonrecurring. Excess capacity in the Company's or its competitors' manufacturing facilities could decrease the Company's ability to maintain pricing and generate profits. Unanticipated contract terminations or project delays by current customers can also negatively impact financial results. Our operating results in one or more segments may also be affected by uncertain or deteriorating economic conditions particularly germane to that segment or to particular customer markets within that segment.

Operational, Political, and Legal Risks of International Operations The Company's foreign operations can be adversely impacted by nationalization or expropriation of property, undeveloped property rights and legal systems, or political instability. Developing market operations present special risks.

The majority of the Company's revenue is derived from international operations. In addition, the Company is actively investing significant capital and other resources in emerging markets. The Company's operations in certain foreign jurisdictions may be subject to project delays due to unanticipated government actions and to nationalization and expropriation risk, and some of its contractual relationships within these jurisdictions are subject to cancellation without full compensation for loss. Economic and political conditions within foreign jurisdictions, social unrest, or strained relations between countries can cause fluctuations in demand, price volatility, supply disruptions, or loss of property. The occurrence of any of these risks could have a material adverse impact on the Company's operations and financial results.

Our developing market operations may be subject to greater risks than those faced by our operations in mature economies, including geopolitical, legal, economic and talent risks. We expect to achieve our long-term financial goals, in part, by achieving disproportionate growth in developing regions. Should growth rates or our market share fall substantially below expected levels in these regions, our results could be negatively impacted. Our success will depend, in part, on our ability to manage the risks inherent in operating in a developing market, including unfamiliar regulatory environments, new relationships with local partners, language and cultural differences, and tailoring products for acceptance by local markets.

Interest Rate Increases The Company's earnings, cash flow, and financial position can be impacted by interest rate increases and access to credit.

At 30 September 2013, the Company had total consolidated debt of \$6,273.6 million, of which \$1,617.3 million will mature in the next twelve months. The Company expects to continue to incur indebtedness to fund new projects and replace maturing debt. Although the Company actively manages its interest rate risk through the use of derivatives and diversified debt obligations, not all borrowings at variable rates are hedged, and new debt will be priced at market rates. If interest rates increase, the Company's interest expense could increase significantly, affecting earnings and reducing cash flow available for working capital, capital expenditures, acquisitions, and other purposes. In addition, changes by any rating agency to the Company's outlook or credit ratings could increase the Company's cost of borrowing and weaken our ability to access capital and credit markets on terms commercially acceptable to us. For a more detailed discussion of interest rate risk, see Item 7A, below.

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New Technologies New technologies create performance risks that could impact our financial results or reputation.

A number of new technologies and new product offerings are being developed or implemented by the Company. Some of our existing technologies are being implemented in products and designs beyond our experience base. These technological expansions can create nontraditional performance risks to our operations. Failure of the technologies to work as predicted or unintended consequences of new designs or uses, could lead to cost overruns, project delays, financial penalties, or damage to our reputation.

Raw Material and Energy Cost and Availability Interruption in ordinary sources of supply or an inability to recover increases in energy and raw material costs from customers could result in lost sales or reduced profitability.

Hydrocarbons, including natural gas, are the primary feedstock for the production of hydrogen, carbon monoxide, and syngas. Energy, including electricity, natural gas, and diesel fuel for delivery trucks, is the largest cost component of the Company's business. Because the Company's industrial gas facilities use substantial amounts of electricity, energy price fluctuations could materially impact the Company's revenues and earnings. A disruption in the supply of energy or raw materials, whether due to market conditions, legislative or regulatory actions, natural events, or other disruption, could prevent the Company from meeting its contractual commitments, harming its business and financial results.

The Company's supply of crude helium for purification and resale is largely dependent upon natural gas production by crude helium suppliers. Lower natural gas production (which may result from natural gas pricing or supplier operating issues) or interruptions in sales from other crude helium suppliers, can reduce the Company's supplies of crude helium available for processing and resale to its customers.

The Electronics and Performance Materials segment uses a wide variety of raw materials, including alcohols, ethyleneamines, cyclohexylamine, acrylonitriles, and glycols. Shortages or price escalation in these materials could negatively impact financial results.

The Company typically contracts to pass through cost increases in energy and raw materials to its customers, but cost variability can still have a negative impact on its results. The Company may not be able to raise prices as quickly as costs rise, or competitive pressures may prevent full recovery. Increases in energy or raw material costs that cannot be passed on to customers for competitive or other reasons would negatively impact the Company's revenues and earnings. Even where costs are passed through, price increases can cause lower sales volume.

Regulatory Compliance The Company is subject to extensive government regulation in jurisdictions around the globe in which it does business. Changes in regulations addressing, among other things, environmental compliance, import/export restrictions, anti-bribery and corruption, and taxes, can negatively impact the Company's operations and financial results.

The Company is subject to government regulation in the United States and foreign jurisdictions in which it conducts its business. The application of laws and regulations to the Company's business is sometimes unclear. Compliance with laws and regulations may involve significant costs or require changes in business practice that could result in reduced profitability. Determination of noncompliance can result in penalties or sanctions that could also impact financial results. Compliance with changes in laws or regulations can require additional capital expenditures or increase operating costs. Export controls or other regulatory restrictions could prevent the Company from shipping its products to and from some markets or increase the cost of doing so. Export restrictions continue to attract external focus by multiple customs and export enforcement authorities. Changes in tax laws and regulations and international tax treaties could affect the financial results of the Company's businesses. Increasingly aggressive enforcement of anti-bribery and anti-corruption requirements, including the U.S. Foreign Corrupt Practices Act, the United Kingdom Bribery Act and the China Anti-Unfair Competition Law, could subject the Company to criminal or civil sanctions if a violation occurs. We have internal control policies and procedures to foster compliance with these laws, including compliance and training programs for our employees; however, the foregoing cannot eliminate the risk that violations could be committed by our employees, agents or joint venture partners.

Greenhouse Gases Legislative and regulatory responses to global climate change create financial risk.

Some of the Company's operations are within jurisdictions that have or are developing regulatory regimes governing emissions of greenhouse gases (GHG). These include existing and expanding coverage under the European Union Emissions Trading Scheme; mandatory reporting and reductions at manufacturing facilities in Alberta, Canada; and

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mandatory reporting and anticipated constraints on GHG emissions in Ontario, Canada and South Korea. In addition, the U.S. Environmental Protection Agency is regulating GHG emissions for new construction and major modifications to existing facilities.

Increased public concern may result in more international, U.S. federal, and/or regional requirements to reduce or mitigate the effects of GHG. Although uncertain, these developments could increase the Company's costs related to consumption of electric power, hydrogen production, and fluorinated gases production. The Company believes it will be able to mitigate some of the increased costs through its contractual terms, but the lack of definitive legislation or regulatory requirements prevents accurate estimate of the long-term impact on the Company. Any legislation that limits or taxes GHG emissions could impact the Company's growth, increase its operating costs, or reduce demand for certain of its products.

Environmental Compliance Costs and expenses resulting from compliance with environmental regulations may negatively impact the Company's operations and financial results.

