

AIR PRODUCTS & CHEMICALS INC /DE/  
Form 10-K  
November 22, 2011  
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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 2011

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 X 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 X

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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 2011 was approximately \$19.1 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 2011 was 210,464,383.

## DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2012 Annual Meeting of Shareholders 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 2011**

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**PART I**

**ITEM 1. BUSINESS**

**General Description of Business and Fiscal Year 2011 Developments**

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, steel, 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 semiconductor materials, refinery hydrogen, natural gas liquefaction, and advanced coatings and adhesives. As used in this report, unless the context indicates otherwise, the terms we, our, us, Company, or registrant include subsidiaries and predecessors of Air Products and its subsidiaries.

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 about Segments**

Financial information concerning the Company's four business segments appears in Note 24, 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 and helium (purchased or refined from crude helium); medical and specialty gases; and certain services and equipment, throughout the world to customers in many industries, including those in metals, glass, chemical processing, food processing, healthcare, steel, general manufacturing, and petroleum and natural gas industries.

Merchant Gases includes 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 Brazil. In the United States, the Company's current 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.

**Healthcare products** Customers receive respiratory therapies, home medical equipment, and infusion services. These products and services are provided to patients in their homes, primarily in Europe. The Company has leading market positions in Spain, Portugal, and the United Kingdom, and in Mexico through its equity affiliates.

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. During fiscal year 2011, we experienced shortages in helium supply due to industrywide 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. Competition in the healthcare business involves price, quality, service, and reliability of supply. In Europe, primary healthcare competitors include the same three global industrial gas companies mentioned previously, as well as smaller regional service providers. In some countries such as Spain and the United Kingdom, the Company tenders for significant parts of the healthcare business with government agencies and is expecting to participate in tenders in some countries over the coming fiscal year.

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Merchant Gases sales constituted 40% of the Company's consolidated sales in fiscal year 2011, 41% in fiscal year 2010, and 44% in fiscal year 2009. Sales of atmospheric gases (oxygen, nitrogen, and argon) constituted approximately 20% of the Company's consolidated sales in fiscal year 2011, 20% in fiscal year 2010, and 21% in fiscal year 2009.

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, India, and Thailand.

## **Tonnage Gases**

Tonnage Gases provides hydrogen, carbon monoxide, nitrogen, oxygen, and synthesis gas (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 synthesis gas as feedstocks in the production of many basic chemicals. The Company delivers product through pipelines from centrally located facilities in or near the Texas Gulf Coast; Louisiana; 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.

Tonnage Gases also includes a Polyurethane Intermediates (PUI) business. At its Pasadena, Texas facility, the Company produces dinitrotoluene (DNT), which is converted to toluene diamine (TDA). Most of the Company's TDA is sold under long-term contracts with raw material cost and currency pass-through to a small number of customers.

Natural gas is the principal raw material for hydrogen, carbon monoxide, and synthesis gas 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. Toluene, ammonia, and hydrogen are the principal raw materials for the PUI business and are purchased from various suppliers under multiyear contracts. During fiscal year 2011, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

Tonnage Gases competes in the United States and Canada 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. Similar competitive situations exist in the European and Asian industrial gas markets where we compete against the three global companies as well as regional competitors. Global competitors for the PUI business are primarily BASF Corporation and Bayer AG.

Tonnage Gases sales constituted approximately 33% of the Company's consolidated sales in fiscal year 2011, 32% in fiscal year 2010, and 31% in fiscal year 2009. Tonnage Gases hydrogen sales constituted approximately 15% of the Company's consolidated sales for the last three fiscal years.

## **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, silane, arsine, phosphine, white ammonia, silicon tetrafluoride, carbon tetrafluoride, hexafluoromethane, critical etch gases, and tungsten hexafluoride) as well as tonnage gases (primarily nitrogen), specialty chemicals, services, and equipment for the manufacture of silicon and compound semiconductors, thin film transistor liquid crystal displays, and photovoltaic devices. 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 and Shanghai, China.

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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 silane, amines, alcohols, epoxides, organic acids, and ketones. During fiscal year 2011, no significant difficulties were encountered in obtaining adequate supplies of energy or raw materials.

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 23% of the Company's consolidated sales in fiscal year 2011, 21% in fiscal year 2010, and 19% in fiscal year 2009.

## **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 owns and operates a 49-megawatt fluidized-bed coal and biomass-fired power generation facility in Stockton, California, and operates and owns a 47.9% interest in a 112-megawatt gas-fueled power generation facility in Thailand. The Company also operates and owns a 50% 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. Coal and natural gas are the largest cost components in the production of energy. The Company mitigates these cost components, in part, through long-term cost pass-through contracts. During fiscal year 2011, 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 \$334 million on 30 September 2011, approximately 30% of which is for cryogenic equipment and 30% of which is for LNG heat exchangers, as compared with a total backlog of approximately \$274 million on 30 September 2010. The Company expects that approximately \$200 million of the backlog on 30 September 2011 will be completed during fiscal year 2012.

## **Narrative Description of the Company's Business Generally**

The Company, through subsidiaries, affiliates, and less-than-controlling interests, conducts business in over 40 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, 17 European countries (including the United Kingdom and Spain), nine Asian countries (including China, Korea, and Taiwan), and three Latin American countries (including Mexico and Brazil). 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, Singapore, Thailand, United Arab Emirates, South Africa, and Mexico).

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Financial information about the Company's foreign operations and investments is included in Notes 8, Summarized Financial Information of Equity Affiliates; 21, Income Taxes; and 24, 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 12, 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 \$589.7 million, \$570.5 million, and \$510.2 million in fiscal years 2011, 2010, and 2009, respectively.

## **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), the United Kingdom (Basingstoke and Carrington), Germany (Hamburg), the Netherlands (Utrecht), Spain (Barcelona), and Asia (Tokyo, Japan; Shanghai, China; Giheung, Korea; and Chubei, Taiwan). 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 \$118.8 million during fiscal year 2011, \$114.7 million in fiscal year 2010, and \$116.3 million in fiscal year 2009. In addition, the Company expended \$29.1 million on customer-sponsored research activities during fiscal year 2011, \$23.9 million in fiscal year 2010, and \$29.7 million in fiscal year 2009.

As of 1 November 2011, the Company owns 931 United States patents, 2,933 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 (the federal Superfund law), similar state laws, and the Resource Conservation and Recovery Act (RCRA) relating to the designation of certain sites for investigation and possible cleanup. 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 16, 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 \$34.0 million in fiscal 2011, \$31.6 million in 2010, and \$52.5 million in 2009. These amounts represent an estimate of expenses for compliance with environmental laws, remedial activities, and activities undertaken to meet internal Company standards. The 2009 amount included a charge of \$16.0 million for the Paulsboro site. Refer to Note 16, Commitments and Contingencies, to the consolidated financial statements for additional information on this charge.

Although precise amounts are difficult to determine, the Company estimates that in both fiscal year 2011 and 2010, it spent approximately \$6 million on capital projects to control pollution. Capital expenditures to control pollution in future years are estimated at approximately \$6 million in both fiscal year 2012 and 2013. The cost of any environmental compliance generally is contractually passed through to the customer.

The Company accrues environmental investigatory and remediation costs for identified sites when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The potential exposure for such costs is estimated to range from \$82 million to a reasonably possible upper exposure of \$96 million. The accrual on the consolidated balance sheet for 30 September 2011 was \$82.3 million and for 30 September 2010 was \$87.0 million.



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Actual costs to be incurred in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Subject to the imprecision in estimating future environmental costs, the Company does not expect that any sum it may have to pay in connection with environmental matters in excess of the amounts recorded or disclosed above would have a materially adverse effect on its financial condition or results of operations in any one year.

## **Employees**

On 30 September 2011, the Company (including majority-owned subsidiaries) had approximately 18,900 employees, of whom approximately 18,500 were full-time employees and of whom approximately 11,700 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 and does not believe that the impact of any expiring or expired collective bargaining agreements will result in a material adverse impact on the Company.

## **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 the Company's Internet website at [www.airproducts.com](http://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](http://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, medical, specialty gas, and crude helium inventories supplied to customers through liquid bulk and packaged gases supply modes. Merchant Gases inventory also includes home medical equipment to serve healthcare patients. Electronics inventories consist primarily of bulk and packaged specialty gases and chemicals and also include inventories to support sales of equipment and services. Performance Materials inventories consist primarily of bulk and packaged performance chemical solutions. The Tonnage Gases inventory is primarily Polyurethane Intermediates raw materials and finished goods; on-site plants and pipeline complexes have limited inventory. Equipment and Energy has 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 2011 follow.

| <b>Name</b>                  | <b>Age</b> | <b>Office</b>   |
|------------------------------|------------|---|
| M. Scott Crocco              | 47         | Vice President and Corporate Controller (became Vice President in 2007; Corporate Controller in 2006)   |
| Paul E. Huck<br>(A)          | 61         | Senior Vice President and Chief Financial Officer (became Senior Vice President and Chief Financial Officer in 2007; Vice President and Chief Financial Officer in 2004)  |
| Stephen J. Jones<br>(A)      | 50         | 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 2007; Vice President and Associate General Counsel in 2007)  |
| John W. Marsland<br>(A)      | 45         | Senior Vice President and General Manager Merchant Gases (became Senior Vice President and General Manager Merchant Gases in 2011, Senior Vice President and General Manager, Electronics, Performance Materials, and Supply Chain in 2011; Senior Vice President, Supply Chain in 2010; Vice President and General Manager, Global Liquid Bulk, Generated Gases and Helium in 2009; Vice President Business Services in 2008; Vice President and General Manager Healthcare in 2006) |
| John E. McGlade<br>(A)(B)(C) | 57         | Chairman, President, and Chief Executive Officer (became Chairman and Chief Executive Officer in 2008; President and Chief Operating Officer in 2006)   |
| Lynn C. Minella<br>(A)       | 53         | Senior Vice President Human Resources and Communications (became Senior Vice President Human Resources and Communications in 2007; Vice President Human Resources in 2004)  |
| Corning F. Painter<br>(A)    | 49         | Senior Vice President Supply Chain, Corporate Strategy and Technology (became Senior Vice President Supply Chain, Corporate Strategy and Technology in 2011; Senior Vice President- Corporate Strategy and Technology in 2011; Vice President and General Manager, Global Electronics in 2006)  |
| John D. Stanley<br>(A)       | 53         | Senior Vice President and General Counsel (became Senior Vice President and General Counsel in 2009; 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

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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 materially adverse effect on our business, operating results, financial condition, and the actual outcome of matters as to which forward-looking statements are made. 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 common to all businesses.

#### **Overall Economic Conditions A return of recessionary economic conditions 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. Recently, uncertain economic conditions in the U.S. and Europe and in certain 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. For example, our Electronics and Performance Materials segment could be significantly impacted by a downturn in the semiconductor market due to decreases in consumer confidence resulting from economic conditions or fiscal policy uncertainties. Our Merchant Gases segment has a significant amount of trade receivables with national healthcare systems in some European countries. We believe the credit and economic conditions within certain members of the European Union have continued to deteriorate. These conditions have resulted in, and may continue to result in, an increase in the average length of time that it takes to collect on our accounts receivable outstanding in these countries.

#### **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 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 all 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.

#### **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.**

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. Hydrocarbons, including natural gas, are the primary feedstock for the production of hydrogen, carbon monoxide, and synthesis gas. 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

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financial results. A disruption in the supply of energy and 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 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, 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. This area continues 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.

**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 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. At the U.S. state level, California's cap and trade program rules have been officially adopted and our compliance obligation as a hydrogen producer is set to begin January 1, 2013. 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 its 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.

**Foreign Operations, Political, and Legal Risks** 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 Company's operations in certain foreign jurisdictions are subject 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



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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 political, legal, and economic risks than those faced by our operations in mature economies. We expect to achieve our long-term financial goals, in part, by achieving disproportionate growth in developing regions, including significant planned expansion in China. 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, and tailoring products for acceptance by local markets.

**Margin and return on capital improvement goals are expected to be realized in part from productivity initiatives. We may not be able to successfully implement initiatives to improve productivity and streamline operations to control or reduce costs.**

Achieving our 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 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.**

A substantial amount of the Company's sales are derived from outside the United States and denominated in foreign currencies. The Company also has significant production facilities which 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.

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

At 30 September 2011, the Company had total consolidated debt of \$4,562.2 million, of which \$634.7 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. For a more detailed discussion of interest rate risk, see Item 7A, below.

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

Adverse equity market conditions and volatility in the credit markets have had and may continue to 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 15, Retirement Benefits, to the consolidated financial statements, included in Item 8, 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



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and possibly expose it to third-party liability claims. Additionally, such events could impact the Company's suppliers, 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.

**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. The Company's operating facilities for the production of certain product lines, primarily in certain electronic materials products, are highly concentrated. Insufficient capacity may expose the Company to liabilities related to contract commitments. 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 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 and could 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 U.S. 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, could 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 materially 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.

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### **Recruiting and Retaining Employees Inability to attract, retain, or develop skilled employees could adversely impact the Company's business.**

Sustaining and growing the Company's business depends on the recruitment, development, and retention of qualified employees. Demographic trends and changes in the geographic concentration of global businesses have created more competition for talent. The inability to attract, develop, or retain quality employees could negatively impact the Company's ability to take on new projects and sustain its operations, which might adversely affect the Company's operations or its ability to grow.

### **ITEM 1B. UNRESOLVED STAFF COMMENTS**

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

### **ITEM 2. PROPERTIES**

We own our principal executive offices which are located at our headquarters in Trexlertown, Pennsylvania. We have another owned principal administrative office in Hersham, England, and leased administrative offices are located in Ontario, Canada; Crewe, U.K.; Brussels, Belgium; Paris, France; Barcelona and Madrid, Spain; Rotterdam, the Netherlands; Bochum, Germany; Moscow, Russia; Warsaw, Poland; São Paulo, Brazil; Pune, India; Shanghai, China; Taipei, Taiwan; Petaling Jaya, Malaysia; Kawasaki, Japan; Seoul, Korea; and Singapore. Management believes the Company's manufacturing facilities, described in more detail below, are adequate to support its businesses.

Following is a description of the properties used by our four business segments.

#### **Merchant Gases**

Merchant Gases currently operates 154 facilities in North and South America (41 sites are owned); 141 sites in Europe, including healthcare (33 sites are owned); and 67 facilities in seven countries within Asia (eight sites are owned). Helium is recovered at sites in Kansas and Texas and distributed from several transfill sites in the U.S., Canada, Europe, and Asia. Sales support offices are located at our Trexlertown headquarters, at leased properties in three states, and at all administrative sites in Europe, and Asia. Research and development (R&D) activities for this segment are conducted in Trexlertown, Pennsylvania.

#### **Tonnage Gases**

Tonnage Gases operates over 60 plants (12 are owned) in North and South America that produce over 300 standard tons per day of product. Thirty-five of these facilities produce or recover hydrogen, many of which support the four major pipeline systems located along the Gulf Coast of Texas; on the Mississippi River corridor in Louisiana; in Los Angeles, California; and in Alberta, Canada. The Tonnage Gases segment includes a facility in Pasadena, Texas that produces Polyurethane Intermediate products. The segment also operates over 20 tonnage plants in Europe and over 20 tonnage plants within Asia. The majority of the sites in this segment are under leasehold type long-term structured agreements. Sales support offices are located at our headquarters in Trexlertown, Pennsylvania and leased offices in Texas, Louisiana, California, and Calgary, Alberta in North America, as well as in Hersham, England; Rotterdam, the Netherlands; Shanghai, China; Singapore; and Doha, Qatar in the Middle East.