The Company is subject to extensive federal, state, local, and foreign environmental and safety laws and regulations concerning, among other things, emissions in the air; discharges to land and water; and the generation, handling, treatment, and disposal of hazardous waste and other materials. The Company takes its environmental responsibilities very seriously, but there is a risk of environmental impact inherent in our manufacturing operations and transportation of chemicals. Future developments and more stringent environmental regulations may require the Company to make additional unforeseen environmental expenditures. In addition, laws and regulations may require significant expenditures for environmental protection equipment, compliance, and remediation. These additional costs may adversely affect financial results. For a more detailed description of these matters, see Narrative Description of the Company's Business Generally Environmental Controls, above.

We may not be able to successfully implement initiatives to improve productivity and streamline operations to control or reduce costs.

Achieving our long-term profitability and return goals depends significantly on our efforts to control or reduce our operating costs. Because many of our costs are affected by factors outside or substantially outside our control, we generally must seek to control or reduce costs through operating efficiency or other initiatives. Such initiatives are important to our success. If we are not able to identify and complete initiatives designed to control or reduce costs and increase operating efficiency, or if the cost savings initiatives we have implemented to date, or any future cost-savings initiatives, do not generate expected cost savings, our financial results could be adversely impacted.

Currency Fluctuations Changes in foreign currencies may adversely affect the Company's financial results.

The majority of the Company's sales are derived from outside the United States and denominated in foreign currencies. The Company also has significant production facilities that are located outside of the United States. Financial results therefore will be affected by changes in foreign currency rates. The Company uses certain financial instruments to mitigate these effects, but it is not cost-effective to hedge foreign currency exposure in a manner that would entirely eliminate the effects of changes in foreign exchange rates on earnings, cash flows, and fair values of assets and liabilities. Accordingly, reported sales, net earnings, cash flows, and fair values have been and in the future will be affected by changes in foreign exchange rates. For a more detailed discussion of currency exposure, see Item 7A, below.

Catastrophic Events Catastrophic events could disrupt the Company's operations or the operations of its suppliers or customers, having a negative impact on the Company's business, financial results, and cash flow.

The Company's operations could be impacted by catastrophic events outside the Company's control, including severe weather conditions such as hurricanes, floods, earthquakes, and storms, or acts of war and terrorism. Any such event could cause a serious business disruption that could affect the Company's ability to produce and distribute its products and possibly expose it to third-party liability claims. Additionally, such events could impact the Company's suppliers or customers, in which event energy and raw materials may be unavailable to the Company, or its customers may be unable to purchase or accept the Company's products and services. Any such occurrence could have a negative impact on the Company's operations and financial results.

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Operational Risks Operational and execution risks may adversely affect the Company's operations or financial results.

The Company's operation of its facilities, pipelines, and delivery systems inherently entails hazards that require continuous oversight and control, such as pipeline leaks and ruptures, fire, explosions, toxic releases, mechanical failures, or vehicle accidents. If operational risks materialize, they could result in loss of life, damage to the environment, or loss of production, all of which could negatively impact the Company's ongoing operations, reputation, financial results, and cash flow. In addition, the Company's operating results are dependent on the continued operation of its production facilities and its ability to meet customer requirements. Operating results are also dependent on the Company's ability to complete new construction projects on time, on budget, and in accordance with performance requirements. Failure to do so may expose the Company to loss of revenue, potential litigation, and loss of business reputation.

Information Security The security of the Company's Information Technology systems could be compromised, which could adversely affect its ability to operate.

We depend on information technology to enable us to operate efficiently and interface with customers as well as to maintain financial accuracy and efficiency. Our information technology capabilities are delivered through a combination of internal and outsourced service providers. If we do not allocate and effectively manage the resources necessary to build and sustain the proper technology infrastructure, we could be subject to transaction errors, processing inefficiencies, the loss of customers, business disruptions, or the loss of or damage to our intellectual property through security breach. As with all large systems, our information systems could be penetrated by outside parties intent on extracting information, corrupting information, or disrupting business processes. The Company's systems have in the past been and likely will in the future be subject to hacking attempts. To date, the Company is not aware of any impact on its operations or financial results from such attempts; however, unauthorized access could disrupt our business operations, result in the loss of assets, and have a material adverse effect on our business, financial condition, or results of operations.

The Company's business involves the use, storage, and transmission of information about its employees, vendors, and customers. The protection of such information, as well as the Company's information, is critical to the Company. The regulatory environment surrounding information security and privacy is increasingly demanding, with the frequent imposition of new and constantly changing requirements. The Company has established policies and procedures to help protect the security and privacy of this information. The Company also, from time to time, exports sensitive customer data and technical information to recipients outside the United States. Breaches of our security measures or the accidental loss, inadvertent disclosure, or unapproved dissemination of proprietary information or sensitive or confidential data about us or our customers, including the potential loss or disclosure of such information or data as a result of fraud, trickery, or other forms of deception, could expose us, our customers, or the individuals affected to a risk of loss or misuse of this information, result in litigation and potential liability for us, damage our reputation, or otherwise harm our business.

Litigation and Regulatory Proceedings The Company's financial results may be affected by various legal and regulatory proceedings, including those involving antitrust, tax, environmental, or other matters.

The Company is subject to litigation and regulatory proceedings in the normal course of business and could become subject to additional claims in the future, some of which could be material. The outcome of existing legal proceedings may differ from the Company's expectations because the outcomes of litigation, including regulatory matters, are often difficult to predict reliably. Various factors or developments can lead the Company to change current estimates of liabilities and related insurance receivables, where applicable, or make such estimates for matters previously not susceptible to reasonable estimates, such as a significant judicial ruling or judgment, a significant settlement, significant regulatory developments, or changes in applicable law. A future adverse ruling, settlement, or unfavorable development could result in charges that could have a material adverse effect on the Company's results of operations in any particular period. For a more detailed discussion of the legal proceedings involving the Company, see Item 3, below.

Asset Impairments The Company may be required to record impairment on its long-lived assets.

Weak demand may cause underutilization of the Company's manufacturing capacity or elimination of product lines; contract terminations or customer shutdowns may force sale or abandonment of facilities and equipment; and contractual provisions may allow customer buyout of facilities or equipment. These or other events associated with weak economic conditions or specific end market, product, or customer events may require the Company to record

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an impairment on tangible assets, such as facilities and equipment, or intangible assets, such as intellectual property or goodwill, which would have a negative impact on its financial results.

Competition Inability to compete effectively in a segment could adversely impact sales and financial performance.

The Company faces strong competition from several large global competitors and many smaller regional ones in many of its business segments. Introduction by competitors of new technologies, competing products, or additional capacity could weaken demand for or impact pricing of the Company's products, negatively impacting financial results. In addition, competitors' pricing policies could materially affect the Company's profitability or its market share.

Pension Liabilities The Company's results of operations and financial condition could be negatively impacted by its pension plans.

Adverse equity market conditions and volatility in the credit markets may have an unfavorable impact on the value of the Company's pension trust assets and its future estimated pension liabilities, significantly affecting the net periodic benefit costs of its pension plans and ongoing funding requirements for these plans. As a result, the Company's financial results and cash flow in any period could be negatively impacted. For information about potential impacts from pension funding and the use of certain assumptions regarding pension matters, see the discussion in Note 16, Retirement Benefits, to the consolidated financial statements, included in Item 8, below.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have not received any written comments from the Commission staff that remain unresolved.

ITEM 2. PROPERTIES

Air Products owns its principal administrative offices, which are our headquarters in Trexlertown, Pennsylvania and administrative offices in Hersham, U.K. and Santiago, Chile. The Company leases administrative offices in Ontario, Canada; Crewe, U.K.; Brussels, Belgium; Paris, France; Barcelona and Madrid, Spain; Rotterdam and Amsterdam, the Netherlands; Bochum, Germany; Moscow, Russia; Warsaw, Poland; São Paulo, Brazil; Shanghai, Beijing and Xi'an, China; Taipei, Taiwan; Kuala Lumpur, Malaysia; Kawasaki, Japan; Seoul, South Korea; and Singapore.

The following is a description of the properties used by our four business segments. We believe that, in general, our facilities are suitable and adequate for our current and anticipated future levels of operation and are adequately maintained.

Merchant Gases

Merchant Gases currently operates 300 production and distribution facilities in North and South America (98 are located on owned property), 152 facilities in Europe and Middle East and Africa (50 are on owned property), and 87 facilities within Asia (11 are on owned property). The production and distribution facilities include approximately 30 integrated sites that primarily serve the Tonnage Gases or Electronics businesses. These assets are also included in information provided for those businesses. We added 12 liquid CO₂ locations with the acquisition of EPCO Carbon Dioxide Products, Inc. in May of this year. Helium is processed at sites in Kansas and Texas and then distributed to/from transfill sites in the U.S., Canada, Europe, and Asia. Sales support offices are located at our global office centers above, at 9 leased properties in the U.S. and Canada, at 9 leased sites and at production plant sites in Europe, at 10 leased sites and at production plant sites in Asia and at regional production plant sites in South America.

Research and development (R&D) activities for this segment are conducted in Trexlertown, Pennsylvania; Basingstoke and Carrington in the U.K.; a leased site in British Columbia, Canada; and a leased site in Shanghai, China.

Tonnage Gases

Tonnage Gases operates over 65 plants (9 are located on owned property) in North and South America that produce over 300 standard tons per day of product. Over 40 of these facilities produce or recover hydrogen. Many of the hydrogen facilities support the major pipeline systems located in Los Angeles, California and Alberta, Canada; and along the United States Gulf Coast through the Gulf Coast Connection Pipeline, which interconnects Texas and Louisiana pipeline networks. The segment also operates 30 tonnage plants in Europe, the Middle East, and Africa

and 26 tonnage plants within Asia. The majority of the sites in this segment are under structured long-term leasehold type agreements. Sales support offices are located at our headquarters in Trexlertown, Pennsylvania and leased

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offices in Texas, Louisiana, California, and Calgary, Alberta in North America as well as in Hersham, U.K.; Rotterdam, the Netherlands; Moscow, Russia; Shanghai, China; Singapore; Bahrain; and Doha, Qatar.

Electronics and Performance Materials

The Electronics business within this segment produces, packages, and stores nitrogen, specialty gases, and electronic chemicals, and manufactures equipment at 40 sites in the United States (9 of which are owned and the majority of the remaining are located on customer sites), nine leased facilities in Europe and the Middle East, and 55 facilities in Asia (13 of which are owned, 28 of which are located on customer sites and the remainder are leased or term grants).

The Performance Materials division within this segment operates 5 production facilities in the United States, 3 in Europe and 4 in Asia. Seven of the Performance Materials facility sites are owned.

The segment conducts R&D related activities at 11 locations worldwide, including Trexlertown, Pennsylvania; Carlsbad, California; Tempe, Arizona; Utrecht, the Netherlands; at 3 sites in Germany; Chubei and Hsin Chu, Taiwan; Shanghai, China; and Kawasaki, Japan.

Equipment and Energy

The Equipment division operates at eight facilities in the U.S., one in Europe and three in Asia. We manufacture a significant portion of the world's supply of LNG equipment at our Wilkes-Barre, Pennsylvania, site. In early 2014, the Company expects to open its new LNG manufacturing facility at the Port of Manatee, Florida. Air separation columns and cold boxes for Company-owned facilities and third-party sales are produced by operations in Caojing, China and Tanjung Langsat, Malaysia as well as in the Wilkes-Barre facility. Cryogenic transportation containers for liquid helium are manufactured and reconstructed at facilities in eastern Pennsylvania; Liberal, Kansas; and Istres, France. Equipment commercial and engineering team members are located at offices in Trexlertown and Bethlehem, Pennsylvania; Hersham, U.K.; Pune, India; and Shanghai, China.

The Energy division produces electric power at various facilities globally, including a gas-fueled power generation facility in Thailand, in which the Company has a 48.8% interest. Flue gas desulfurization operations are conducted at the Pure Air facility in Chesterton, Indiana. The Company is constructing a 50MW renewable energy facility in Tees Valley, U.K. with the expected start-up in 2014 and has announced plans to build a second renewable energy facility on an adjacent site. Energy commercial and engineering team members are located at Trexlertown, Pennsylvania, Hersham and Tees Valley, U.K.

The Company or its affiliates own approximately 33% of the real estate in this segment and lease the remaining locations.

ITEM 3. LEGAL PROCEEDINGS

In the normal course of business, the Company and its subsidiaries are involved in various legal proceedings, including contract, product liability, intellectual property, and insurance matters. Although litigation with respect to these matters is routine and incidental to the conduct of our business, such litigation could result in large monetary awards, especially if a civil jury is allowed to determine compensatory and/or punitive damages. However, we believe that litigation currently pending to which we are a party will be resolved without any material adverse effect on our financial position, earnings, or cash flows.

From time to time, we are also involved in proceedings, investigations, and audits involving governmental authorities in connection with environmental, health, safety, competition, and tax matters.

The Company is a party to proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (the federal Superfund law); the Resource Conservation and Recovery Act (RCRA); and similar state environmental laws relating to the designation of certain sites for investigation or remediation. Presently there are approximately 33 sites on which a final settlement has not been reached where the Company, along with others, has been designated a Potentially Responsible Party by the Environmental Protection Agency or is otherwise engaged in investigation or remediation, including cleanup activity at certain of its current or former manufacturing sites. We do not expect that any sums we may have to pay in connection with these matters would have a material adverse effect on our consolidated financial position. Additional information on the Company's environmental exposure is included under Narrative Description of the Company's Business Generally Environmental Controls.

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In September 2010, the Brazilian Administrative Council for Economic Defense (CADE) issued a decision against our Brazilian subsidiary, Air Products Brasil Ltda., and several other Brazilian industrial gas companies for alleged anticompetitive activities. CADE imposed a civil fine of R\$179.2 million (approximately \$81 million at 30 September 2013) on Air Products Brasil Ltda. This fine was based on a recommendation by a unit of the Brazilian Ministry of Justice whose investigation began in 2003, alleging violation of competition laws with respect to the sale of industrial and medical gases. The fines are based on a percentage of the Company's total revenue in Brazil in 2003.

We have denied the allegations made by the authorities and filed an appeal in October 2010 to the Brazilian courts. Certain of the Company's defenses, if successful, could result in the matter being dismissed with no fine against us. The Company, with advice of its outside legal counsel, has assessed the status of this matter and has concluded that, although an adverse final judgment after exhausting all appeals is reasonably possible, such a judgment is not probable. As a result, no provision has been made in the consolidated financial statements.