#### **Electronics and Performance Materials**

The electronics business within the Electronics and Performance Materials segment produces, packages, and stores nitrogen, specialty gases, and electronic chemicals at over 40 sites in the United States (the majority of which are leased), eight facilities in Europe, over 45 facilities in Asia (approximately half of which are located on customer sites), and two in the Middle East.

The performance materials portion of this segment operates facilities in Los Angeles, California; Calvert City, Kentucky; Wichita, Kansas; Milton, Wisconsin; Reserve, Louisiana; Clayton, England; Marl, Germany; Singapore; Isehara, Japan; and Changzhou and Nanjing, China. Substantially all of the Performance Materials properties are owned.

This segment has six field sales offices in the United States as well as sales offices in Europe, Taiwan, Korea, Japan, Singapore, and China, the majority of which are leased. The segment conducts R&D related activities at eight locations worldwide, including Trexlertown, Pennsylvania;

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Carlsbad, California; Utrecht, the Netherlands; Hamburg, Germany; Chubei, Taiwan; Giheung, South Korea; Shanghai, China; and Kawasaki, Japan.

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### **Equipment and Energy**

Equipment and Energy operates seven equipment facilities and two sales offices in the U.S. and one equipment facility in Europe and two in Asia. We manufacture a significant portion of the world's supply of LNG equipment at our Wilkes-Barre, Pennsylvania site. Air separation columns and cold boxes for Company-owned facilities and third-party sales are produced by operations in Caojing, China; as well as in the Wilkes-Barre facility when capacity is available. Cryogenic transportation containers for liquid helium are manufactured and reconstructed at facilities in eastern Pennsylvania; Liberal, Kansas; and Istres, France. Offices in Hersham, England and Shanghai, China house Equipment commercial team members.

Electric power is produced at various facilities, including Stockton, California. Flue gas desulfurization operations are conducted at the Pure Air facility in Chesterton, Indiana. Additionally, we own a 47.9% interest in a gas-fueled power generation facility in Thailand. The Company or its affiliates own approximately 50% of the real estate in this segment and lease the remaining 50%.

### **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 materially 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 35 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 materially 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.

In early August 2011, the U.S. Environmental Protection Agency (EPA) alleged that the Company's Stockton, California cogeneration facility failed to meet certain air monitoring requirements for short periods of time in 2006 and 2009. We disputed some of the allegations, but agreed to settle the matter for a \$140,600 administrative penalty. The settlement with EPA was memorialized in a Consent Agreement and Final Order with an effective date of 30 September 2011.

On 16 February 2010, an unplanned shutdown at the Company's nitric acid plant in Pasadena, Texas resulted in the release of nitrogen dioxide and nitric acid into the atmosphere. In connection with the incident, the Company was contacted by federal, state, and local environmental regulatory authorities and the U.S. Occupational Safety and Health Administration (OSHA). After a rigorous examination, OSHA concluded its investigation with a no findings determination. A complaint was filed in late June 2010 by Harris County and the State of Texas alleging various regulatory and air permit violations. This action was settled in August 2011 when the parties entered into a court approved Agreed Final Judgment pursuant to which Air Products paid a total of \$36,600 to the two plaintiffs and reimbursed them \$4,500 in attorneys' fees.

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 \$95 million at 30 September 2011) 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.

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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 materially adverse effect on its 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. RESERVED****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. 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**

| 2011   | High    | Low     | Close   | Dividend |
|--------|---------|---------|---------|----------|
| First  | \$91.39 | \$80.90 | \$90.95 | \$.49    |
| Second | 95.00   | 83.22   | 90.18   | .58      |
| Third  | 96.00   | 89.18   | 95.58   | .58      |
| Fourth | 98.00   | 74.58   | 76.37   | .58      |
|        |         |         |         | \$2.23   |

  

| 2010   | High    | Low     | Close   | Dividend |
|--------|---------|---------|---------|----------|
| First  | \$85.44 | \$73.76 | \$81.06 | \$.45    |
| Second | 83.80   | 65.05   | 73.95   | .49      |
| Third  | 80.24   | 64.47   | 64.81   | .49      |
| Fourth | 84.43   | 64.13   | 82.82   | .49      |
|        |         |         |         | \$1.92   |

The Company has authority to issue 25,000,000 shares of preferred stock in series. The Board of Directors is authorized to designate the series and to fix the relative voting, dividend, conversion, liquidation, redemption, and other rights, preferences, and limitations. When preferred stock is issued, holders of Common Stock are subject to the dividend and liquidation preferences and other prior rights of the preferred stock. There currently is no preferred stock outstanding. Our Transfer Agent and Registrar is American Stock Transfer & Trust Company, 59 Maiden Lane, Plaza Level, New York, New York 10038, telephone (800) 937-5449 (U.S. and Canada) or (718) 921-8124 (all other locations); Internet website [www.amstock.com](http://www.amstock.com); and e-mail address [info@amstock.com](mailto:info@amstock.com). As of 31 October 2011, there were 7,892 record holders of our common stock.

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**Purchases of Equity Securities by the Issuer**

On 20 September 2007, the Company's Board of Directors authorized the repurchase of \$1.0 billion of common stock (the Prior Authorization). During the first nine months of fiscal year 2011, we purchased 3.8 million of our outstanding shares at a cost of \$350.0 million. On 1 July 2011, \$299.2 million of the Prior Authorization remained. The share repurchase program under the Prior Authorization was completed during the fourth fiscal quarter.

On 15 September 2011, the Company's Board of Directors authorized the repurchase of an additional \$1.0 billion of common stock. This program does not have a stated expiration date. There were no purchases of stock under this program during fiscal year 2011. Purchases will be completed at our discretion while maintaining sufficient funds for investing in our businesses and growth opportunities.

Information on stock repurchases during the fourth quarter appears below.

| Period |           | (a)<br>Total Number<br>of Shares<br>(or Units)<br>Purchased | (b)<br>Average Price<br>Paid per<br>Share (or Unit) | (c)<br>Total Number<br>of Shares<br>(or Units)<br>Purchased as<br>Part of Publicly<br>Announced<br>Plans or<br>Programs | (d)<br>Maximum Number<br>(or Approximate<br>Dollar Value)<br>of Shares<br>(or Units)<br>that May Yet Be<br>Purchased Under the<br>Plans or Programs |
|--------|-----------|---|---|---|---|
|        |           |   |   |   |   |
| 7/1    | 7/31/2011 | 580,562   | \$89.41   | 580,562   | \$247,278,289   |
| 8/1    | 8/31/2011 | 3,017,782   | \$81.94   | 3,017,782   | \$9,686   |
| 9/1    | 9/30/2011 | 0   | N/A   | 0   | \$1,000,000,000   |
| TOTALS |           | 3,598,344   | \$83.14   | 3,598,344   | \$1,000,000,000   |

**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)                                    | 2011     | 2010     | 2009     | 2008     | 2007     |
|--|----------|----------|----------|----------|----------|
| <b>Operating Results</b>   |          |          |          |          |          |
| Sales  | \$10,082 | \$9,026  | \$8,256  | \$10,415 | \$9,148  |
| Cost of sales  | 7,315    | 6,503    | 6,042    | 7,693    | 6,699    |
| Selling and administrative   | 1,014    | 957      | 943      | 1,090    | 1,000    |
| Research and development   | 119      | 115      | 116      | 131      | 129      |
| Global cost reduction plan   |          |          | 298      |          | 14       |
| Net loss on Airgas transaction   | 49       | 96       |          |          |          |
| Operating income   | 1,622    | 1,389    | 846      | 1,496    | 1,376    |
| Equity affiliates income   | 154      | 127      | 112      | 145      | 114      |
| Interest expense   | 116      | 122      | 122      | 162      | 162      |
| Income tax provision   | 408      | 340      | 185      | 365      | 287      |
| Income from continuing operations attributable to Air Products             | 1,215    | 1,029    | 640      | 1,091    | 1,020    |
| Net income attributable to Air Products                                    | 1,224    | 1,029    | 631      | 910      | 1,036    |
| Basic earnings per common share attributable to Air Products:              |          |          |          |          |          |
| Income from continuing operations  | 5.71     | 4.85     | 3.05     | 5.14     | 4.72     |
| Net income   | 5.75     | 4.85     | 3.01     | 4.29     | 4.79     |
| Diluted earnings per common share attributable to Air Products:            |          |          |          |          |          |
| Income from continuing operations  | 5.59     | 4.74     | 3.00     | 4.97     | 4.57     |
| Net income   | 5.63     | 4.74     | 2.96     | 4.15     | 4.64     |
| <b>Year-End Financial Position</b>   |          |          |          |          |          |
| Plant and equipment, at cost   | \$17,227 | \$16,310 | \$15,751 | \$14,989 | \$14,439 |
| Total assets   | 14,291   | 13,506   | 13,029   | 12,571   | 12,660   |
| Working capital  | 848      | 790      | 494      | 636      | 436      |
| Total debt <sup>(A)</sup>  | 4,562    | 4,128    | 4,502    | 3,967    | 3,668    |
| Air Products shareholders equity   | 5,796    | 5,547    | 4,792    | 5,031    | 5,496    |
| Total equity   | 5,939    | 5,698    | 4,930    | 5,167    | 5,673    |
| <b>Financial Ratios</b>  |          |          |          |          |          |
| Return on average Air Products shareholders equity <sup>(B)</sup>          | 20.8%    | 19.9%    | 13.3%    | 20.1%    | 19.5%    |
| Operating margin   | 16.1%    | 15.4%    | 10.3%    | 14.4%    | 15.0%    |
| Selling and administrative as a percentage of sales                        | 10.1%    | 10.6%    | 11.4%    | 10.5%    | 10.9%    |
| Total debt to sum of total debt and total equity <sup>(A)</sup>            | 43.4%    | 42.0%    | 47.7%    | 43.4%    | 39.8%    |
| <b>Other Data</b>  |          |          |          |          |          |
| Depreciation and amortization  | \$874    | \$863    | \$840    | \$869    | \$790    |
| Capital expenditures on a GAAP basis <sup>(C)</sup>                        | 1,408    | 1,134    | 1,236    | 1,159    | 1,553    |
| Capital expenditures on a non-GAAP basis <sup>(C)</sup>                    | 1,582    | 1,298    | 1,475    | 1,355    | 1,635    |
| Cash provided by operating activities                                      | 1,753    | 1,522    | 1,329    | 1,659    | 1,500    |
| Cash used for investing activities   | 1,212    | 1,057    | 1,040    | 920      | 1,483    |
| Cash provided by (used for) financing activities                           | (485)    | (580)    | 95       | (678)    | (15)     |
| Dividends declared per common share  | 2.23     | 1.92     | 1.79     | 1.70     | 1.48     |
| Market price range per common share  | 98 75    | 85 64    | 81 41    | 106 65   | 99 66    |
| Weighted average common shares outstanding (in millions)                   | 213      | 212      | 210      | 212      | 216      |
| Weighted average common shares outstanding assuming dilution (in millions) | 218      | 217      | 214      | 219      | 223      |
| Book value per common share at year-end                                    | \$27.57  | \$25.94  | \$22.68  | \$24.03  | \$25.52  |
| Shareholders at year-end   | 7,900    | 8,300    | 8,600    | 8,900    | 9,300    |
| Employees at year-end <sup>(D)</sup>                                       | 18,900   | 18,300   | 18,900   | 21,100   | 22,100   |

(A) Total debt includes long-term debt, current portion of long-term debt, and short-term borrowings as of the end of the year.

(B) Calculated using income from continuing operations attributable to Air Products and five-quarter average Air Products shareholders equity.

- (C) 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. Certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases, and such spending is reflected as a use of cash within cash provided by operating activities. Additionally, the purchase of noncontrolling interests in a subsidiary is accounted for as an equity transaction and will be reflected as a financing activity in the consolidated statement of cash flows. Refer to page 30 for a reconciliation of the GAAP to non-GAAP measure for 2011, 2010, and 2009. For 2008 and 2007, the GAAP measure was adjusted by \$196 and \$83, respectively for spending associated with facilities accounted for as capital leases.
- (D) Includes full- and part-time employees from continuing and discontinued operations.

**Table of Contents****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.

Captions 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. These non-GAAP measures exclude the net loss on Airgas transaction in 2011 and 2010. For 2009, the non-GAAP measures exclude the global cost reduction plan charge, costs related to customer bankruptcy and asset actions, and third quarter 2009 pension settlement costs. 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 27-28.

**BUSINESS OVERVIEW**

Air Products and Chemicals, Inc. and its subsidiaries serves energy, electronics, chemicals, steel, 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. Geographically diverse, with operations in over 40 countries, we have sales of \$10.1 billion, assets of \$14.3 billion, and a worldwide workforce of approximately 18,900 employees.

We organize our operations into four reportable business segments: Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy.

**2011 IN SUMMARY**

In 2011, we had strong increases in sales and earnings in the first half of the year with a slowing in the second half due to product supply and cost issues and declining economic growth. In the first two quarters of 2011, underlying sales increased 11% and 12%, respectively due to strong volume growth. In the third and fourth quarters of 2011, our underlying sales increased 7% and 6%, respectively. Overall for 2011, sales increased 12%, principally due to volume increases of 9%. Volumes increased in the Electronics and Performance Materials and Tonnage Gases segments. Also, we achieved significant growth in Asia in the Merchant Gases segment. Operating income increased due primarily to improved performance in the Electronics and Performance Materials and Tonnage Gases segments.

Operating margin increased modestly from last year, as operating leverage was partially offset by a number of product supply and cost issues in the last nine months of the year.



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We withdrew our tender offer to purchase all of the outstanding shares of Airgas, terminated the associated credit facility, and sold previously purchased Airgas stock.

**Highlights for 2011**

Sales of \$10,082.0 increased 12%, or \$1,056.0, driven by strong volume increases across the Electronics and Performance Materials, Tonnage Gases and Merchant Gases segments.

Operating income of \$1,622.2 increased 17%, or \$233.2. On a non-GAAP basis, operating income of \$1,670.7 increased 13%, or \$185.7, primarily due to improved performance in the Electronics and Performance Materials and Tonnage Gases segments.

Income from continuing operations of \$1,215.3 increased 18%, or \$186.2, and diluted earnings per share from continuing operations of \$5.59 increased 18%, or \$.85. On a non-GAAP basis, income from continuing operations of \$1,246.9 increased 14%, or \$157.7, and diluted earnings per share from continuing operations of \$5.73 increased 14%, or \$.71. A summary table of changes in diluted earnings per share is presented below.

Capital spending of \$1,408.3 increased 24%. On a non-GAAP basis, capital spending of \$1,581.8 increased 22%, primarily for the construction of new plants under contract with customers.

Operating cash flow increased 15%, a significant improvement from last year.

We purchased 7.4 million of our outstanding shares at a cost of \$649.2, which completed our prior \$1,000 share repurchase program. On 15 September 2011, the Board of Directors authorized a new \$1,000 share repurchase program.

We increased our quarterly dividend from \$.49 to \$.58 per share. This represents the 29th 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 2012 Outlook discussions provided on page 20 in the Management's Discussion and Analysis that follows.