While we do not expect that any sums we may have to pay in connection with these or any other legal proceeding would have a material adverse effect on our consolidated financial position or net cash flows, a future charge for regulatory fines or damage awards could have a significant impact on our net income in the period in which it is recorded.

ITEM 4. NOT APPLICABLE**PART II****ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock (ticker symbol APD) is listed on the New York Stock Exchange. Our transfer agent and registrar is American Stock Transfer & Trust Company, 6201 15th Avenue, Brooklyn, New York 11219, telephone (800) 937-5449 (U.S. and Canada) or (718) 921-8124 (all other locations); Internet website www.amstock.com; and e-mail address info@amstock.com. As of 31 October 2013, there were 7,040 record holders of our common stock. Quarterly stock prices, as reported on the New York Stock Exchange composite tape of transactions, and dividend information for the last two fiscal years appear below. Cash dividends on the Company's common stock are paid quarterly. Our objective is to pay dividends consistent with the reinvestment of earnings necessary for long-term growth. It is our expectation that we will continue to pay comparable cash dividends in the future.

Quarterly Stock Information

2013	High	Low	Close	Dividend
First	\$86.31	\$76.78	\$84.02	\$0.64
Second	90.34	84.15	87.12	0.71
Third	97.12	84.04	91.57	0.71
Fourth	114.75	90.12	106.57	0.71
				\$2.77
2012	High	Low	Close	Dividend
First	\$90.20	\$72.26	\$85.19	\$0.58
Second	92.48	85.60	91.80	0.64
Third	92.79	76.11	80.73	0.64
Fourth	85.83	77.21	82.70	0.64
				\$2.50

Purchases of Equity Securities by the Issuer

On 15 September 2011, the Board of Directors authorized the repurchase of up to \$1.0 billion of our outstanding common stock. This program does not have a stated expiration date. We repurchase shares pursuant to Rules 10b5-1 and 10b-18 under the Securities Exchange Act of 1934, as amended, through repurchase agreements established with several brokers. During fiscal year 2013, we purchased 5.7 million of our outstanding shares at a cost of \$461.6 million. No purchases were made during the fourth quarter of 2013. At 30 September 2013, \$485.3 million in share

repurchase authorization remains.

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Performance Graph

The performance graph below compares the five-year cumulative returns of the Company's common stock with those of the Standard & Poor's 500 and Dow Jones Chemicals Composite Indices. The figures assume an initial investment of \$100 and the reinvestment of all dividends.

COMPARISON OF FIVE YEAR CUMULATIVE SHAREHOLDER RETURN

Air Products, S&P 500, and Chemicals Composite Indices

Comparative Growth of a \$100 Investment

(Assumes Reinvestment of All Dividends)

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(Millions of dollars, except per share)	2013 ^(A)	2012 ^(A)	2011 ^(A)	2010 ^(A)	2009 ^(A)
Operating Results					
Sales	\$10,180	\$9,612	\$9,674	\$8,616	\$7,847
Cost of sales	7,472	7,052	7,098	6,289	5,819
Selling and administrative	1,066	947	942	887	882
Research and development	134	126	119	115	116
Business restructuring and cost reduction plans	232	327			298
Operating income	1,324	1,282	1,508	1,268	724
Equity affiliates income	168	154	154	127	112
Interest expense	142	124	116	122	122
Income tax provision	308	287	375	306	149
Income from continuing operations attributable to Air Products	1,004	999	1,134	942	554
Net income attributable to Air Products	994	1,167	1,224	1,029	631
Basic earnings per common share attributable to Air Products:					
Income from continuing operations	4.79	4.73	5.33	4.44	2.64
Net income	4.74	5.53	5.75	4.85	3.01
Diluted earnings per common share attributable to Air Products:					
Income from continuing operations	4.73	4.66	5.22	4.34	2.59
Net income	4.68	5.44	5.63	4.74	2.96
Year-End Financial Position					
Plant and equipment, at cost	\$19,530	\$18,046	\$16,859	\$15,934	\$15,387
Total assets	17,850	16,942	14,291	13,506	13,029
Working capital	212	726	848	790	494
Total debt ^(B)	6,274	5,292	4,562	4,128	4,500
Redeemable noncontrolling interest	376	393			
Air Products shareholders equity	7,042	6,477	5,796	5,547	4,792
Total equity	7,199	6,623	5,939	5,698	4,930
Financial Ratios					
Return on average Air Products shareholders equity ^(C)	15.3%	16.1%	19.4%	18.2%	11.5%
Operating margin	13.0%	13.3%	15.6%	14.7%	9.2%
Selling and administrative as a percentage of sales	10.5%	9.9%	9.7%	10.3%	11.2%
Total debt to total capitalization ^{(B)(D)}	45.3%	43.0%	43.4%	42.0%	47.7%
Other Data					
Depreciation and amortization	\$907	\$841	\$834	\$827	\$807
Capital expenditures on a GAAP basis ^(E)	1,748	2,560	1,366	1,092	1,194
Capital expenditures on a non-GAAP basis ^(E)	1,997	2,778	1,539	1,256	1,433
Cash provided by operating activities	1,553	1,765	1,710	1,485	1,286
Cash used for investing activities	1,697	2,435	1,170	1,014	998
Cash provided by (used for) financing activities	115	(78)	(485)	(580)	101
Dividends declared per common share	2.77	2.50	2.23	1.92	1.79
Weighted average common shares outstanding (in millions)	210	211	213	212	210
Weighted average common shares outstanding assuming dilution (in millions)	212	215	218	217	214
Book value per common share at year-end	\$33.35	\$30.48	\$27.57	\$25.94	\$22.68
Shareholders at year-end	7,000	7,500	7,900	8,300	8,600
Employees at year-end ^(F)	21,600	21,300	18,900	18,300	18,900

^(A) Certain items which management does not believe to be indicative of on-going business trends are considered non-GAAP items in our results discussions. For 2013, these items include: (i) a charge to operating income of \$232 (\$158 after-tax, or \$.74 per share) related to business restructuring and cost reduction plans, (ii) expenses of \$10 (\$6 after-tax, or \$.03 per share) related to advisory costs. For 2012, these items include: (i) a charge to operating income of \$327 (\$222 after-tax, or \$1.03 per share) related to business restructuring and cost reduction plans, (ii) a gain of \$86 (\$55 after-tax, or \$.25 per share) related to the gain on our previously held equity interest in DA NanoMaterials, (iii) a charge of \$10 (\$6 after-tax, or \$.03 per share) related to a customer bankruptcy, (iv) a tax expense of \$44 (\$.20 per share) for a Spanish tax settlement,

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(v) a tax benefit of \$58 (\$.27 per share) for a favorable Spanish tax ruling.

For 2011 and 2010, these items include: expenses of \$49 (\$32 after-tax, or \$.14 per share) and \$96 (\$60 after-tax, or \$.28 per share), respectively, related to the net loss on Airgas transaction.

For 2009, these items include: (i) a charge of \$298 (\$200 after-tax, or \$.94 per share) related to the global cost reduction plan, (ii) an expense of \$32 (\$21 after-tax, or \$.10 per share) related to a customer bankruptcy and other asset actions, (iii) an expense of \$8 (\$5 after-tax, or \$.02 per share) related to a pension settlement loss.

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- (B) Total debt includes long-term debt, current portion of long-term debt, and short-term borrowings as of the end of the year.
- (C) Calculated using income from continuing operations attributable to Air Products and five-quarter average Air Products shareholders' equity.
- (D) Total capitalization includes total debt plus total equity plus redeemable noncontrolling interest as of the end of the year.
- (E) Capital expenditures on a GAAP basis include additions to plant and equipment, investment in and advances to unconsolidated affiliates, and acquisitions. The Company utilizes a non-GAAP measure in the computation of capital expenditures and includes spending associated with facilities accounted for as capital leases and purchases of noncontrolling interests. Refer to page 32 for a reconciliation of the GAAP to non-GAAP measures for 2013, 2012, and 2011. For 2010, the GAAP measure was adjusted by \$123 and \$42 for spending associated with facilities accounted for as capital leases and purchases of noncontrolling interests, respectively. For 2009, the GAAP measure was adjusted by \$239 for spending associated with facilities accounted for as capital leases.
- (F) Includes full- and part-time employees from continuing and discontinued operations.

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

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The following discussion should be read in conjunction with the consolidated financial statements and the accompanying notes contained in this report. All comparisons in the discussion are to the corresponding prior year unless otherwise stated. All amounts presented are in accordance with U.S. generally accepted accounting principles (GAAP), except as noted. All amounts are presented in millions of dollars, except for share data, unless otherwise indicated.

Items such as income from continuing operations attributable to Air Products, net income attributable to Air Products, and diluted earnings per share attributable to Air Products are simply referred to as income from continuing operations, net income, and diluted earnings per share throughout this Management's Discussion and Analysis, unless otherwise stated.

The discussion of results that follows includes comparisons to non-GAAP financial measures. For 2013, the non-GAAP measures exclude the fourth quarter business restructuring and cost reduction plan and advisory costs. For 2012, the non-GAAP measures exclude the 2012 business restructuring and cost reduction plans (the photovoltaic (PV) market actions charge, the polyurethane intermediates (PUI) business actions charge, and the cost reduction plan charge), the customer bankruptcy charge, the gain on the previously held equity interest in DuPont Air Products NanoMaterials LLC (DA NanoMaterials), the Spanish tax settlement, and the Spanish tax ruling. For 2011, the non-GAAP measures exclude the net loss on Airgas transaction. The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures that our management uses internally to evaluate our baseline performance on a comparable basis. The reconciliation of reported GAAP results to non-GAAP measures is presented on pages 29-31. Descriptions of the excluded items appear on pages 22-24.

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BUSINESS OVERVIEW

Air Products and Chemicals, Inc. and its subsidiaries serve energy, electronics, chemicals, metals, and manufacturing customers globally with a unique portfolio of products, services, and solutions that include atmospheric, process and specialty gases; performance materials; equipment; and technology. Geographically diverse, with operations in over 50 countries, in 2013 we had sales of \$10.2 billion, assets of \$17.9 billion, and a worldwide workforce of approximately 21,600 employees.

We organize our operations into four reportable business segments: Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy. Refer to Note 25, Business Segment and Geographic Information, to the consolidated financial statements for additional details on our reportable business segments.

2013 IN SUMMARY

In 2013, we achieved both sales and earnings growth. Our results did fall short of the expectations we set at the beginning of the year as a result of slower than expected global economic growth. Global manufacturing grew approximately 2% for the year and limited the opportunities for growth, particularly in our Europe and Asia Merchant Gases and Electronics businesses. Overall, sales increased by 6% resulting from acquisitions and higher energy cost pass-through. Our underlying sales were 1% higher on strength in our Tonnage Gases businesses, higher Performance Materials volumes, and LNG equipment activity partially offset by weakness in our Electronics equipment area. The impact from winding down our PUI business decreased underlying sales by 2%. Our operating income and diluted earnings per share both increased 2% versus the prior year.

While the difficult global economic environment persisted, we took actions to offset this weakness and to improve results in the future. We delivered significant cost savings from the 2012 European focused reorganization and committed to additional actions aimed at reducing costs through product exits and asset rationalizations, as well as organizational improvements. The additional actions are focused on improving our Electronics business, restructuring our global operations function, and further optimizing our cost structure in Europe. Finally, we remain on track to exit our PUI business in fiscal year 2014 as we continue to manage our business portfolio.

Highlights for 2013

Sales of \$10,180.4 increased 6%, or \$568.7, as acquisitions and higher energy contractual cost pass-through to customers were partially offset by lower volumes from our previously announced decision to exit the PUI business.

Operating income of \$1,324.4 increased 3%, or \$42.0. On a non-GAAP basis, operating income of \$1,566.1 increased 2%, or \$32.4, with acquisitions and favorable volume mix partially offset by higher energy and distribution costs and higher operating costs, including pensions.

Income from continuing operations of \$1,004.2 increased 1%, or \$5.0, and diluted earnings per share from continuing operations of \$4.73 increased 2%, or \$.07. On a non-GAAP basis, income from continuing operations of \$1,168.5 increased 1%, or \$9.9, and diluted earnings per share from continuing operations of \$5.50 increased 2%, or \$.10. A summary table of changes in diluted earnings per share, including a non-GAAP reconciliation, is presented below.

Capital spending was \$1,747.8 for the year ended 30 September 2013. On a non-GAAP basis, capital spending of \$1,996.7 decreased 28%, primarily from the prior year acquisition of Indura S.A.

We purchased 5.7 million of our outstanding shares at a cost of \$461.6.

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We increased our quarterly dividend by 11% from \$.64 to \$.71 per share. This represents the 31st consecutive year that we have increased our dividend payment.

For a discussion of the challenges, risks, and opportunities on which management is focused, refer to our 2014 Outlook discussions provided on pages 20 and 21 in the Management's Discussion and Analysis that follows.

Table of Contents**Changes in Diluted Earnings per Share Attributable to Air Products**

	2013	2012	Increase (Decrease)
Diluted Earnings per Share			
Net income	\$4.68	\$5.44	\$(.76)
Income (Loss) from discontinued operations	(.05)	.78	(.83)
Income from Continuing Operations GAAP Basis	\$4.73	\$4.66	\$0.07
Business restructuring and cost reduction plans	.74	1.03	(.29)
Advisory costs	.03		.03
Customer bankruptcy		.03	(.03)
Gain on previously held equity interest		(.25)	.25
Q1 Spanish tax settlement		.20	(.20)
Q2 Spanish tax ruling		(.27)	.27
Income from Continuing Operations Non-GAAP Basis	\$5.50	\$5.40	\$1.10
Operating income (after-tax)			
Underlying business			
Volume (including PUI exit impact)			.08
Price/raw materials			(.14)
Costs/other			(.03)
Acquisitions			.19
Currency			.01
Operating Income			.11
Other (after-tax)			
Equity affiliates income			.05
Interest expense			(.06)
Noncontrolling interests			(.06)
Average shares outstanding			.06
Other			(.01)
Total Change in Diluted Earnings per Share from Continuing Operations Non-GAAP Basis			\$1.10

2014 OUTLOOK

Our 2014 outlook for global economic growth is modest, with a range from 2% - 4%. We expect that the U.S. will grow 2% - 4% as it continues to face unresolved fiscal challenges, weak job growth, low consumer confidence, and lower global demand. We are hopeful that an economic recovery will begin in Europe with growth of 0% - 2%. In Asia, we expect a gradual acceleration in growth, particularly in China, of 5% - 7%. In South America, we expect growth of 1% - 3%, which is largely dependent on global demand driving exports.