**Changes in Diluted Earnings per Share Attributable to Air Products**

|   | 2011          | 2010   | Increase<br>(Decrease) |
|---|---------------|--------|------------------------|
| <b>Diluted Earnings per Share</b>                       |               |        |                        |
| Net Income  | \$5.63        | \$4.74 | \$.89                  |
| Income from discontinued operations                     | (.04)         |        | (.04)                  |
| <b>Income from Continuing Operations GAAP Basis</b>     | <b>\$5.59</b> | \$4.74 | \$.85                  |
| Net loss on Airgas transaction                          | .14           | .28    | (.14)                  |
| <b>Income from Continuing Operations Non-GAAP Basis</b> | <b>\$5.73</b> | \$5.02 | \$.71                  |
| <b>Operating Income (after-tax)</b>                     |               |        |                        |
| Underlying business                                     |               |        |                        |
| Volume  |               |        | .73                    |

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|   |               |
|---|---------------|
| Price/raw materials   | (.05)         |
| Costs   | (.13)         |
| Currency  | .09           |
| <b>Operating Income</b>   | <b>.64</b>    |
| <b>Other (after-tax)</b>  |               |
| Equity affiliates income  | .09           |
| Interest expense  | .02           |
| Income tax rate   | .03           |
| Noncontrolling interests  | (.05)         |
| Average shares outstanding  | (.02)         |
| <b>Other</b>  | <b>.07</b>    |
| <b>Total Change in Diluted Earnings per Share from Continuing Operations Non-GAAP Basis</b> | <b>\$ .71</b> |

**Table of Contents****2012 OUTLOOK**

With the significant degree of uncertainty around the global economy, we are prepared for a wide range of economic developments. Management believes global economic growth in the regions we operate in could range from 2% - 5% in 2012. We expect that the U.S. will have positive growth between 1% - 5%. Europe should range between a negative 2% to a positive 1%. We believe Asia will continue as the strongest region, growing at 4% - 9%.

Regardless of global economic conditions, we expect new plant onstreams to increase earnings in 2012. Loading existing assets would also benefit earnings, however, this factor will be most influenced by the economy. We also expect earnings improvement from our productivity efforts and cost controls in discretionary spending, new programs, and staffing. These gains will be partially offset by higher pension expense next year, as a result of a decline in the discount rates and lower asset returns, lower Equipment and Energy results, and a higher tax rate in 2012. The 2012 tax rate is expected to be approximately 26% excluding the impact of the completion of the tax examination and any changes in uncertain tax positions related to the two Spanish tax matters, as described in Note 21, Income Taxes, to the consolidated financial statements.

**Outlook by Segment**

In Merchant Gases, we expect volume growth in the U.S. from new applications and the expansion of Microbulk (small bulk) offerings. As we continue to expand our capacity in Asia, manufacturing growth along with new applications should lead to stronger volumes. In Europe, we will continue to seek higher pricing to offset higher energy costs and will also take actions to reduce operating costs.

Tonnage Gases is expected to benefit from the full-year loading of our 2011 new plant start-ups, along with several investments due to come onstream in 2012.

In Electronics, we expect the second half of the year to be stronger than the first half, primarily due to new plant start-ups and increased demand. The electronics equipment business is expected to slow in 2012 due to a forecasted decline in electronics industry capital spending. For Performance Materials, we anticipate typical seasonality in the first quarter and that volumes will remain soft in the first half of the year. However, if economic conditions improve as expected in the second half of the year, volume growth should return, as we benefit from our low cost production facilities and new product, market and application successes.

Equipment and Energy results are expected to decline due to lower LNG activity.

**RESULTS OF OPERATIONS****Discussion of Consolidated Results**

|                                   | 2011       | 2010      | 2009      |
|-----------------------------------|------------|-----------|-----------|
| Sales                             | \$10,082.0 | \$9,026.0 | \$8,256.2 |
| Operating income - GAAP Basis     | 1,622.2    | 1,389.0   | 846.3     |
| Operating income - Non-GAAP Basis | 1,670.7    | 1,485.0   | 1,184.6   |
| Operating margin - GAAP Basis     | 16.1%      | 15.4%     | 10.3%     |
| Operating margin - Non-GAAP Basis | 16.6%      | 16.5%     | 14.3%     |
| Equity affiliates' income         | 154.3      | 126.9     | 112.2     |

**Sales**

|                     | % Change from Prior Year |      |
|---------------------|--------------------------|------|
|                     | 2011                     | 2010 |
| Underlying business |                          |      |
| Volume              | 9%                       | 9%   |
| Price               | 1%                       | (1)% |
| Currency            | 2%                       | 1%   |

|  |            |           |
|--|------------|-----------|
| <b>Total Consolidated Sales Change</b> | <b>12%</b> | <b>9%</b> |
| <b>2011 vs. 2010</b>                   |            |           |

Sales of \$10,082.0 increased 12%, or \$1,056.0. Underlying business increased 10%, with volumes up 9% and price up 1%. Volumes grew primarily from strong performance in the Electronics and Performance Materials segment, new investments and contracts in the Tonnage Gases segment, and growth in Asia in the Merchant Gases segment. Currency favorably impacted sales 2%.

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### **2010 vs. 2009**

Sales of \$9,026.0 increased 9%, or \$769.8. Underlying business increased 8%, driven by volume increases in the Electronics and Performance Materials and Tonnage Gases segments, as the economic environment improved. These results were driven by a significant recovery in the Electronics and Performance Materials segment and new investments and contracts in the Tonnage Gases segment.

### **Operating Income**

#### **2011 vs. 2010**

Operating income of \$1,622.2 increased 17%, or \$233.2. On a non-GAAP basis, operating income of \$1,670.7 increased 13%, or \$185.7. Underlying business increased \$161, primarily from higher volumes in all segments, partially offset by lower recovery of raw material costs in pricing and higher operating costs. Favorable currency translation and foreign exchange impacts increased operating income by \$25. On a GAAP basis, operating income in the current year includes a \$48.5 net loss related to the Airgas transaction. The prior year included a \$96.0 net loss related to the Airgas transaction.

#### **2010 vs. 2009**

Operating income of \$1,389.0 increased 64%, or \$542.7. On a non-GAAP basis, operating income of \$1,485.0 increased 25%, or \$300.4. Underlying business increased \$275, primarily from higher volumes in the Electronics and Performance Materials and Tonnage Gases segments and lower costs, partially offset by reduced pricing. Favorable currency translation and foreign exchange impacts increased operating income by \$25.

### **Equity Affiliates Income**

#### **2011 vs. 2010**

Income from equity affiliates of \$154.3 increased \$27.4, or 22%. The increase was primarily due to higher volumes and price, and favorable currency and foreign exchange.

#### **2010 vs. 2009**

Income from equity affiliates of \$126.9 increased \$14.7, or 13%, primarily due to higher volumes.

### **Selling and Administrative Expense (S&A)**

#### **2011 vs. 2010**

S&A expense of \$1,014.4 increased \$57.5, or 6%, primarily due to unfavorable currency, inflation, and higher pension expense. S&A as a percent of sales decreased to 10.1% from 10.6%.

#### **2010 vs. 2009**

S&A expense of \$956.9 increased \$13.5, or 1%, primarily due to higher incentive compensation costs, partially offset by improved productivity and the impact of the global cost reduction plan. S&A as a percent of sales decreased to 10.6% from 11.4%.

### **Research and Development (R&D)**

#### **2011 vs. 2010**

R&D expense of \$118.8 increased 4%, or \$4.1, primarily due to increased spending in the Energy business. R&D as a percent of sales decreased to 1.2% from 1.3%.

#### **2010 vs. 2009**

R&D expense of \$114.7 decreased 1%, or \$1.6, primarily due to the impact of cost reduction actions. R&D as a percent of sales decreased to 1.3% from 1.4%.

**Global Cost Reduction Plan**

The 2009 results from continuing operations included a total charge of \$298.2 (\$200.3 after-tax, or \$.94 per share) for the global cost reduction plan. In the first quarter of 2009, we announced the global cost reduction plan, designed to lower our cost structure and better align our businesses to reflect rapidly declining economic conditions around the world. The 2009 first-quarter results included a charge of \$174.2 (\$116.1 after-tax, or \$.55 per share). In the third quarter of 2009, due to the continuing slow economic recovery, we committed to additional actions associated with our global cost reduction plan that resulted in a charge of \$124.0 (\$84.2 after-tax, or \$.39 per share). The total 2009 charge included \$210.0 for severance and other benefits, including pension-related costs, associated with the elimination of approximately 2,550 positions from our global workforce. The remainder of this charge, \$88.2, was for business exits and asset management actions.

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During 2010, we revised our estimate of the costs associated with the 2009 global cost reduction plan. The unfavorable impact of additional severance and other benefits was primarily offset by favorable variances related to completed business exits and asset management actions. These adjustments to the charge were excluded from segment operating profit and did not have a material impact on any individual segment.

As of 30 September 2011, the planned actions associated with the global cost reduction plan were completed. Refer to Note 5, Global Cost Reduction Plan, to the consolidated financial statements for additional details on this charge.

### **Net Loss on Airgas Transaction**

As discussed in Note 3, Airgas Transaction, to the consolidated financial statements, we withdrew our tender offer to acquire all of the outstanding stock of Airgas on 15 February 2011. In connection with the tender offer, we had secured committed financing in the form of a \$6.7 billion term loan credit facility. This credit facility was also terminated.

Prior to the tender offer, we purchased approximately 1.5 million shares of Airgas stock for a total cost of \$69.6. This amount was recorded as an available-for-sale investment within other noncurrent assets on the consolidated balance sheet. On 16 February 2011, we sold the 1.5 million shares of Airgas stock for total proceeds of \$94.7 and recognized a gain of \$25.1 (\$15.9 after-tax, or \$.07 per share).

For the year ended 30 September 2011, \$48.5 (\$31.6 after-tax, or \$.14 per share) in net loss was recognized related to this transaction. This amount is reflected separately on the consolidated income statement as Net loss on Airgas transaction and includes amortization of the fees related to the term loan credit facility, the gain on the sale of Airgas stock, and other acquisition-related costs. For the year ended 30 September 2010, \$96.0 (\$60.1 after-tax, or \$.28 per share) in expense was recognized in relation to this transaction. Refer to Note 3, Airgas Transaction, to the consolidated financial statements.

### **Customer Bankruptcy and Asset Actions**

On 6 January 2009, one of our customers, who principally receives product from the Tonnage Gases segment, began operating under Chapter 11 bankruptcy protection. As a result, we recognized a \$22.2 (\$13.9 after-tax, or \$.07 per share) charge, primarily for the write-off of certain receivables during the third quarter of 2009. Sales and operating income associated with this customer are not material to the Tonnage Gases segment's results.

In April 2010, the customer emerged from bankruptcy proceedings. We received a final settlement in the amount of \$22.4, of which \$16.0 was applied against the remaining outstanding receivables. Income of \$6.4 (\$4.0 after-tax, or \$.02 per share) was recognized for the recovery of certain receivables that had been previously written off. This amount was recorded as a gain and is reflected within customer bankruptcy on the consolidated income statement.

In the third quarter of 2009, we recorded a charge of \$9.9 (\$7.1 after-tax, or \$.03 per share) for other asset actions which consisted of the closure of certain manufacturing facilities. This charge was reflected in cost of sales on the consolidated income statement. The 2009 customer bankruptcy charge combined with this asset write-down resulted in a total charge of \$32.1 (\$21.0 after-tax, or \$.10 per share).

### **Pension Settlement**

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 participant's retirement date. We recognize pension settlements when payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. A settlement loss is recognized when the pension obligation is settled. We recognized \$11.5 and \$10.7 of settlement charges in 2010 and 2009, respectively. Refer to Note 15, Retirement Benefits, to the consolidated financial statements for additional information.

### **Other Income, Net**

Items recorded to other income arise from transactions and events not directly related to our principal income earning activities. The detail of other income is presented in Note 22, Supplemental Information, to the consolidated financial statements.

### **2011 vs. 2010**

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Other income of \$37.2 decreased \$1.5, primarily due to unfavorable foreign exchange, offset mainly by reimbursements from government grants for expenses. Otherwise, no individual items were significant in comparison to the prior year.

**Table of Contents****2010 vs. 2009**

Other income of \$38.7 increased \$15.7, primarily due to a net gain on the sale of assets and favorable foreign exchange. Otherwise, no individual items were significant in comparison to the prior year.

**Interest Expense**

|                            | 2011           | 2010           | 2009           |
|----------------------------|----------------|----------------|----------------|
| Interest incurred          | \$138.2        | \$136.2        | \$143.8        |
| Less: Capitalized interest | 22.7           | 14.3           | 21.9           |
| <b>Interest Expense</b>    | <b>\$115.5</b> | <b>\$121.9</b> | <b>\$121.9</b> |

**2011 vs. 2010**

Interest incurred increased \$2.0. The increase was driven by the impact of a weaker dollar on the translation of foreign currency interest, partially offset by a lower average debt balance. The change in capitalized interest is driven by an increase in project spending which qualified for capitalization.

**2010 vs. 2009**

Interest incurred decreased \$7.6. The decrease was driven by lower average interest rates on variable rate debt, partially offset by a higher average debt balance and the impact of a weaker dollar on the translation of foreign currency interest. The change in capitalized interest is driven by a decrease 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 21, Income Taxes, to the consolidated financial statements for details on factors affecting the effective tax rate.

**2011 vs. 2010**

On a GAAP basis, the effective tax rate was 24.6% and 24.4% in 2011 and 2010, respectively. On a non-GAAP basis, the effective tax rate was 24.9% and 25.2% in 2011 and 2010, respectively.

**2010 vs. 2009**

On a GAAP basis, the effective tax rate was 24.4% and 22.1% in 2010 and 2009, respectively. On a non-GAAP basis, the effective tax rate was 25.2% and 25.3% in 2010 and 2009, respectively.

**Discontinued Operations**

In July 2008, the Board of Directors authorized management to pursue the sale of the U.S. Healthcare business. The U.S. Healthcare business was accounted for as a discontinued operation with its results of operations removed from the results of continuing operations.

In the first half of 2009, based on additional facts, we recorded an impairment charge of \$48.7 (\$30.9 after-tax, or \$.15 per share), reflecting a revision in the estimated net realizable value of the business. Also, tax benefits of \$25.5, or \$.12 per share, were recorded to revise the estimated tax benefit associated with the total impairment charges recorded.

During the third quarter of 2009, we sold more than half of our remaining U.S. Healthcare business for cash proceeds of \$38.1. We recognized an after-tax gain of \$.3 resulting from the sales combined with adjustments to net realizable value of the remaining businesses.

During the fourth quarter of 2009, through a series of transactions, we sold our remaining U.S. Healthcare business for cash proceeds of \$12.1. A net after-tax loss of \$.7 was recognized. These transactions completed the disposal of the U.S. Healthcare business. The U.S. Healthcare business generated sales of \$125.2 and a loss from operations, net of tax, of \$3.4 in 2009. Refer to Note 6, Discontinued Operations, to the consolidated financial statements for additional details.

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During the third quarter of 2011, a tax benefit of \$8.9, or \$.04 per share, was recognized related to the U.S. Healthcare business resulting from the completion of an audit of tax years 2007 and 2008 by the U.S. Internal Revenue Service. Refer to Note 21, Income Taxes, to the consolidated financial statements for further details on the audit settlement.

**Table of Contents****Net Income****2011 vs. 2010**

Net income was \$1,224.2 compared to \$1,029.1, and diluted earnings per share was \$5.63 compared to \$4.74. On a non-GAAP basis, net income was \$1,255.8 compared to \$1,089.2, and diluted earnings per share was \$5.77 compared to \$5.02.

**2010 vs. 2009**

Net income was \$1,029.1 compared to \$631.3, and diluted earnings per share was \$4.74 compared to \$2.96. On a non-GAAP basis, net income was \$1,089.2 compared to \$857.6, and diluted earnings per share was \$5.02 compared to \$4.02.