We anticipate higher earnings in 2014 from new plant onstreams, higher LNG activity, and volume loading on existing assets, recognizing that the last factor will be most influenced by the economy. Pension expense should be lower as a result of higher interest rates. These positive impacts will be partially offset by higher maintenance expense and more shares outstanding. We also expect lower earnings from the shutdown of our PUI business. The cost reduction actions implemented in 2012 and 2013 should provide benefits in 2014 and beyond.

Outlook by Segment

In Merchant Gases, volume growth will continue to be influenced by the economy. We have available capacity in each region and expect that an improving economy will increase loading on these assets and drive growth. We expect each region of the business to benefit from the 2013 cost reduction actions.

Tonnage Gases is expected to benefit from new plant onstreams supported by long-term take-or-pay contracts. However, we also expect higher planned plant maintenance costs from scheduled customer outages and the unfavorable impact of our exit from the PUI business.

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We expect that Electronics growth will begin to rebound in 2014 following a weak 2012 and 2013. Overall, we expect silicon growth of 3% 5% in 2014. Additionally, we expect the business to benefit from the 2013 cost reduction actions and product line restructuring. For Performance Materials, we anticipate typical seasonality in the first quarter of 2014, with volume growth improving due to a better economy.

Equipment and Energy results are expected to improve due to continued higher activity in our LNG equipment business. The above guidance should be read in conjunction with the section entitled Forward-Looking Statements.

RESULTS OF OPERATIONS**Discussion of Consolidated Results**

	2013	2012	2011
Sales	\$10,180.4	\$9,611.7	\$9,673.7
Operating income GAAP Basis	1,324.4	1,282.4	1,508.1
Operating margin GAAP Basis	13.0%	13.3%	15.6%
Equity affiliates income	167.8	153.8	154.3
Operating income Non-GAAP Basis	1,566.1	1,533.7	1,556.6
Operating margin Non-GAAP Basis	15.4%	16.0%	16.1%

Sales

	% Change from Prior Year	
	2013	2012
Underlying business		
Volume	(1)%	1%
Price	%	%
Acquisitions	5%	2%
Energy and raw material cost pass-through	2%	(2)%
Currency	%	(2)%
Total Consolidated Change	6%	(1)%

2013 vs. 2012

Sales of \$10,180.4 increased 6%, or \$568.7. Underlying business decreased 1%, primarily due to lower volumes resulting from our previous decision to exit the PUI business and lower Electronics demand, partially offset by higher volumes in the Tonnage Gases, Performance Materials, and Equipment businesses. The acquisitions of Indura S.A. and DA NanoMaterials increased sales by 5%. Higher energy and raw material contractual cost pass-through to customers increased sales by 2%.

2012 vs. 2011

Sales of \$9,611.7 decreased 1%, or \$62.0. Underlying business increased 1%, primarily due to higher volumes in our Tonnage Gases segment, which were partially offset by lower volumes in the Merchant Gases segment, particularly in Europe. Acquisitions increased sales by 2%. Lower energy and raw material contractual cost pass-through to customers and currency both decreased sales by 2%.

Operating Income**2013 vs. 2012**

Operating income of \$1,324.4 increased 3%, or \$42.0. Current year operating income included a charge of \$231.6 for a business restructuring and cost reduction plan and \$10.1 for advisory costs. Prior year operating income included a charge of \$327.4 for business restructuring and cost reduction plans, a \$9.8 charge for a customer bankruptcy, and the gain on the previously held equity interest in DA NanoMaterials of \$85.9. On a non-GAAP basis, operating income of \$1,566.1 increased 2%, or \$32.4. The increase was primarily due to acquisitions of \$54, higher volumes of \$24, and favorable currency translation and foreign exchange impacts of \$2, partially offset by \$40 from unfavorable higher energy and distribution costs net of pricing, and higher operating costs of \$20, including the impact from pensions. Operating income increased by \$12 from higher gains on the sale of assets and investments.

Table of Contents**2012 vs. 2011**

Operating income of \$1,282.4 decreased 15%, or \$225.7. Operating income in 2012 includes a charge of \$327.4 for business restructuring and cost reduction plans, a \$9.8 charge for a customer bankruptcy, and the gain on the previously held equity interest in DA NanoMaterials of \$85.9. Operating income in 2011 includes a \$48.5 net loss related to the Airgas transaction. On a non-GAAP basis, operating income of \$1,533.7 decreased 1%, or \$22.9. The decrease was primarily due to unfavorable volumes, including acquisitions, of \$39 and unfavorable currency translation and foreign exchange impacts of \$30, partially offset by lower costs of \$31 and higher recovery of raw material costs in pricing of \$15. The decrease in volumes was primarily from lower Merchant Gases volumes and unfavorable volume mix due to lower LNG plant sales.

Equity Affiliates Income**2013 vs. 2012**

Income from equity affiliates of \$167.8 increased \$14.0, primarily due to better performance in our Mexican equity affiliate.

2012 vs. 2011

Income from equity affiliates of \$153.8 decreased \$.5.

Selling and Administrative Expense**2013 vs. 2012**

Selling and administrative expense of \$1,066.3 increased \$119.5, or 13%, primarily due to the acquisition of Indura S.A. Selling and administrative expense as a percent of sales increased to 10.5% from 9.9%, also due to Indura S.A.

2012 vs. 2011

Selling and administrative expense of \$946.8 increased \$5.1, or 1%, primarily due to acquisitions and inflation, partially offset by lower incentive compensation costs and favorable currency. Selling and administrative expense as a percent of sales increased to 9.9% from 9.7%.

Research and Development**2013 vs. 2012**

Research and development expense of \$133.7 increased 6%, or \$7.3, primarily due to inflation and the acquisition of DA NanoMaterials. Research and development expense as a percent of sales was 1.3% in 2013 and 2012.

2012 vs. 2011

Research and development expense of \$126.4 increased 6%, or \$7.6, primarily due to the DA NanoMaterials acquisition. Research and development expense as a percent of sales increased to 1.3% from 1.2%.

Business Restructuring and Cost Reduction Plans

We recorded charges in 2013 and 2012 for business restructuring and cost reduction plans. The charges for these plans are reflected on the consolidated income statements as Business restructuring and cost reduction plans. The charges for these plans are excluded from segment operating income.

2013 Plan

During the fourth quarter of 2013, we recorded an expense of \$231.6 (\$157.9 after-tax, or \$.74 per share) reflecting actions to better align our cost structure with current market conditions. These charges include \$100.4 for asset actions and \$58.5 for the final settlement of a long-term take-or-pay silane contract primarily impacting the Electronics business due to continued weakness in the PV and light-emitting diode (LED)

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markets. In addition, \$71.9 was recorded for severance, benefits, and other contractual obligations associated with the elimination of approximately 700 positions and executive changes. These charges primarily impact our Merchant Gases businesses and corporate functions. The actions are in response to weaker than expected business conditions in Europe and Asia, reorganization of our operations and functional areas, and previously announced senior executive changes. The planned actions are expected to be completed by the end of fiscal year 2014. We expect \$45 in savings in 2014. Beyond 2014, we expect these actions to provide approximately \$75 in annual savings.