**Segment Analysis****Merchant Gases**

|                          | 2011      | 2010      | 2009      |
|--------------------------|-----------|-----------|-----------|
| Sales                    | \$4,073.2 | \$3,718.3 | \$3,610.6 |
| Operating income         | 759.8     | 729.4     | 661.2     |
| Operating margin         | 18.7%     | 19.6%     | 18.3%     |
| Equity affiliates income | 134.6     | 104.3     | 98.3      |

**Merchant Gases Sales**

|  | % Change from Prior Year |           |
|--|--------------------------|-----------|
|  | 2011                     | 2010      |
| Underlying business                      |                          |           |
| Volume                                   | 6%                       | 2%        |
| Price                                    | 1%                       | (1)%      |
| Currency                                 | 3%                       | 2%        |
| <b>Total Merchant Gases Sales Change</b> | <b>10%</b>               | <b>3%</b> |

**2011 vs. 2010**

Sales of \$4,073.2 increased by 10%, or \$354.9. Underlying sales increased 7% due to higher volumes of 6% and improved pricing of 1%. Volumes increased due to strong growth in Asia and modest growth in the U.S. and Europe. Currency had a favorable impact of 3% on sales.

In the U.S./Canada, sales increased 5%, with price up 3% and volumes up 2%. The increase in volumes was primarily driven by growth in liquid oxygen and liquid nitrogen. Pricing increased across all product lines. In Europe, sales increased 5%, with 3% higher volume and favorable currency impacts of 3%, offset by 1% lower price. The volume increase was primarily due to stronger liquid/bulk growth and modest packaged gas improvement, partially offset by lower healthcare price. In Asia, sales increased 29%, with volumes up 18%, a favorable currency impact of 6%, and pricing was up 5%. Volumes increased on strength across all products.

**Merchant Gases Operating Income and Margin**

Operating income of \$759.8 increased 4%, or \$30.4. Operating income increased primarily due to higher volumes of \$74 and favorable currency of \$21, partially offset by higher operating costs of \$48 and lower recovery of raw material costs in pricing of \$17 primarily in the European businesses. Operating margin decreased 90 basis points (bp) from prior year, primarily due to higher operating, maintenance, and distribution costs.

**Merchant Gases Equity Affiliates Income**

Merchant Gases equity affiliates income of \$134.6 increased 29%, or \$30.3. The increase was primarily due to higher volumes of \$15, higher price of \$7 and favorable currency and foreign exchange of \$8.

**2010 vs. 2009**

Sales of \$3,718.3 increased 3%, or \$107.7. Sales increased 2% from favorable currency effects, due to a weaker U.S. dollar against key European and Asian currencies in the first half of the year. Underlying business increased 1% as volume increases, primarily in Asia, were partially offset by a decrease in pricing due to liquid hydrogen natural gas cost pass-through and unfavorable customer mix.

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In the U.S./Canada, sales were flat, as volume increases were offset by lower pricing and unfavorable customer mix. In Europe, sales were flat as favorable currency impacts were offset by lower pricing and unfavorable customer mix. In Asia, sales increased 20%, with volumes up 16% and a favorable currency impact of 4%. Volume increases were driven by steel, electronics and bulk hydrogen customers.

**Merchant Gases Operating Income**

Operating income of \$729.4 increased 10%, or \$68.2. The increase was primarily due to lower costs of \$50, higher volumes of \$32 and favorable currency of \$8, partially offset by lower pricing and unfavorable customer mix of \$22. The improved costs resulted from improved plant operating costs, distribution efficiency, and organizational restructuring benefits.

**Merchant Gases Equity Affiliates Income**

Merchant Gases equity affiliates income of \$104.3 increased 6%, or \$6.0. The increase was a result of higher volumes.

**Tonnage Gases**

|                  | 2011      | 2010      | 2009      |
|------------------|-----------|-----------|-----------|
| Sales            | \$3,316.7 | \$2,930.8 | \$2,573.6 |
| Operating income | 503.1     | 444.2     | 399.6     |
| Operating margin | 15.2%     | 15.2%     | 15.5%     |

**Tonnage Gases Sales**

|   | % Change from Prior Year |            |
|---|--------------------------|------------|
|   | 2011                     | 2010       |
| Underlying business                       |                          |            |
| Volume                                    | 11%                      | 11%        |
| Currency                                  | 1%                       | 2%         |
| Energy and raw material cost pass-through | 1%                       | 1%         |
| <b>Total Tonnage Gases Sales Change</b>   | <b>13%</b>               | <b>14%</b> |

**2011 vs. 2010**

Sales of \$3,316.7 increased 13%, or \$385.9. Volumes increased 11% driven by new projects and improvement in existing customer loadings. Currency and energy and raw material contractual cost pass-through to customers each increased sales 1%.

**Tonnage Gases Operating Income and Margin**

Operating income of \$503.1 increased 13%, or \$58.9. The increase was due to higher volumes of \$52, primarily due to new plants brought onstream over the last twelve months, and favorable currency of \$7. Operating margin remained steady at 15.2%.

**2010 vs. 2009**

Sales of \$2,930.8 increased 14%, or \$357.2. Volumes increased 11% due to continued improvement in steel and chemical end markets and new projects. Currency favorably impacted sales by 2%, driven primarily by the weaker U.S. dollar, in the first half of 2010. Energy and raw material contractual cost pass-through to customers increased sales by 1%.

**Tonnage Gases Operating Income**

Operating income of \$444.2 increased 11%, or \$44.6. The increase was a result of higher volumes of \$79 and favorable currency impacts of \$7, partially offset by higher costs of \$41, primarily due to planned maintenance costs and operating inefficiencies.

**Electronics and Performance Materials**

|                  | <b>2011</b>      | 2010      | 2009      |
|------------------|------------------|-----------|-----------|
| Sales            | <b>\$2,291.5</b> | \$1,904.7 | \$1,582.2 |
| Operating income | <b>361.1</b>     | 251.8     | 101.6     |
| Operating margin | <b>15.8%</b>     | 13.2%     | 6.4%      |

**Table of Contents****Electronics and Performance Materials Sales**

|   | % Change from Prior Year |            |
|---|--------------------------|------------|
|   | 2011                     | 2010       |
| Underlying business   |                          |            |
| Volume  | 15%                      | 22%        |
| Price   | 3%                       | (3)%       |
| Currency  | 2%                       | 1%         |
| <b>Total Electronics and Performance Materials Sales Change</b> | <b>20%</b>               | <b>20%</b> |

**2011 vs. 2010**

Sales of \$2,291.5 increased 20%, or \$386.8. Sales increased due to higher volumes of 15%, higher pricing of 3%, and favorable currency of 2%. Electronics sales increased 25%, reflecting increased volumes in tonnage, specialty materials, and the equipment business. Performance Materials sales increased 14% due to volume growth across all end markets globally, higher pricing related to increased raw material costs, and improved customer and product mix.

**Electronics and Performance Materials Operating Income and Margin**

Operating income of \$361.1 increased 43%, or \$109.3. The increase was primarily from higher volumes of \$88, lower costs of \$24, and favorable currency of \$9, partially offset by lower recovery of raw material costs in pricing of \$12. Operating margin improved 260 bp primarily due to higher volumes.

**2010 vs. 2009**

Sales of \$1,904.7 increased 20%, or \$322.5. Underlying business increased due to higher volumes of 22% across all markets, partially offset by unfavorable pricing of 3%. Electronics sales increased 17% due to higher volumes in specialty materials and equipment sales in support of fabrication plant expansions, partially offset by lower pricing. Performance Materials sales increased 25%, reflecting volume growth across end markets globally, partially offset by lower pricing.

**Electronics and Performance Materials Operating Income**

Operating income of \$251.8 increased \$150.2, primarily due to higher volumes of \$160 and lower costs of \$40, partially offset by lower pricing of \$50. The reduced costs were a result of restructuring and productivity initiatives.

**Equipment and Energy**

|                  | 2011    | 2010    | 2009    |
|------------------|---------|---------|---------|
| Sales            | \$400.6 | \$472.2 | \$489.8 |
| Operating income | 62.8    | 67.3    | 42.2    |

**2011 vs. 2010**

Sales of \$400.6 decreased 15%, or \$71.6, reflecting lower air separation unit (ASU) activity. Operating income of \$62.8 decreased 7%, or \$4.5, primarily due to a gain on the sale of an asset in the prior year and higher energy development spending, partially offset by higher LNG sales.

The sales backlog for the Equipment business at 30 September 2011 was \$334, compared to \$274 at 30 September 2010. It is expected that approximately \$200 of the backlog will be completed during 2012.

**2010 vs. 2009**

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Sales of \$472.2 decreased 4%, or \$17.6, due to lower air separation unit (ASU) sales. Operating income of \$67.3 increased 59%, due to higher LNG heat exchanger activity, a gain on the sale of an asset, and lower project costs.

The sales backlog for the Equipment business at 30 September 2010 was \$274, compared to \$239 at 30 September 2009.

### **Other**

Other operating income (loss) primarily includes other expense and income that cannot be directly associated with the business segments, including foreign exchange gains and losses. Also included are LIFO inventory adjustments, as the business segments use FIFO and the LIFO pool adjustments are not allocated to the business segments. Corporate general and administrative costs and research and development costs are fully allocated to the business segments.

**Table of Contents****2011 vs. 2010**

Operating loss was \$16.1 compared to \$2.6, primarily due to an increase in the LIFO pool adjustment as a result of significant increases in inventory values and unfavorable foreign exchange, partially offset by gains on asset sales.

**2010 vs. 2009**

Operating loss was \$2.6 compared to \$17.3, primarily due to favorable foreign exchange in 2010. No other individual items were significant in comparison to the prior year.

**RECONCILIATION OF NON-GAAP FINANCIAL MEASURES**

The presentation of non-GAAP measures is intended to enhance the usefulness of financial information by providing measures which our management uses internally to evaluate our baseline performance on a comparable basis. Presented below are reconciliations of the reported GAAP results to the non-GAAP measures.

**Consolidated Results**

|  | Operating<br>Income | Operating<br>Margin<br>( <sup>f</sup> ) | Income from<br>Continuing<br>Operations | Diluted<br>EPS | Net<br>Income    | Diluted<br>EPS |
|--|---------------------|---|---|----------------|------------------|----------------|
| <b>2011 GAAP</b>   | <b>\$1,622.2</b>    | <b>16.1%</b>                            | <b>\$1,215.3</b>                        | <b>\$5.59</b>  | <b>\$1,224.2</b> | <b>\$5.63</b>  |
| 2010 GAAP  | 1,389.0             | 15.4%                                   | 1,029.1                                 | 4.74           | 1,029.1          | 4.74           |
| Change GAAP  | \$233.2             | 70bp                                    | \$186.2                                 | \$.85          | \$195.1          | \$.89          |
| % Change GAAP  | 17%                 |   | 18%                                     | 18%            | 19%              | 19%            |
| <b>2011 GAAP</b>   | <b>\$1,622.2</b>    | <b>16.1%</b>                            | <b>\$1,215.3</b>                        | <b>\$5.59</b>  | <b>\$1,224.2</b> | <b>\$5.63</b>  |
| <b>Net loss on Airgas transaction<br/>(tax impact \$16.9) <sup>(a)</sup></b> | <b>48.5</b>         | <b>.5%</b>                              | <b>31.6</b>                             | <b>.14</b>     | <b>31.6</b>      | <b>.14</b>     |
| <b>2011 Non-GAAP Measure</b>   | <b>\$1,670.7</b>    | <b>16.6%</b>                            | <b>\$1,246.9</b>                        | <b>\$5.73</b>  | <b>\$1,255.8</b> | <b>\$5.77</b>  |
| 2010 GAAP  | \$1,389.0           | 15.4%                                   | \$1,029.1                               | \$4.74         | \$1,029.1        | \$4.74         |
| Net loss on Airgas transaction<br>(tax impact \$35.9) <sup>(b)</sup>         | 96.0                | 1.1%                                    | 60.1                                    | .28            | 60.1             | .28            |
| 2010 Non-GAAP Measure  | \$1,485.0           | 16.5%                                   | \$1,089.2                               | \$5.02         | \$1,089.2        | \$5.02         |
| Change Non-GAAP Measure  | \$185.7             | 10bp                                    | \$157.7                                 | \$.71          |                  |                |
| % Change Non-GAAP Measure  | 13%                 |   | 14%                                     | 14%            |                  |                |
|  | Operating<br>Income | Operating<br>Margin<br>( <sup>f</sup> ) | Income from<br>Continuing<br>Operations | Diluted<br>EPS | Net<br>Income    | Diluted<br>EPS |
| 2010 GAAP  | \$1,389.0           | 15.4%                                   | \$1,029.1                               | \$4.74         | \$1,029.1        | \$4.74         |
| 2009 GAAP  | 846.3               | 10.3%                                   | 639.9                                   | 3.00           | 631.3            | 2.96           |
| Change GAAP  | \$542.7             | 510bp                                   | \$389.2                                 | \$1.74         | \$397.8          | \$1.78         |
| % Change GAAP  | 64%                 |   | 61%                                     | 58%            | 63%              | 60%            |
| 2010 GAAP  | \$1,389.0           | 15.4%                                   | \$1,029.1                               | \$4.74         | \$1,029.1        | \$4.74         |
| Net loss on Airgas transaction<br>(tax impact \$35.9) <sup>(b)</sup>         | 96.0                | 1.1%                                    | 60.1                                    | .28            | 60.1             | .28            |
| 2010 Non-GAAP Measure  | \$1,485.0           | 16.5%                                   | \$1,089.2                               | \$5.02         | \$1,089.2        | \$5.02         |
| 2009 GAAP  | \$846.3             | 10.3%                                   | \$639.9                                 | \$3.00         | \$631.3          | \$2.96         |
| Global cost reduction plan (tax impact \$97.9) <sup>(c)</sup>                | 298.2               | 3.6%                                    | 200.3                                   | .94            | 200.3            | .94            |
| Customer bankruptcy and asset actions<br>(tax impact \$11.1) <sup>(d)</sup>  | 32.1                | 0.3%                                    | 21.0                                    | .10            | 21.0             | .10            |
| Pension settlement (tax impact \$3.0) <sup>(e)</sup>                         | 8.0                 | 0.1%                                    | 5.0                                     | .02            | 5.0              | .02            |
| 2009 Non-GAAP Measure  | \$1,184.6           | 14.3%                                   | \$866.2                                 | \$4.06         | \$857.6          | \$4.02         |

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|                           |         |       |         |       |
|---------------------------|---------|-------|---------|-------|
| Change Non-GAAP Measure   | \$300.4 | 220bp | \$223.0 | \$.96 |
| % Change Non-GAAP Measure | 25%     |       | 26%     | 24%   |

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|   | Effective Tax Rate |           |           |
|---|--------------------|-----------|-----------|
|   | 2011               | 2010      | 2009      |
| Income Tax Provision GAAP                                       | \$408.4            | \$339.5   | \$185.3   |
| Income from Continuing Operations Before Taxes GAAP             | \$1,661.0          | \$1,394.0 | \$836.6   |
| Effective Tax Rate GAAP   | 24.6%              | 24.4%     | 22.1%     |
| Income tax provision GAAP                                       | \$408.4            | \$339.5   | \$185.3   |
| Net loss on Airgas transaction tax impact                       | 16.9               | 35.9      |           |
| Global cost reduction plan tax impact                           |                    |           | 97.9      |
| Customer bankruptcy and asset actions tax impact                |                    |           | 11.1      |
| Pension settlement tax impact                                   |                    |           | 3.0       |
| Income Tax Provision Non-GAAP Measure                           | \$425.3            | \$375.4   | \$297.3   |
| Income from continuing operations before taxes GAAP             | \$1,661.0          | \$1,394.0 | \$836.6   |
| Net loss on Airgas transaction                                  | 48.5               | 96.0      |           |
| Global cost reduction plan                                      |                    |           | 298.2     |
| Customer bankruptcy and asset actions                           |                    |           | 32.1      |
| Pension settlement  |                    |           | 8.0       |
| Income from Continuing Operations Before Taxes Non-GAAP Measure | \$1,709.5          | \$1,490.0 | \$1,174.9 |
| Effective Tax Rate Non-GAAP Measure                             | 24.9%              | 25.2%     | 25.3%     |

(a) Based on statutory tax rate of 36.57%, including impact of tax rate adjustment for 2010 and first quarter 2011 costs

(b) Based on average statutory tax rate of 37.44%

(c) Based on average statutory tax rate of 32.8%

(d) Based on average statutory tax rate of 34.6%

(e) Based on average statutory tax rate of 37.5%

(f) Operating Margin is calculated by dividing operating income by sales

**LIQUIDITY AND CAPITAL RESOURCES**

We maintained a solid financial position throughout 2011. We retained consistent access to commercial paper markets throughout the year.

Our cash flows from operating, investing, and financing activities, as reflected in the consolidated statements of cash flows, are summarized in the following table:

|                                    | 2011      | 2010      | 2009      |
|------------------------------------|-----------|-----------|-----------|
| <b>Cash provided by (used for)</b> |           |           |           |
| Operating activities               | \$1,753.2 | \$1,522.4 | \$1,329.4 |
| Investing activities               | (1,212.2) | (1,056.5) | (1,040.4) |
| Financing activities               | (484.5)   | (579.7)   | 95.0      |
| <b>Operating Activities</b>        |           |           |           |

**2011 vs. 2010**

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Net cash provided by operating activities increased \$230.8, or 15%. The increase resulted from higher net income of \$195.1 combined with the favorable impact of changes in working capital of \$238.1, partially offset by unfavorable adjustments to income to reconcile to cash provided by operating activities of \$202.4.

Changes in working capital increased cash provided by \$238.1 and primarily included:

A \$261.2 positive cash flow variance from payables and accrued liabilities, primarily due to lower pension contributions in the current year of \$165.6 and payments related to the global cost reduction program of \$103.0 in the prior year.

A \$39.0 positive cash flow variance from trade receivables as the current year reflected a negative cash flow of \$103.5 while the prior year reflected a negative cash flow of \$142.5. Faster collections of receivables in the current year partially offset the increase in sales.

A \$62.1 net negative cash flow variance in several other working capital accounts, primarily from changes in other receivables and accrued income taxes.

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Adjustments to income to reconcile to cash provided by operating activities include depreciation and amortization, impairment charges, deferred taxes, certain acquisition-related costs and share-based compensation cost. These adjustments also include changes in operating assets, such as noncurrent capital lease receivables and liabilities which reflect timing differences between the receipt or disbursement of cash and their recognition in earnings.

Unfavorable adjustments to income to reconcile to cash provided by operating activities in 2011 primarily included the following:

An increase in noncurrent capital lease receivables of \$186.9, primarily related to a new large contract in China that is accounted for as a capital lease.

Higher payments of Airgas acquisition-related costs of \$144.2 as payments in the current year were \$156.2 compared to \$12.0 in the prior year.

These unfavorable adjustments were partially offset by an increase in deferred income taxes of \$89.5 due to tax benefits related to a U.S. audit settlement, the Airgas transaction, and bonus depreciation.

### **2010 vs. 2009**

Net cash provided by operating activities increased \$193.0, or 15%. The increase resulted from higher net income of \$397.8 combined with the favorable impact of adjustments to income to reconcile to cash provided by operating activities of \$191.2, partially offset by unfavorable changes in working capital of \$396.0.

Favorable adjustments to income to reconcile to cash provided by operating activities in 2010 primarily included the following:

An increase in deferred income taxes of \$148.5 due to pension funding and the utilization of foreign tax credits.

Expense of \$84.0 for the amortization of financing costs associated with the Airgas tender offer.

A decrease in noncurrent capital lease receivables of \$101.1.

These favorable adjustments were partially offset by the impact of 2009 impairment charges of \$118.7 related to the global cost reduction plan and the discontinued U.S. Healthcare business.

Changes in working capital increased cash used by \$396.0 and included:

A \$301.5 negative cash flow variance due to higher trade receivables. The current year reflected a negative cash flow of \$142.5 caused by rising sales, while the prior year reflected a positive cash flow of \$159.0 resulting from a significant drop in sales.

A \$94.6 negative cash flow variance from inventories and contracts in progress primarily due to increased spending for inventory and projects to support higher business activity.

### **Investing Activities**

#### **2011 vs. 2010**

Cash used for investing increased \$155.7, primarily due to:

Capital expenditures for plant and equipment increased by \$320.8.

Investment in and advances to unconsolidated affiliates increased by \$41.0, primarily due to an additional investment in an Asian equity affiliate.

A positive cash flow variance of \$164.3 resulted from the current year proceeds of \$94.7 received from the sale of approximately 1.5 million Airgas shares and the prior year purchase of these shares for \$69.6.

A positive cash flow variance of \$29.2 resulted from higher proceeds from the sale of assets and investments.

**2010 vs. 2009**

Cash used for investing increased \$16.1, primarily due to:

Capital expenditures for plant and equipment decreased by \$148.2, consistent with our capital spending plan.

We purchased approximately 1.5 million shares of Airgas stock for \$69.6.

Changes in restricted cash, due to lower project spending, resulted in a reduced source of cash of \$53.4. The proceeds from the issuance of certain Industrial Revenue Bonds must be held in escrow until related project spending occurs and are classified as noncurrent assets in the consolidated balance sheet.

The prior year included proceeds of \$51.0 from the sale of the U.S. Healthcare business.

**Table of Contents****Capital Expenditures**

Capital expenditures are detailed in the following table:

|   | 2011             | 2010      | 2009      |
|---|------------------|-----------|-----------|
| Additions to plant and equipment  | <b>\$1,351.7</b> | \$1,030.9 | \$1,179.1 |
| Acquisitions, less cash acquired  | <b>10.8</b>      | 37.2      | 32.7      |
| Short-term borrowings associated with SAGA acquisition <sup>(A)</sup>                           |                  | 60.9      |           |
| Investments in and advances to unconsolidated affiliates  | <b>45.8</b>      | 4.8       | 24.5      |
| <b>Capital Expenditures on a GAAP Basis</b>   | <b>\$1,408.3</b> | \$1,133.8 | \$1,236.3 |
| Capital lease expenditures <sup>(B)</sup>   | <b>173.5</b>     | 122.6     | 238.6     |
| Noncurrent liability related to purchase of shares from noncontrolling interests <sup>(B)</sup> |                  | 42.0      |           |
| <b>Capital Expenditures on a Non-GAAP Basis</b>   | <b>\$1,581.8</b> | \$1,298.4 | \$1,474.9 |

(A) Noncash transaction.

(B) We utilize a non-GAAP measure in the computation of capital expenditures and include spending associated with facilities accounted for as capital leases and purchases of noncontrolling interests. Certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases, and such spending is reflected as a use of cash within cash provided by operating activities. Additionally, the purchase of noncontrolling interests in a subsidiary is accounted for as an equity transaction and will be reflected as a financing activity in the consolidated statement of cash flows. The presentation of this non-GAAP measure is intended to enhance the usefulness of information by providing a measure which our management uses internally to evaluate and manage our expenditures.

Capital expenditures on a GAAP basis in 2011 totaled \$1,408.3, compared to \$1,133.8 in 2010, resulting in an increase of \$274.5. Additions to plant and equipment were largely in support of the Merchant Gases and Tonnage Gases businesses during both 2011 and 2010. Additions to plant and equipment also included support capital of a routine, ongoing nature, including expenditures for distribution equipment and facility improvements.

Capital expenditures on a non-GAAP basis in 2011 totaled \$1,581.8, compared to \$1,298.4 in 2010. Capital lease expenditures of \$173.5 increased by \$50.9, reflecting higher project spending.

**2012 Outlook**

Excluding acquisitions, capital expenditures for new plant and equipment in 2012 on a GAAP basis are expected to be between \$1,600 and \$1,800, and on a non-GAAP basis are expected to be between \$1,900 and \$2,200. The non-GAAP capital expenditures include spending associated with facilities accounted for as capital leases which are expected to be between \$300 and \$400. The majority of spending is expected in the Tonnage Gases segment, with approximately \$1,000 associated with new plants and pipelines. It is anticipated that capital expenditures will be funded principally with cash from continuing operations. In addition, we intend to continue to evaluate acquisition opportunities and investments in equity affiliates.

In September 2011, we entered into an agreement to acquire 25% of the outstanding shares of Abdullah Hashim Industrial Gases & Equipment Co. Ltd. (AHG). The transaction is subject to regulatory approval and customary local closing conditions. The closing date is expected to occur in early 2012. AHG is a company of the privately-owned Abdullah Hashim Group, based in the Kingdom of Saudi Arabia. AHG is the largest private industrial gases company in Saudi Arabia. It is comprised of three businesses, including industrial gases, equipment and consumables and refrigerants. The transaction will be recorded as an investment in net assets of and advances to equity affiliates in the Merchant Gases segment with the purchase price included in capital expenditures in the period it closes.

**Financing Activities****2011 vs. 2010**

Cash used by financing activities decreased \$95.2, primarily due to:

An increase in the net cash provided by commercial paper and short-term borrowings of \$308.9, driven primarily by \$338.4 of proceeds from commercial paper.

A decrease in payments on long-term debt of \$249.3. Payments in the prior year primarily included a 250 million Eurobond (\$306.8) and a \$50.0 Medium-term note. Payments in 2011 primarily included \$156.0 Medium-term notes.

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An increase in long-term debt proceeds of \$183.6, due primarily to the issuance of a \$350.0 senior fixed-rate 2.0% note in the current year. The prior year primarily included proceeds of \$85.0 from the issuance of an Industrial Revenue Bond.

The above three items, all of which decreased cash used by financing activities, were largely offset by an increase in cash used of \$649.2 due to the purchase of treasury stock in 2011.

### **2010 vs. 2009**

Cash used by financing activities increased \$674.7, primarily due to:

A decrease in long-term proceeds of \$384.3. The prior year included proceeds of \$400.0 from the issuance of a fixed-rate 4.375% 10-year senior note.

An increase in payments on long-term debt of \$353.5, resulting primarily from the repayment of a 250 million Eurobond (\$306.8).

### **Financing and Capital Structure**

Capital needs in 2011 were satisfied primarily with cash from operations. At the end of 2011, total debt outstanding was \$4,562.2 compared to \$4,128.3 and Cash and cash items were \$422.5 compared to \$374.3. Total debt at 30 September 2011 and 2010, expressed as a percentage of the sum of total debt and total equity, was 43.4% and 42.0%, respectively.

Long-term debt proceeds of \$409.8 included \$350.0 from the issuance of a senior fixed-rate 2.0% note. Additionally, on 3 November 2011, we issued a \$400.0 senior fixed-rate 3.0% note that matures 3 November 2021, the proceeds of which will be used for general corporate purposes. Refer to Note 14, Debt, to the consolidated financial statements for additional information.

We have obtained the commitment of a number of commercial banks to lend money at market rates whenever needed. Effective 31 March 2011, we increased our total multicurrency revolving facility, maturing in July 2013, by \$170.0, to a total of \$2,170.0. Effective 30 June 2011, this \$2,170.0 facility was amended to extend the maturity date from 8 July 2013 to 30 June 2015, reduce facility fees to reflect current market rates and modify the financial covenant. Our only financial covenant changed from a maximum ratio of total debt to earnings before interest, taxes, depreciation, and amortization (EBITDA) of no greater than 3.0 to a ratio of long-term debt to equity of no greater than 60%. There were no other material changes to the terms and conditions of the arrangement. This credit facility provides a source of liquidity and is used to support the issuance of commercial paper. No borrowings were outstanding under this commitment at 30 September 2011. Additional commitments totaling \$474.2 are maintained by our foreign subsidiaries, of which \$419.1 was borrowed and outstanding at 30 September 2011.

We are in compliance with all of the financial and other covenants under our debt agreements.

In 2007, the Board of Directors authorized the repurchase of up to \$1,000 of our outstanding common stock. 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 2011, we purchased 7.4 million of our outstanding shares at a cost of \$649.2, which completed our 2007 \$1,000 share repurchase program. On 15 September 2011, the Board of Directors authorized a new \$1,000 share repurchase program. At 30 September 2011, \$1,000 in share repurchase authorization remains.

### **2012 Outlook**

Cash flow from operations and financing activities are expected to meet liquidity needs for the foreseeable future. We project a modest need to access the long-term debt markets in 2012, primarily driven by debt maturities. We expect that we will continue to be in compliance with all of our financial covenants. Also, we anticipate that we will continue to be able to access the commercial paper and other short-term debt markets.

### **Dividends**

On 17 March 2011, the Board of Directors increased the quarterly cash dividend from \$.49 per share to \$.58 per share. Dividends are declared by the Board of Directors and are usually paid during the sixth week after the close of the fiscal quarter.



**Table of Contents****CONTRACTUAL OBLIGATIONS**

We are obligated to make future payments under various contracts, such as debt agreements, lease agreements, unconditional purchase obligations, and other long-term obligations. The following table summarizes our obligations as of 30 September 2011:

|                                      | Total          | Payments Due By Period |              |              |              |              | Thereafter     |
|--------------------------------------|----------------|------------------------|--------------|--------------|--------------|--------------|----------------|
|                                      |                | 2012                   | 2013         | 2014         | 2015         | 2016         |                |
| <b>Long-term debt obligations</b>    |                |                        |              |              |              |              |                |
| Debt maturities                      | \$4,000        | \$474                  | \$334        | \$476        | \$479        | \$402        | \$1,835        |
| Contractual interest                 | 516            | 114                    | 98           | 77           | 62           | 52           | 113            |
| Capital leases                       | 9              | 3                      | 2            | 1            | 1            | 1            | 1              |
| Operating leases                     | 220            | 53                     | 44           | 35           | 29           | 24           | 35             |
| Pension obligations                  | 942            | 40                     | 75           | 197          | 199          | 86           | 345            |
| Unconditional purchase obligations   | 1,675          | 649                    | 121          | 119          | 117          | 122          | 547            |
| Other liabilities                    | 51             | 51                     |              |              |              |              |                |
| <b>Total Contractual Obligations</b> | <b>\$7,413</b> | <b>\$1,384</b>         | <b>\$674</b> | <b>\$905</b> | <b>\$887</b> | <b>\$687</b> | <b>\$2,876</b> |

**Long-Term Debt Obligations**

The long-term debt obligations include the maturity payments of long-term debt, including current portion, and the related contractual interest obligations. Refer to Note 14, Debt, to the consolidated financial statements for additional information on long-term debt.

Contractual interest is the interest we are contracted to pay on the long-term debt obligations without taking into account the interest impact of interest rate swaps related to any of this debt, which at current interest rates would slightly decrease contractual interest. We had \$1,229 of long-term debt subject to variable interest rates at 30 September 2011, excluding fixed-rate debt that has been swapped to variable-rate debt. The rate assumed for the variable interest component of the contractual interest obligation was the rate in effect at 30 September 2011. Variable interest rates are primarily determined by interbank offer rates and by U.S. short-term tax-exempt interest rates.

**Leases**

Refer to Note 11, Leases, to the consolidated financial statements for additional information on capital and operating leases.

**Pension Obligations**

The amounts in the table above represent the current estimated cash payments to be made by us that in total equal the recognized pension liabilities. The 2012 amount represents the low end of an estimated range of \$40 to \$60. Refer to Note 15, Retirement Benefits, to the consolidated financial statements. These payments are based upon the current valuation assumptions and regulatory environment.

The total accrued liability for pension benefits is impacted by interest rates, plan demographics, actual return on plan assets, continuation or modification of benefits, and other factors. Such factors can significantly impact the amount of the liability and related contributions.