2012 Plans

In 2012, we recorded an expense of \$327.4 (\$222.4 after-tax, or \$1.03 per share) for business restructuring and cost reduction plans in our PUI, Electronics, and European Merchant businesses.

During the second quarter of 2012, we recorded an expense of \$86.8 (\$60.6 after-tax, or \$.28 per share) for actions to remove stranded costs resulting from our decision to exit the Homecare business, the reorganization of the

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Merchant business, and actions taken to right size our European cost structure in light of the challenging economic outlook. The planned actions are complete and provided approximately \$60 in annual savings in 2013.

During the fourth quarter of 2012, we took actions in the PUI business to improve costs, resulting in a net expense of \$54.6 (\$34.8 after-tax, or \$.16 per share), and ultimately exit the business. Our PUI facility in Pasadena, Texas, is currently being dismantled, with completion expected in fiscal year 2014. The costs to dismantle are expensed as incurred and are reflected in continuing operations in the Tonnage Gases business segment.

During the fourth quarter of 2012, we completed an assessment of our position in the PV market, resulting in \$186.0 of expense (\$127.0 after-tax, or \$.59 per share) primarily related to the Electronics and Performance Materials business segment. Included in the charge was an accrual of \$93.5 for an offer that we made to terminate a long-term take-or-pay supply contract to purchase silane. As noted above, a final settlement was reached with the supplier in the fourth quarter of 2013.

Refer to Note 4, Business Restructuring and Cost Reduction Plans, to the consolidated financial statements for additional details on these actions.

Business Combinations

2013 Business Combinations

We completed three acquisitions in 2013. The acquisitions were accounted for as business combinations, and their results of operations were consolidated within their respective segments after the acquisition dates. The aggregate purchase price, net of cash acquired, for these acquisitions was \$233 and resulted in recognition of \$68 of goodwill, none of which is deductible for tax purposes.

On 30 August 2013, we acquired an air separation unit and integrated gases liquefier in Guiyang, China. This acquisition included a long-term sale of gas contract within our Tonnage Gases segment and provided our Merchant Gases segment with additional liquid capacity in the region. On 31 May 2013, we acquired EPCO Carbondioxide Products, Inc. (EPCO), the largest independent U.S. producer of liquid carbon dioxide (CO₂). This acquisition expanded our North American offerings of bulk industrial process gases in the Merchant Gases business segment. On 1 April 2013, we acquired Wuxi Chem-Gas Company, Ltd. (WCG). This acquisition provided our Merchant Gases segment with additional gases presence in the Jiangsu Province of China.

2012 Business Combinations

Indura S.A.

In July 2012, we acquired a 64.8% controlling equity interest in the outstanding shares of Indura S.A. Following the acquisition date, 100% of the Indura S.A. results are consolidated in our financial statements within the Merchant Gases business segment. The portion of the business that is not owned by the Company is recorded as noncontrolling interests. We paid cash consideration in Chilean pesos (CLP) of 345.5 billion (\$690) and assumed debt of CLP113.8 billion (\$227) for these interests. As of 30 September 2013, we hold a 67.2% interest.

Refer to Note 5, Business Combinations, to the consolidated financial statements for additional details on this transaction.

DA NanoMaterials LLC

On 2 April 2012, we closed on the acquisition agreement with E.I. DuPont de Nemours and Co., Inc. to acquire their 50% interest in our joint venture, DA NanoMaterials. Beginning in the third quarter of 2012, the results of DA NanoMaterials were consolidated within our Electronics and Performance Materials business segment.

Prior to the acquisition date, we accounted for our 50% interest in DA NanoMaterials as an equity-method investment. The year ended 30 September 2012 included a gain of \$85.9 (\$54.6 after-tax, or \$.25 per share) as a result of revaluing our previously held equity interest to fair market value as of the acquisition date. Refer to Note 5, Business Combinations, to the consolidated financial statements for additional details on this transaction.

Net Loss on Airgas Transaction

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For the year ended 30 September 2011, \$48.5 (\$31.6 after-tax, or \$.14 per share) in net loss was recognized related to the Airgas transaction. Refer to Note 6, Airgas Transaction, to the consolidated financial statements for additional details.

Customer Bankruptcy

As a result of events which occurred during the fourth quarter of 2012, we recognized a charge of \$9.8 (\$6.1 after-tax, or \$.03 per share) primarily related to the write-off of on-site assets due to a customer bankruptcy and mill

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shutdown. The customer, which primarily received products from the Tonnage Gases segment, filed for bankruptcy in May 2012 and announced the mill shutdown in August 2012.

Pension Settlement Loss

Our U.S. supplemental pension plan provides for a lump sum benefit payment option at the time of retirement, or for corporate officers, six months after the retirement date. Pension settlements are recognized when cash payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. The participant's vested benefit is considered fully settled upon cash payment of the lump sum. We recognized \$12.4 of settlement charges in 2013.

Advisory Costs

During the fourth quarter of 2013, we incurred legal and other advisory fees of \$10.1 (\$6.4 after-tax, or \$.03 per share) in connection with our response to the rapid acquisition of a large position in shares of our common stock by Pershing Square Capital Management LLC and its affiliates (Pershing Square). These fees, which are reflected on the consolidated income statements as Advisory costs, include costs incurred before and after Pershing Square's disclosure of its holdings and cover advisory services related to the adoption of the Shareholders Rights Plan, preparation for a potential proxy solicitation campaign, and entering into an agreement with Pershing Square.

Other Income (Expense), Net

Items recorded to other income (expense), net arise from transactions and events not directly related to our principal income earning activities. The detail of other income (expense), net is presented in Note 23, Supplemental Information, to the consolidated financial statements.

2013 vs. 2012

Other income (expense), net of \$70.2 increased \$23.1, primarily due to higher gains from the sale of a number of small assets and investments and a favorable commercial contract settlement, partially offset by lower government grants. Otherwise, no individual items were significant in comparison to the prior year.

2012 vs. 2011

Other income (expense), net of \$47.1 increased \$5.4, primarily due to favorable foreign exchange and reimbursements from government grants for expense, partially offset by lower gains from the sale of assets. Otherwise, no individual items were significant in comparison to the prior year.

Interest Expense

	2013	2012	2011
Interest incurred	\$167.6	\$153.9	\$138.2
Less: Capitalized interest	25.8	30.2	22.7
Interest Expense	\$141.8	\$123.7	\$115.5

2013 vs. 2012

Interest incurred increased \$13.7. The increase was driven primarily by a higher average debt balance for \$41, partially offset by a lower average interest rate on the debt portfolio of \$24. The change in capitalized interest was driven by a decrease in project spending and a lower average interest rate.

2012 vs. 2011

Interest incurred increased \$15.7. The increase was driven primarily by a higher average debt balance and debt issuance costs related to the Indura S.A. acquisition, partially offset by the impact of a stronger dollar on the translation of foreign currency interest. The change in capitalized interest was driven by an increase in project spending which qualified for capitalization.

Effective Tax Rate

The effective tax rate equals the income tax provision divided by income from continuing operations before taxes. Refer to Note 22, Income Taxes, to the consolidated financial statements for details on factors affecting the effective tax rate.