**Unconditional Purchase Obligations**

Most of our long-term unconditional purchase obligations relate to feedstock supply for numerous HyCO (hydrogen, carbon monoxide, and syngas) facilities. The price of feedstock supply is principally related to the price of natural gas. However, long-term take-or-pay sales contracts to HyCO customers are generally matched to the term of the feedstock supply obligations and provide recovery of price increases in the feedstock supply. Due to the matching of most long-term feedstock supply obligations to customer sales contracts, we do not believe these purchase obligations would have a material effect on our financial condition or results of operations. Refer to Note 16, Commitments and Contingencies, to the consolidated financial statements.

The unconditional purchase obligations also include other product supply and purchase commitments and electric power and natural gas supply purchase obligations, which are primarily pass-through contracts with our customers. We also have one supply agreement that is not matched to a customer sales contract that has terms extending to ten years and the related commitment is at prices that are not in excess of current market prices. In addition, purchase commitments to spend approximately \$510 for additional plant and equipment are included in the unconditional

purchase obligations in 2012.

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We also purchase materials, energy, capital equipment, supplies, and services as part of the ordinary course of business under arrangements that are not unconditional purchase obligations. The majority of such purchases are for raw materials and energy, which are obtained under requirements-type contracts at market prices. In total, we purchase approximately \$7.4 billion annually, including the unconditional purchase obligations in the table above.

### **Other Liabilities**

In June 2010, we entered into agreements obligating us to purchase 25% of the remaining shares of CryoService Limited (CSL). The agreements require the consideration, which is based on a multiple of earnings formula, to be remitted in December 2011. At 30 September 2011, the liability amounted to \$51.0 and has been reported in accrued liabilities on the consolidated balance sheet. Refer to Note 19, Noncontrolling Interests, to the consolidated financial statements for additional information.

### **Income Tax Liabilities**

Noncurrent deferred income tax liabilities as of 30 September 2011 were \$570.1. Refer to Note 21, Income Taxes, to the consolidated financial statements for additional information. Tax liabilities related to uncertain tax positions as of 30 September 2011 were \$126.4. These tax liabilities were not included in the Contractual Obligations table, as it is impractical to determine a cash impact by year.

### **PENSION BENEFITS**

We and certain of our subsidiaries sponsor defined benefit pension plans that cover a substantial portion of our worldwide employees. The principal defined benefit pension plans – the U.S. salaried pension plan and the U.K. pension plan – were closed to new participants in 2005 and were replaced with defined contribution plans. Over the long run, the shift to defined contribution plans is expected to reduce volatility of both plan expense and contributions.

For 2011, the fair market value of pension plan assets for our defined benefit plans as of the measurement date increased to \$2,823.7 from \$2,711.6 in 2010. The projected benefit obligation for these plans as of the measurement date was \$3,765.8 and \$3,753.6 in 2011 and 2010, respectively. Refer to Note 15, Retirement Benefits, to the consolidated financial statements for comprehensive and detailed disclosures on our postretirement benefits.

### **Pension Expense**

|  | <b>2011</b>    | 2010    | 2009    |
|--|----------------|---------|---------|
| Pension expense  | <b>\$114.1</b> | \$109.0 | \$110.0 |
| Special terminations, settlements, and curtailments (included above) | <b>1.3</b>     | 14.8    | 43.8    |
| Weighted average discount rate                                       | <b>5.0%</b>    | 5.6%    | 7.1%    |
| Weighted average expected rate of return on plan assets              | <b>8.0%</b>    | 8.2%    | 8.3%    |
| Weighted average expected rate of compensation increase              | <b>4.0%</b>    | 4.1%    | 4.3%    |

#### **2011 vs. 2010**

The increase in pension expense, net of special items, was primarily attributable to the 60 bp decrease in the weighted average discount rate, resulting in higher amortization of actuarial losses. The increase was partially offset by a higher expected return on plan assets resulting from large contributions in 2011. Expense in 2011 included \$1.3 of special termination and settlement charges.

#### **2010 vs. 2009**

The increase in pension expense, net of special items, was primarily attributable to the 150 bp decrease in the weighted average discount rate, resulting in higher amortization of actuarial losses. The increase was partially offset by a higher expected return on plan assets resulting from large contributions. Expense in 2010 included \$14.8 of special termination and settlement charges, of which \$2.8 was related to the global cost reduction plan.

### **2012 Outlook**

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Pension expense is estimated to be approximately \$120 to \$125 in 2012, an increase of \$7 to \$12 from 2011, net of special terminations and settlements. In 2012, pension expense will include approximately \$91 for amortization of actuarial losses compared to \$94.8 in 2011. Net actuarial losses of \$127.7 were incurred in 2011, resulting primarily from actual asset returns below expected returns, partially offset by actuarial gains experienced by the international plans, as a result of an increase in discount rates. Actuarial gains/losses are amortized into pension expense over prospective periods to the extent they are not offset by future gains or losses. Future changes in the discount rate and actual returns on plan assets, different from expected returns, would impact the actuarial gains/losses and resulting amortization in years beyond 2012.

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### **Pension Funding**

Pension funding includes both contributions to funded plans and benefit payments for unfunded plans. With respect to funded plans, our funding policy is that contributions, combined with appreciation and earnings, will be sufficient to pay benefits without creating unnecessary surpluses.

In addition, we make contributions to satisfy all legal funding requirements while managing our capacity to benefit from tax deductions attributable to plan contributions. We analyze the liabilities and demographics of each plan, which help guide the level of contributions. During 2011 and 2010, our cash contributions to funded plans and benefit payments for unfunded plans were \$241.0 and \$406.6, respectively. The majority of the cash contributions were voluntary.

Cash contributions to defined benefit plans, including benefit payments for unfunded plans, are estimated to be approximately \$40 to \$60 in 2012. Actual future contributions will depend on future funding legislation, discount rates, investment performance, plan design, and various other factors. Refer to the Contractual Obligations discussion on page 32 for a projection of future contributions.

### **ENVIRONMENTAL MATTERS**

We are subject to various environmental laws and regulations in the countries in which we have operations. Compliance with these laws and regulations results in higher capital expenditures and costs. From time to time, we are involved in proceedings under the Comprehensive Environmental Response, Compensation and Liability Act (the federal Superfund law), similar state laws, and the Resource Conservation and Recovery Act (RCRA) relating to the designation of certain sites for investigation and possible cleanup. Our accounting policy for environmental expenditures is discussed in Note 1, Major Accounting Policies, to the consolidated financial statements, and environmental loss contingencies are discussed in Note 16, Commitments and Contingencies, to the consolidated financial statements.

The amounts charged to income from continuing operations related to environmental matters totaled \$34.0, \$31.6, and \$52.5 in 2011, 2010, and 2009, respectively. These amounts represent an estimate of expenses for compliance with environmental laws, remedial activities, and activities undertaken to meet internal Company standards. Future costs are not expected to be materially different from these amounts. The 2009 amount included a charge of \$16.0 for the Paulsboro site. Refer to Note 16, Commitments and Contingencies, to the consolidated financial statements for additional information on this charge.

Although precise amounts are difficult to determine, we estimate that in both 2011 and 2010, we spent approximately \$6 and \$6, respectively, on capital projects to control pollution. Capital expenditures to control pollution in future years are estimated to be approximately \$6 and \$6 in 2012 and 2013, respectively.

We accrue environmental investigatory and remediation costs for identified sites when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. The potential exposure for such costs is estimated to range from \$82 to a reasonably possible upper exposure of \$96. The consolidated balance sheets at 30 September 2011 and 2010 included an accrual of \$82.3 and \$87.0, respectively. The accrual for the environmental obligations relating to the Pace, Florida; Piedmont, South Carolina; and the Paulsboro, New Jersey locations is included in these amounts. Refer to Note 16, Commitments and Contingencies, to the consolidated financial statements for further details on these facilities.

Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Subject to the imprecision in estimating future environmental costs, we do not expect that any sum we may have to pay in connection with environmental matters in excess of the amounts recorded or disclosed above would have a materially adverse impact on our financial position or results of operations in any one year.

Some of our operations are within jurisdictions that have, or are developing, regulations 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 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. At the U.S. state level, California's cap and trade program rules have been officially adopted and our compliance obligation as a hydrogen producer is set to begin 1 January 2013. We believe we will be able to mitigate some of the costs through our contractual terms.

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Increased public awareness and 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 our costs related to consumption of electric power, hydrogen production, and fluorinated gases production. We believe we will be able to mitigate some of the potential costs through our contractual terms, but the lack of definitive legislation or regulatory requirements in some of the jurisdictions where we operate prevents accurate prediction of the long-term impact on us. Any legislation that limits or taxes GHG emissions from our facilities could impact our growth by increasing our operating costs or reducing demand for certain of our products.

Regulation of GHG may also produce new opportunities for us. We continue to develop technologies to help our facilities and our customers lower energy consumption, improve efficiency, and lower emissions. We are also developing a portfolio of technologies that capture carbon dioxide from power and chemical plants before it reaches the atmosphere, enable cleaner transportation fuels, and facilitate alternate fuel source development. In addition, the potential demand for clean coal and our carbon capture solutions could increase demand for oxygen, one of our main products, and our proprietary technology for delivering low-cost oxygen.

## **OFF-BALANCE SHEET ARRANGEMENTS**

We have entered into certain guarantee agreements as discussed in Note 16, Commitments and Contingencies, to the consolidated financial statements. We are not a primary beneficiary in any material variable interest entity. We do not have any derivative instruments indexed to our own stock. Our off-balance sheet arrangements are not reasonably likely to have a material impact on financial condition, changes in financial condition, results of operations, or liquidity.

## **RELATED PARTY TRANSACTIONS**

Our principal related parties are equity affiliates operating primarily in the industrial gas business. We did not engage in any material transactions involving related parties that included terms or other aspects that differ from those which would be negotiated at arm's length with clearly independent parties.

## **INFLATION**

The consolidated financial statements are presented in accordance with U.S. GAAP and do not fully reflect the impact of prior years' inflation. While some inflationary pressures developed during the second half of fiscal year 2011, inflation in the U.S. has been modest for several years. In addition, we operate in many countries that experience volatility in inflation and foreign exchange rates, with inflationary pressures that differ from those in the U.S. The ability to pass on inflationary cost increases is an uncertainty due to general economic conditions and competitive situations. It is estimated that the cost of replacing our plant and equipment today is greater than its historical cost. Accordingly, depreciation expense would be greater if the expense were stated on a current cost basis.

## **CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

Note 1, Major Accounting Policies, to the consolidated financial statements describes our major accounting policies. Judgments and estimates of uncertainties are required in applying our accounting policies in many areas. However, application of the critical accounting policies discussed below requires management's significant judgments, often as the result of the need to make estimates of matters that are inherently uncertain. If actual results were to differ materially from the estimates made, the reported results could be materially affected. Our management has reviewed these critical accounting policies and estimates and related disclosures with our audit committee.

### **Depreciable Lives of Plant and Equipment**

Net plant and equipment at 30 September 2011 totaled \$7,412.0, and depreciation expense totaled \$851.0 during 2011. Plant and equipment is recorded at cost and depreciated using the straight-line method, which deducts equal amounts of the cost of each asset from earnings every year over its estimated economic useful life.

Economic useful life is the duration of time an asset is expected to be productively employed by us, which may be less than its physical life. Assumptions on the following factors, among others, affect the determination of estimated economic useful life: wear and tear, obsolescence, technical standards, contract life, market demand, competitive position, raw material availability, and geographic location.

The estimated economic useful life of an asset is monitored to determine its appropriateness, especially in light of changed business circumstances. For example, changes in technology, changes in the estimated future demand for products, or excessive wear and tear may result in a shorter estimated useful life than originally anticipated. In these cases, we would depreciate the remaining net book value over the new

estimated remaining life, thereby increasing depreciation expense per year on a prospective basis. Likewise, if the estimated useful life is increased, the adjustment to the useful life decreases depreciation expense per year on a prospective basis.

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We have numerous long-term customer supply contracts, particularly in the gases on-site business within the Tonnage Gases segment. These contracts principally have initial contract terms of 15 to 20 years. There are also long-term customer supply contracts associated with the tonnage gases business within the Electronics and Performance Materials segment. These contracts principally have initial terms of 10 to 15 years. Additionally, we have several customer supply contracts within the Energy and Equipment segment with contract terms that are primarily 5 to 10 years. The depreciable lives of assets within this segment can be extended to 20 years for certain re-deployable assets. Depreciable lives of the production assets related to long-term contracts are matched to the contract lives. Extensions to the contract term of supply frequently occur prior to the expiration of the initial term. As contract terms are extended, the depreciable life of the remaining net book value of the production assets is adjusted to match the new contract term, as long as it does not exceed the economic life of the asset.

The depreciable lives of production facilities within the Merchant Gases segment are principally 15 years. Customer contracts associated with products produced at these types of facilities typically have a much shorter term. The depreciable lives of production facilities within the Electronics and Performance Materials segment, where there is not an associated long-term supply agreement, range from 10 to 15 years. These depreciable lives have been determined based on historical experience combined with judgment on future assumptions such as technological advances, potential obsolescence, competitors' actions, etc. Management monitors its assumptions and may potentially need to adjust depreciable life as circumstances change.

A change in the depreciable life by one year for production facilities within the Merchant Gases and Electronics and Performance Materials segments for which there is not an associated long-term customer supply agreement would impact annual depreciation expense as summarized below:

|                                       | Decrease Life<br>By 1 Year | Increase Life<br>By 1 Year |
|---------------------------------------|----------------------------|----------------------------|
| Merchant Gases                        | \$27                       | \$(18)                     |
| Electronics and Performance Materials | \$20                       | \$(14)                     |

**Impairment of Long-Lived Assets****Plant and Equipment**

Plant and equipment held for use is grouped for impairment testing at the lowest level for which there is identifiable cash flows. Impairment testing of the asset group occurs whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. Such circumstances would include a significant decrease in the market value of a long-lived asset grouping, a significant adverse change in the manner in which the asset grouping is being used or in its physical condition, a history of operating or cash flow losses associated with the use of the asset grouping, or changes in the expected useful life of the long-lived assets. There were no such events or changes in circumstances that occurred during the reporting periods.

If such circumstances are determined to exist, an estimate of undiscounted future cash flows produced by that asset group is compared to the carrying value to determine whether impairment exists. If an asset group is determined to be impaired, the loss is measured based on the difference between the asset group's fair value and its carrying value. An estimate of the asset group's fair value is based on the discounted value of its estimated cash flows. Assets to be disposed of by sale are reported at the lower of carrying amount or fair value less cost to sell.

The assumptions underlying cash flow projections represent management's best estimates at the time of the impairment review. Factors that management must estimate include industry and market conditions, sales volume and prices, costs to produce, inflation, etc. Changes in key assumptions or actual conditions that differ from estimates could result in an impairment charge. We use reasonable and supportable assumptions when performing impairment reviews and cannot predict the occurrence of future events and circumstances that could result in impairment charges.

**Goodwill**

The acquisition method of accounting for business combinations currently requires us to make use of estimates and judgments to allocate the purchase price paid for acquisitions to the fair value of the net tangible and identifiable intangible assets. Goodwill represents the excess of the aggregate purchase price over the fair value of net assets of an acquired entity. Goodwill, including goodwill associated with equity affiliates of \$62.6, was \$955.0 as of 30 September 2011. The majority of our goodwill is assigned to reporting units within the Merchant Gases and Electronics and Performance Materials segments. Disclosures related to goodwill are included in Note 10, Goodwill and Intangible Assets, to the consolidated financial statements.



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We perform an impairment test annually in the fourth quarter of the fiscal year. In addition, goodwill would be tested more frequently if changes in circumstances or the occurrence of events indicated that potential impairment exists. The impairment test requires that we compare the fair value of business reporting units to carrying value, including assigned goodwill. We have designated our reporting units for goodwill impairment testing as one level below the operating segment for which discrete financial information is available and whose operating results are reviewed by segment managers regularly. Currently, we have four business segments and fifteen reporting units. Reporting units are primarily based on products and geographic locations within each business segment.