2013 vs. 2012

On a GAAP basis, the effective tax rate was 22.8% and 21.9% in 2013 and 2012, respectively. The current year rate includes income tax benefits of \$73.7 related to the business restructuring and cost reduction plans and \$3.7 for the advisory costs. The prior year rate includes income tax benefits of \$105.0 related to the business restructuring and cost reduction plans, \$58.3 related to the second quarter Spanish tax ruling, and \$3.7 related to the customer

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bankruptcy charge, offset by income tax expense of \$43.8 related to the first quarter Spanish tax settlement and \$31.3 related to the gain on the previously held equity interest in DA NanoMaterials. Refer to Note 4, Business Restructuring and Cost Reduction Plans; Note 5, Business Combinations; Note 22, Income Taxes; and Note 23, Supplemental Information, to the consolidated financial statements for details on these transactions. On a non-GAAP basis, the effective tax rate was 24.2% in both 2013 and 2012.

2012 vs. 2011

On a GAAP basis, the effective tax rate was 21.9% and 24.3% in 2012 and 2011, respectively. The tax rate in 2012 includes income tax benefits of \$105.0 related to the business restructuring and cost reduction plans, \$58.3 related to the second quarter Spanish tax ruling, and \$3.7 related to the customer bankruptcy charge, offset by income tax expense of \$43.8 related to the first quarter Spanish tax settlement and \$31.3 related to the gain on the previously held equity interest in DA NanoMaterials. Refer to Note 4, Business Restructuring and Cost Reduction Plans; Note 5, Business Combinations; Note 22, Income Taxes; and Note 23, Supplemental Information, to the consolidated financial statements for details on these transactions. The tax rate in 2011 includes an income tax benefit of \$16.9 related to the Airgas transaction. Refer to Note 6, Airgas Transaction, to the consolidated financial statements for details on this transaction. On a non-GAAP basis, the effective tax rate was 24.2% and 24.6% in 2012 and 2011, respectively.

Discontinued Operations

During the second quarter of 2012, the Board of Directors authorized the sale of our Homecare business, which had previously been reported as part of the Merchant Gases operating segment.

On 30 April 2012, we sold the majority of our Homecare business to The Linde Group for sale proceeds of 590 million (\$777) and recognized a gain of \$207.4 (\$150.3 after-tax, or \$.70 per share). During the third quarter of 2012, an impairment charge of \$33.5 (\$29.5 after-tax, or \$.14 per share) was recorded to write down the remaining business, which is primarily in the United Kingdom and Ireland, to its estimated net realizable value. In the fourth quarter of 2013, we recorded an additional charge of \$18.7 (\$13.6 after-tax, or \$.06 per share) to update our estimate of the net realizable value as we continue to market the business for sale.

Refer to Note 3, Discontinued Operations, to the consolidated financial statements for additional details on this business.

Segment Analysis**Merchant Gases**

	2013	2012	2011
Sales	\$4,098.6	\$3,662.4	\$3,664.9
Operating income	680.5	644.0	668.9
Operating margin	16.6%	17.6%	18.3%
Equity affiliates income	145.0	137.1	134.6

Merchant Gases Sales

	% Change from Prior Year	
	2013	2012
Underlying business		
Volume	%	(2)%
Price	1%	1%
Acquisition	11%	4%
Currency	%	(3)%
Total Merchant Gases Sales Change	12%	%

2013 vs. 2012

Underlying sales increased 1% due to higher pricing of 1%. The acquisition of Indura S.A. had a favorable impact on sales of 11%.

In the U.S. and Canada, sales increased 5%, with volumes up 2% and price up 3%. Volumes increased primarily due to higher liquid oxygen and liquid nitrogen, partially offset by helium supply limitations. In Europe, sales decreased 3%, with volumes down 3% primarily due to overall economic weakness in the region. In Asia, sales increased 3% due to higher volumes of 2% and favorable currency of 2%, partially offset by

lower pricing of 1%. Volumes increased primarily due to higher liquid oxygen and liquid nitrogen volumes.

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Operating income increased 6%, primarily due to higher acquisitions of \$48 and lower operating costs of \$13, partially offset by lower price recovery of power and fuel costs of \$25 and lower volumes of \$10. The lower operating costs included the impact from the prior year cost reduction plan in Europe, partially offset by higher pension costs. Operating income in the current year also included \$10 for gains from sales of assets and investments. Operating margin decreased 100 basis points (bp) from prior year, primarily due to the impact of the Indura S.A. acquisition and higher power and fuel costs.

Merchant Gases equity affiliates income of \$145.0 increased \$7.9, primarily as a result of improved performance in our Mexican equity affiliate.

2012 vs. 2011

Underlying sales decreased 1% due to lower volumes of 2% and higher pricing of 1%. Volumes decreased due to lower demand in North America and Europe. The acquisition of Indura S.A. had a favorable impact on sales of 4%. Currency had an unfavorable impact on sales of 3%.

In the U.S. and Canada, sales decreased 1%, with volumes down 2% and price up 1%. Volumes were down due to declines in argon and helium volumes from limitations in supply. In Europe, sales decreased 8%, with unfavorable currency impacts of 6% and volumes down 4%, partially offset by higher price of 2%. Volumes were down primarily due to overall economic weakness in the region. In Asia, sales increased 2% due to higher volumes of 1% and higher pricing of 1%.

Operating income decreased 4%, primarily due to lower volumes, including acquisitions, of \$47 and unfavorable currency of \$15, partially offset by higher recovery of raw material costs in pricing of \$23 and lower operating costs of \$14. Operating margin decreased 70 bp from prior year, primarily due to lower volumes and the impact of the Indura S.A. acquisition.

Merchant Gases equity affiliates income of \$137.1 increased \$2.5, primarily as a result of improved performance in our Mexican equity affiliate.

Tonnage Gases

	2013	2012	2011
Sales	\$3,387.3	\$3,206.7	\$3,316.7
Operating income	515.9	512.0	503.1
Operating margin	15.2%	16.0%	15.2%

Tonnage Gases Sales

	% Change from Prior Year	
	2013	2012
Underlying business		
Volume	(1)%	5%
Energy and raw material cost pass-through	6%	(7)%
Currency	1%	(1)%
Total Tonnage Gases Sales Change	6%	(3)%

2013 vs. 2012

Volumes decreased 1%, as the impact from implementation of our previous decision to exit the PUI business was partially offset by the impact of new plants. Higher energy and raw material contractual cost pass-through to customers increased sales by 6%. Currency favorably impacted sales by 1%.

Operating income increased as higher volumes of \$22 and favorable currency of \$3 were partially offset by higher costs of \$21, including higher maintenance and pension costs. Operating margin decreased 80 bp from prior year, primarily due to the higher energy cost pass-through and higher costs, partially offset by the higher volumes from new plants.

2012 vs. 2011

Volumes increased 5%, driven by improvement in existing customer loadings and new plants. Lower natural gas prices resulted in lower energy and raw material contractual cost pass-through to customers, decreasing sales by 7%. Currency unfavorably impacted sales by 1%.

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Operating income increased as higher volumes of \$33 were partially offset by higher costs of \$17 and unfavorable currency of \$7. Operating margin increased 80 bp from prior year, primarily due to higher volumes.

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	2013	2012	2011
Sales	\$2,243.4	\$2,322.5	\$2,291.5
Operating income GAAP basis	321.3	425.6	361.1
Operating margin GAAP basis	14.3%	18.3%	15.8%
Operating income Non-GAAP basis	321.3	339.7	361.1