In the fourth quarter of 2011, we conducted the required annual test of goodwill for impairment. We determined that the fair value of each of the reporting units substantially exceeded its carrying value, and therefore there were no indications of impairment.

We primarily use an income approach valuation model, representing the present value of future cash flows, to determine fair value of a reporting unit. Our valuation model uses a five-year growth period for the business and an estimated exit trading multiple. Management has determined the income approach valuation model represents the most appropriate valuation methodology due to the capital intensive nature of the business, long-term contractual nature of the business, relatively consistent cash flows generated by our reporting units, and limited comparables within the industry. The principal assumptions utilized in our income approach valuation model include revenue growth rate, operating profit margins, discount rate, and exit multiple. Revenue growth rate and operating profit assumptions are consistent with those utilized in our operating plan and long-term financial planning process. The discount rate assumption is calculated based upon an estimated weighted-average cost of capital which includes factors such as the risk-free rate of return, cost of debt, and expected equity premiums. The exit multiple is determined from comparable industry transactions. Also, the expected cash flows consider the customer attrition rate assumption, which is based on historical experience and current and future expected market conditions. Management judgment is required in the determination of each assumption utilized in the valuation model, and actual results could differ from the estimates.

## **Intangible Assets**

Intangible assets at 30 September 2011 totaled \$260.7 and consisted primarily of customer relationships as well as purchased patents and technology. We have no intangible assets with indefinite lives. Intangible assets are tested for impairment as part of the long-lived asset grouping impairment tests. Impairment testing of the asset group occurs whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable. See impairment discussion above under Plant and Equipment for a description of how impairment losses are determined.

## **Equity Investments**

Investments in and advances to equity affiliates totaled \$1,011.6 at 30 September 2011. The majority of our investments are non-publicly traded ventures with other companies in the industrial gas business. Summarized financial information of equity affiliates is included in Note 8, Summarized Financial Information of Equity Affiliates, to the consolidated financial statements. Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable.

In the event that a decline in fair value of an investment occurs, and the decline in value is considered to be other than temporary, an impairment loss would be recognized. Management's estimate of fair value of an investment is based on estimated discounted future cash flows expected to be generated by the investee. Changes in key assumptions about the financial condition of an investee or actual conditions that differ from estimates could result in an impairment charge.

## **Income Taxes**

We account for income taxes under the liability method. Under this method, deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities measured using the enacted tax rate. At 30 September 2011, accrued income taxes and net deferred tax liabilities amounted to \$65.5 and \$347.7, respectively. Tax liabilities related to uncertain tax positions as of 30 September 2011 were \$126.4, excluding interest and penalties. Income tax expense was \$408.4 for the year ended 30 September 2011. Disclosures related to income taxes are included in Note 21, Income Taxes, to the consolidated financial statements.

Management judgment is required in determining income tax expense and the related balance sheet amounts. Judgments are required concerning the ultimate outcome of tax contingencies and the realization of deferred tax assets.

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Actual income taxes paid may vary from estimates, depending upon changes in income tax laws, actual results of operations, and the final audit of tax returns by taxing authorities. Tax assessments may arise several years after tax returns have been filed. We believe that our recorded tax liabilities adequately provide for the probable outcome of these assessments.

Deferred tax assets are recorded for operating losses and tax credit carryforwards. However, when there are not sufficient sources of future taxable income to realize the benefit of the operating losses or tax credit carryforwards, these deferred tax assets are reduced by a valuation allowance. A valuation allowance is recognized if, based on the weight of available evidence, it is considered more likely than not that some portion or all of the deferred tax asset will not be realized. The factors used to assess the likelihood of realization include forecasted future taxable income and available tax planning strategies that could be implemented to realize or renew net deferred tax assets in order to avoid the potential loss of future tax benefits. The effect of a change in the valuation allowance is reported in the current period tax expense.

A 1% point increase/decrease in our effective tax rate would have decreased/increased net income by approximately \$17.

### **Pension Benefits**

The amounts recognized in the consolidated financial statements for pension benefits under the defined benefit plans are determined on an actuarial basis utilizing numerous assumptions. The discussion that follows provides information on the significant assumptions and expense associated with the defined benefit plans.

Actuarial models are used in calculating the pension expense and liability related to the various defined benefit plans. These models have an underlying assumption that the employees render service over their service lives on a relatively consistent basis; therefore, the expense of benefits earned should follow a similar pattern.

Several assumptions and statistical variables are used in the models to calculate the expense and liability related to the plans. We determine assumptions about the discount rate, the expected rate of return on plan assets, and the rate of compensation increase. Note 15, Retirement Benefits, to the consolidated financial statements includes disclosure of these rates on a weighted-average basis for both the domestic and international plans. The actuarial models also use assumptions about demographic factors such as retirement age, mortality, and turnover rates. We believe the actuarial assumptions are reasonable. However, actual results could vary materially from these actuarial assumptions due to economic events and different rates of retirement, mortality, and turnover.

One of the critical assumptions used in the actuarial models is the discount rate. This rate reflects the prevailing market rate for high-quality, fixed-income debt instruments with maturities corresponding to the expected duration of the benefit obligations on the annual measurement date for each of the various plans. The rate is used to discount the future cash flows of benefit obligations back to the measurement date. The timing and amount of expected benefit cash flows are matched against the returns of high-quality corporate bonds over the expected benefit payment period to determine an overall effective discount rate. This rate will change from year-to-year based on market conditions that affect corporate bond yields. A higher discount rate decreases the present value of the benefit obligations and results in lower pension expense. A 50 bp increase/decrease in the discount rate decreases/increases pension expense by approximately \$27 per year.

The expected rate of return on plan assets represents the average rate of return to be earned by plan assets over the period that the benefits included in the benefit obligation are to be paid. The expected return on plan assets assumption is based on a weighted average of estimated long-term returns of major asset classes and the historical performance of plan assets. In determining asset class returns, we take into account historical long-term returns, and the value of active management, as well as the interest rate environment. Asset allocation is determined based on long-term return, volatility and correlation characteristics of the asset classes, the profiles of the plans' liabilities and acceptable levels of risk. Lower returns on the plan assets result in higher pension expense. A 50 bp increase/decrease in the estimated rate of return on plan assets decreases/increases pension expense by approximately \$15 per year.

We use a market-related valuation method for recognizing investment gains or losses. Investment gains or losses are the difference between the expected and actual return based on the market-related value of assets. This method recognizes certain investment gains or losses over a five-year period from the year in which they occur, which reduces year-to-year volatility. Expense in future periods will be impacted as gains or losses are recognized in the market-related value of assets over the five-year period.

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The expected rate of compensation increase is another key assumption. We determine this rate based on review of the underlying long-term salary increase trend characteristic of labor markets and historical experience, as well as comparison to peer companies. A 50 bp increase/decrease in the expected rate of compensation increases/decreases pension expense by approximately \$13 per year.

### **Loss Contingencies**

In the normal course of business we encounter contingencies, i.e., situations involving varying degrees of uncertainty as to the outcome and effect on us. We accrue a liability for loss contingencies when it is considered probable that a liability has been incurred and the amount of loss can be reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued.

Contingencies include those associated with litigation and environmental matters for which our accounting policy is discussed in Note 1, Major Accounting Policies, to the consolidated financial statements, and particulars are provided in Note 16, Commitments and Contingencies, to the consolidated financial statements. Significant judgment is required in both determining probability and whether the amount of loss associated with a contingency can be reasonably estimated. These determinations are made based on the best available information at the time. As additional information becomes available, we reassess probability and estimates of loss contingencies. Revisions in the estimates associated with loss contingencies could have a significant impact on our results of operations in the period in which an accrual for loss contingencies is recorded or adjusted. For example, due to the inherent uncertainties related to environmental exposures, a significant increase to environmental liabilities could occur if a new site is designated, the scope of remediation is increased, or our proportionate share is increased. Similarly, a future charge for regulatory fines or damage awards associated with litigation could have a significant impact on our net income in the period in which it is recorded.

### **NEW ACCOUNTING GUIDANCE**

See Note 2, New Accounting Guidance, to the consolidated financial statements for information concerning the implementation and impact of new accounting guidance.

### **FORWARD-LOOKING STATEMENTS**

This Management's Discussion and Analysis contains forward-looking statements within the safe harbor provisions of the Private Securities Litigation Reform Act of 1995, including earnings guidance, projections and targets. These forward-looking statements are based on management's reasonable expectations and assumptions as of the date this Report is filed regarding important risk factors. Actual performance and financial results may differ materially from projections and estimates expressed in the forward-looking statements because of many factors not anticipated by management, including, without limitation, renewed deterioration in global economic and business conditions, including weakening demand for the Company's products and inability to maintain pricing; future financial and operating performance of major customers and industries served by the Company; unanticipated contract terminations or customer cancellations or postponement of projects and sales; the success of commercial negotiations; asset impairments due to economic conditions or specific product or customer events; the impact of competitive products and pricing; interruption in ordinary sources of supply of raw materials; the Company's ability to recover energy and raw material costs from customers; the Company's ability to maintain and improve cost efficiency of operations; costs and outcomes of litigation or regulatory activities; successful development and market acceptance of new products and applications, the ability to attract, hire and retain qualified personnel in all regions of the world where the Company operates; the success of cost reduction and productivity programs; the timing, impact, and other uncertainties of future acquisitions, divestitures and restructuring activities; significant fluctuations in interest rates and foreign currencies from that currently anticipated; the continued availability of capital funding sources in all of the Company's foreign operations; the impact of environmental, healthcare, tax or other legislation and regulations in jurisdictions in which the Company and its affiliates operate; the impact of new or changed financial accounting guidance; the timing and rate at which tax credits can be utilized and other risk factors described in Section 1A. The Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements contained in this document to reflect any change in the Company's assumptions, beliefs or expectations or any change in events, conditions, or circumstances upon which any such forward-looking statements are based.

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### **ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Our earnings, cash flows, and financial position are exposed to market risks relating to fluctuations in interest rates and foreign currency exchange rates. It is our policy to minimize our cash flow exposure to adverse changes in currency exchange rates and to manage the financial risks inherent in funding with debt capital.

We mitigate adverse energy price impacts through our cost pass-through contracts with customers and price increases. In the past, we have also entered into a limited number of commodity swap contracts in order to reduce the cash flow exposure to changes in the price of natural gas relative to certain oil-based feedstocks. There were no commodity swap contracts outstanding at 30 September 2011 and 2010.

We address these financial exposures through a controlled program of risk management that includes the use of derivative financial instruments. Counterparties to all derivative contracts are major financial institutions, thereby minimizing the risk of credit loss. All instruments are entered into for other than trading purposes. For details on the types and use of these derivative instruments and the major accounting policies, see Note 1, Major Accounting Policies, and Note 12, Financial Instruments, to the consolidated financial statements, for additional information.

Our derivative and other financial instruments consist of long-term debt (including current portion), interest rate swaps, cross currency interest rate swaps, foreign exchange-forward contracts, and foreign exchange-option contracts. The net market value of these financial instruments combined is referred to below as the net financial instrument position. The net financial instrument position at 30 September 2010 does not include available-for-sale securities of \$103.6, as disclosed in Note 13, Fair Value Measurements, to the consolidated financial statements. The available-for-sale securities in 2010 primarily included the investment in Airgas stock of \$102.5, which was subsequently sold in 2011.

At 30 September 2011 and 2010, the net financial instrument position was a liability of \$4,261.1 and \$4,128.2, respectively. The increase in the net financial instrument position was due primarily to the impact of a higher book value of long-term debt (excluding exchange rate impacts).

The analysis below presents the sensitivity of the market value of our financial instruments to selected changes in market rates and prices. Market values are the present value of projected future cash flows based on the market rates and prices chosen. The market values for interest rate risk and foreign currency risk are calculated by us using a third-party software model that utilizes standard pricing models to determine the present value of the instruments based on market conditions (interest rates, spot and forward exchange rates, and implied volatilities) as of the valuation date.

#### **Interest Rate Risk**

Our debt portfolio, including swap agreements, as of 30 September 2011 primarily comprised debt denominated in U.S. dollars (50%) and Euros (41%), including the effect of currency swaps. This debt portfolio is composed of 47% fixed-rate debt and 53% variable-rate debt. Changes in interest rates have different impacts on the fixed- and variable-rate portions of our debt portfolio. A change in interest rates on the fixed portion of the debt portfolio impacts the net financial instrument position but has no impact on interest incurred or cash flows. A change in interest rates on the variable portion of the debt portfolio impacts the interest incurred and cash flows but does not impact the net financial instrument position.

The sensitivity analysis related to the fixed portion of our debt portfolio assumes an instantaneous 100 bp move in interest rates from the level at 30 September 2011, with all other variables held constant. A 100 bp increase in market interest rates would result in a decrease of \$80 and \$87 in the net liability position of financial instruments at 30 September 2011 and 2010, respectively. A 100 bp decrease in market interest rates would result in an increase of \$85 and \$95 in the net liability position of financial instruments at 30 September 2011 and 2010, respectively.

Based on the variable-rate debt included in our debt portfolio, including the interest rate swap agreements, a 100 bp increase in interest rates would result in an additional \$23 and \$22 of interest incurred per year at the end of 30 September 2011 and 2010, respectively. A 100 bp decline in interest rates would lower interest incurred by \$23 and \$22 per year at 30 September 2011 and 2010, respectively.

#### **Foreign Currency Exchange Rate Risk**

The sensitivity analysis assumes an instantaneous 10% change in the foreign currency exchange rates from their levels at 30 September 2011 and 2010, with all other variables held constant. A 10% strengthening or weakening of the functional currency of an entity versus all other currencies would result in a decrease or increase, respectively, of \$271 and \$345 in the net liability position of financial instruments at 30 September 2011 and 2010, respectively.



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The primary currencies for which we have exchange rate exposure are the U.S. dollar versus the Euro and the U.S. dollar versus the Pound Sterling. Foreign currency debt, cross currency interest rate swaps, and foreign exchange-forward contracts are used in countries where we do business, thereby reducing our net asset exposure. Foreign exchange-forward contracts are also used to hedge our firm and highly anticipated foreign currency cash flows, along with foreign exchange-option contracts. Thus, there is either an asset/liability or cash flow exposure related to all of the financial instruments in the above sensitivity analysis for which the impact of a movement in exchange rates would be in the opposite direction and materially equal (or more favorable in the case of purchased foreign exchange-option contracts) to the impact on the instruments in the analysis.

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**ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA  
MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING**

Air Products' management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting, which is defined in the following sentences, is a process designed to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles and includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- (ii) provide reasonable assurance that the transactions are recorded as necessary to permit preparation of financial statements in accordance with U.S. generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of inherent limitations, internal control over financial reporting can only provide reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, the effectiveness of our internal control over financial reporting may vary over time. Our processes contain self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Management has evaluated the effectiveness of its internal control over financial reporting based on the framework in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on this evaluation, management concluded that, as of 30 September 2011, the Company's internal control over financial reporting was effective.

KPMG LLP, an independent registered public accounting firm, has issued their opinion on the Company's internal control over financial reporting as of 30 September 2011 as stated in their report which appears herein.

/s/ John E. McGlade  
John E. McGlade  
Chairman, President, and  
Chief Executive Officer  
22 November 2011

/s/ Paul E. Huck  
Paul E. Huck  
Senior Vice President and  
Chief Financial Officer  
22 November 2011

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**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

The Board of Directors and Shareholders of Air Products and Chemicals, Inc.:

We have audited the accompanying consolidated balance sheets of Air Products and Chemicals, Inc. and Subsidiaries (the Company) as of 30 September 2011 and 2010, and the related consolidated income statements and consolidated statements of equity and cash flows for each of the years in the three-year period ended 30 September 2011. In connection with our audits of the consolidated financial statements, we also have audited the financial statement schedule referred to in item 15(a)(2) in this Form 10-K. We also have audited the Company's internal control over financial reporting as of 30 September 2011, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. The Company's management is responsible for these consolidated financial statements and financial statement schedule, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedule and an opinion on the Company's internal control over financial reporting based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the consolidated financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Air Products and Chemicals, Inc. and Subsidiaries as of 30 September 2011 and 2010, and the results of their operations and their cash flows for each of the years in the three-year period ended 30 September 2011, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein. Also in our opinion, Air Products and Chemicals, Inc. and Subsidiaries maintained, in all material respects, effective internal control over financial reporting as of 30 September 2011, based on criteria established in Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

/s/ KPMG LLP

Philadelphia, Pennsylvania

22 November 2011

**Table of Contents****The Consolidated Financial Statements**

Air Products and Chemicals, Inc. and Subsidiaries

**CONSOLIDATED INCOME STATEMENTS**

| Year ended 30 September (Millions of dollars, except for share data)                 | 2011              | 2010      | 2009      |
|--|-------------------|-----------|-----------|
| <b>Sales</b>   | <b>\$10,082.0</b> | \$9,026.0 | \$8,256.2 |
| Cost of sales  | 7,315.3           | 6,503.0   | 6,042.1   |
| Selling and administrative   | 1,014.4           | 956.9     | 943.4     |
| Research and development   | 118.8             | 114.7     | 116.3     |
| Global cost reduction plan   |                   |           | 298.2     |
| Net loss on Airgas transaction   | 48.5              | 96.0      |           |
| Customer bankruptcy  |                   | (6.4)     | 22.2      |
| Pension settlement   |                   | 11.5      | 10.7      |
| Other income, net  | 37.2              | 38.7      | 23.0      |
| <b>Operating Income</b>  | <b>1,622.2</b>    | 1,389.0   | 846.3     |
| Equity affiliates income   | 154.3             | 126.9     | 112.2     |
| Interest expense   | 115.5             | 121.9     | 121.9     |
| <b>Income from Continuing Operations before Taxes</b>                                | <b>1,661.0</b>    | 1,394.0   | 836.6     |
| Income tax provision   | 408.4             | 339.5     | 185.3     |
| <b>Income from Continuing Operations</b>   | <b>1,252.6</b>    | 1,054.5   | 651.3     |
| <b>Income (Loss) from Discontinued Operations, net of tax</b>                        | <b>8.9</b>        |           | (8.6)     |
| <b>Net Income</b>  | <b>\$1,261.5</b>  | \$1,054.5 | \$642.7   |
| <b>Less: Net Income Attributable to Noncontrolling Interests</b>                     | <b>37.3</b>       | 25.4      | 11.4      |
| <b>Net Income Attributable to Air Products</b>                                       | <b>\$1,224.2</b>  | \$1,029.1 | \$631.3   |
| <b>Net Income Attributable to Air Products</b>                                       |                   |           |           |
| Income from continuing operations  | \$1,215.3         | \$1,029.1 | \$639.9   |
| Income (Loss) from discontinued operations   | 8.9               |           | (8.6)     |
| <b>Net Income Attributable to Air Products</b>                                       | <b>\$1,224.2</b>  | \$1,029.1 | \$631.3   |
| <b>Weighted Average of Common Shares Outstanding</b> (in millions)                   | <b>213.0</b>      | 212.2     | 209.9     |
| <b>Weighted Average of Common Shares Outstanding Assuming Dilution</b> (in millions) | <b>217.6</b>      | 217.1     | 213.5     |
| <b>Basic Earnings per Common Share Attributable to Air Products</b>                  |                   |           |           |
| Income from continuing operations  | \$5.71            | \$4.85    | \$3.05    |
| Income (Loss) from discontinued operations   | .04               |           | (.04)     |
| <b>Net Income Attributable to Air Products</b>                                       | <b>\$5.75</b>     | \$4.85    | \$3.01    |
| <b>Diluted Earnings per Common Share Attributable to Air Products</b>                |                   |           |           |
| Income from continuing operations  | \$5.59            | \$4.74    | \$3.00    |
| Income (Loss) from discontinued operations   | .04               |           | (.04)     |
| <b>Net Income Attributable to Air Products</b>                                       | <b>\$5.63</b>     | \$4.74    | \$2.96    |

The accompanying notes are an integral part of these statements.

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Air Products and Chemicals, Inc. and Subsidiaries

**CONSOLIDATED BALANCE SHEETS**

| 30 September (Millions of dollars, except for share data)                       | 2011              | 2010              |
|---|-------------------|-------------------|
| <b>Assets</b>   |                   |                   |
| <b>Current Assets</b>   |                   |                   |
| Cash and cash items   | \$422.5           | \$374.3           |
| Trade receivables, net  | 1,575.0           | 1,481.9           |
| Inventories   | 681.4             | 571.6             |
| Contracts in progress, less progress billings                                   | 146.7             | 163.6             |
| Prepaid expenses  | 77.9              | 70.3              |
| Other receivables and current assets  | 286.3             | 372.1             |
| <b>Total Current Assets</b>   | <b>3,189.8</b>    | <b>3,033.8</b>    |
| Investment in net assets of and advances to equity affiliates                   | 1,011.6           | 912.8             |
| Plant and equipment, net  | 7,412.0           | 7,051.3           |
| Goodwill  | 892.4             | 914.6             |
| Intangible assets, net  | 260.7             | 285.7             |
| Noncurrent capital lease receivables  | 1,042.8           | 770.4             |
| Other noncurrent assets   | 481.4             | 537.3             |
| <b>Total Noncurrent Assets</b>  | <b>11,100.9</b>   | <b>10,472.1</b>   |
| <b>Total Assets</b>   | <b>\$14,290.7</b> | <b>\$13,505.9</b> |
| <b>Liabilities and Equity</b>   |                   |                   |
| <b>Current Liabilities</b>  |                   |                   |
| Payables and accrued liabilities  | \$1,641.8         | \$1,702.0         |
| Accrued income taxes  | 65.5              | 73.6              |
| Short-term borrowings   | 562.5             | 286.0             |
| Current portion of long-term debt   | 72.2              | 182.5             |
| <b>Total Current Liabilities</b>  | <b>2,342.0</b>    | <b>2,244.1</b>    |
| Long-term debt  | 3,927.5           | 3,659.8           |
| Other noncurrent liabilities  | 1,512.4           | 1,569.3           |
| Deferred income taxes   | 570.1             | 335.1             |
| <b>Total Noncurrent Liabilities</b>   | <b>6,010.0</b>    | <b>5,564.2</b>    |
| <b>Total Liabilities</b>  | <b>8,352.0</b>    | <b>7,808.3</b>    |
| <b>Commitments and Contingencies</b> See Note 16                                |                   |                   |
| <b>Air Products Shareholders' Equity</b>  |                   |                   |
| Common stock (par value \$1 per share; issued 2011 and 2010 249,455,584 shares) | 249.4             | 249.4             |
| Capital in excess of par value  | 805.6             | 802.2             |
| Retained earnings   | 8,599.5           | 7,852.2           |
| Accumulated other comprehensive loss  | (1,253.4)         | (1,159.4)         |
| Treasury stock, at cost (2011 39,270,328 shares; 2010 35,652,719 shares)        | (2,605.3)         | (2,197.5)         |
| <b>Total Air Products Shareholders' Equity</b>                                  | <b>5,795.8</b>    | <b>5,546.9</b>    |
| <b>Noncontrolling Interests</b>   | <b>142.9</b>      | <b>150.7</b>      |
| <b>Total Equity</b>   | <b>5,938.7</b>    | <b>5,697.6</b>    |
| <b>Total Liabilities and Equity</b>   | <b>\$14,290.7</b> | <b>\$13,505.9</b> |

The accompanying notes are an integral part of these statements.

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Air Products and Chemicals, Inc. and Subsidiaries

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

| Year ended 30 September (Millions of dollars)  | 2011             | 2010             | 2009             |
|--|------------------|------------------|------------------|
| <b>Operating Activities</b>  |                  |                  |                  |
| Net income   | \$1,261.5        | \$1,054.5        | \$642.7          |
| Less: Net income attributable to noncontrolling interests  | 37.3             | 25.4             | 11.4             |
| Net income attributable to Air Products  | \$1,224.2        | \$1,029.1        | \$631.3          |
| Adjustments to reconcile income to cash provided by operating activities:                              |                  |                  |                  |
| Depreciation and amortization  | 873.9            | 863.4            | 840.3            |
| Impairment of assets of continuing operations  |                  | 3.8              | 69.2             |
| Impairment of assets of discontinued operations  |                  |                  | 49.5             |
| Deferred income taxes  | 185.7            | 96.2             | (52.3)           |
| Undistributed earnings of unconsolidated affiliates  | (47.5)           | (50.6)           | (58.0)           |
| (Gain) loss on sale of assets and investments  | (12.8)           | (14.8)           | 3.6              |
| Share-based compensation   | 44.8             | 48.6             | 60.4             |
| Noncurrent capital lease receivables   | (272.5)          | (85.6)           | (186.7)          |
| Net loss on Airgas transaction   | 48.5             | 96.0             |                  |
| Payment of acquisition-related costs   | (156.2)          | (12.0)           |                  |
| Customer bankruptcy  |                  |                  | 22.2             |
| Other adjustments  | 69.7             | (9.0)            | (3.4)            |
| Working capital changes that provided (used) cash, excluding effects of acquisitions and divestitures: |                  |                  |                  |
| Trade receivables  | (103.5)          | (142.5)          | 159.0            |
| Inventories  | (101.8)          | (65.9)           | (17.7)           |
| Contracts in progress, less progress billings  | 16.7             | (33.9)           | 12.5             |
| Other receivables  | 14.2             | 41.5             | (11.9)           |
| Payables and accrued liabilities   | (32.4)           | (293.6)          | (282.8)          |
| Other working capital  | 2.2              | 51.7             | 94.2             |
| <b>Cash Provided by Operating Activities</b>   | <b>1,753.2</b>   | <b>1,522.4</b>   | <b>1,329.4</b>   |
| <b>Investing Activities</b>  |                  |                  |                  |
| Additions to plant and equipment   | (1,351.7)        | (1,030.9)        | (1,179.1)        |
| Acquisitions, less cash acquired   | (10.8)           | (37.2)           | (32.7)           |
| Investment in and advances to unconsolidated affiliates  | (45.8)           | (4.8)            | (24.5)           |
| Investment in Airgas stock   |                  | (69.6)           |                  |
| Proceeds from sale of Airgas stock   | 94.7             |                  |                  |
| Proceeds from sale of assets and investments   | 81.6             | 52.4             | 57.9             |
| Proceeds from sale of discontinued operations  |                  |                  | 51.0             |
| Change in restricted cash  | 19.8             | 33.6             | 87.0             |
| <b>Cash Used for Investing Activities</b>  | <b>(1,212.2)</b> | <b>(1,056.5)</b> | <b>(1,040.4)</b> |
| <b>Financing Activities</b>  |                  |                  |                  |
| Long-term debt proceeds  | 409.8            | 226.2            | 610.5            |
| Payments on long-term debt   | (187.1)          | (436.4)          | (82.9)           |
| Net increase (decrease) in commercial paper and short-term borrowings                                  | 234.3            | (74.6)           | (122.7)          |
| Dividends paid to shareholders   | (456.7)          | (398.7)          | (373.3)          |
| Purchase of treasury stock   | (649.2)          |                  |                  |
| Proceeds from stock option exercises   | 148.2            | 88.1             | 54.4             |
| Excess tax benefit from share-based compensation   | 47.6             | 23.9             | 15.5             |
| Other financing activities   | (31.4)           | (8.2)            | (6.5)            |
| <b>Cash (Used for) Provided by Financing Activities</b>  | <b>(484.5)</b>   | <b>(579.7)</b>   | <b>95.0</b>      |
| <b>Effect of Exchange Rate Changes on Cash</b>   | <b>(8.3)</b>     | <b>(.1)</b>      | <b>.7</b>        |
| <b>Increase (Decrease) in Cash and Cash Items</b>  | <b>48.2</b>      | <b>(113.9)</b>   | <b>384.7</b>     |
| <b>Cash and Cash Items Beginning of Year</b>   | <b>374.3</b>     | <b>488.2</b>     | <b>103.5</b>     |
| <b>Cash and Cash Items End of Year</b>   | <b>\$422.5</b>   | <b>\$374.3</b>   | <b>\$488.2</b>   |

**Supplemental Cash Flow Information**

Significant noncash transactions

|  |    |        |    |
|--|----|--------|----|
| Short-term borrowings associated with SAGA acquisition                               | \$ | \$60.9 | \$ |
| Noncurrent liability related to the purchase of shares from noncontrolling interests |    | 42.0   |    |

The accompanying notes are an integral part of these statements.

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(Continued on following page)

Air Products and Chemicals, Inc. and Subsidiaries

**CONSOLIDATED STATEMENTS OF EQUITY**

| Year ended 30 September   | Common<br>Stock <sup>(A)</sup> | Capital<br>in<br>Excess<br>of Par | Retained<br>Earnings | Accumulated<br>Other<br>Comprehensive<br>Loss | Treasury<br>Stock  | Air Product<br>Shareholders<br>Equity | Non-<br>controlling<br>Interests | Total<br>Equity  |
|---|--------------------------------|-----------------------------------|----------------------|---|--------------------|---------------------------------------|----------------------------------|------------------|
| (Millions of dollars)   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Balance 30 September 2008   | \$249.4                        | \$811.7                           | \$6,990.2            | \$(549.3)                                     | \$(2,471.3)        | \$5,030.7                             | \$136.2                          | \$5,166.9        |
| Defined benefit plans measurement date change,<br>net of tax of \$14.0            |                                |                                   | (8.1)                | 35.8  |                    | 27.7                                  |                                  | 27.7             |
| <b>Balance 30 September 2008, adjusted</b>  | <b>\$249.4</b>                 | <b>\$811.7</b>                    | <b>\$6,982.1</b>     | <b>\$(513.5)</b>                              | <b>\$(2,471.3)</b> | <b>\$5,058.4</b>                      | <b>\$136.2</b>                   | <b>\$5,194.6</b> |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Net Income  |                                |                                   | 631.3                |   |                    | 631.3                                 | 11.4                             | 642.7            |
| Translation adjustments, net of tax of \$(35.3)                                   |                                |                                   |                      | (148.3)                                       |                    | (148.3)                               | (.8)                             | (149.1)          |
| Net loss on derivatives, net of tax of \$(1.8)                                    |                                |                                   |                      | (4.5)   |                    | (4.5)                                 | (.2)                             | (4.7)            |
| Unrealized holding gain on available-for-sale<br>securities, net of tax of \$1.4  |                                |                                   |                      | 2.4   |                    | 2.4                                   |                                  | 2.4              |
| Pension and postretirement benefits, net of tax<br>of \$(287.7)                   |                                |                                   |                      | (518.3)                                       |                    | (518.3)                               | (1.6)                            | (519.9)          |
| Reclassification adjustments:   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Currency translation adjustment   |                                |                                   |                      | (3.2)   |                    | (3.2)                                 |                                  | (3.2)            |
| Derivatives, net of tax of \$(.8)   |                                |                                   |                      | (.7)  |                    | (.7)                                  |                                  | (.7)             |
| Pension and postretirement benefits, net of tax<br>of \$9.8                       |                                |                                   |                      | 24.3  |                    | 24.3                                  |                                  | 24.3             |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    | <b>\$(17.0)</b>                       | <b>\$8.8</b>                     | <b>\$(8.2)</b>   |
| Share-based compensation expense  |                                | 59.3                              |                      |   |                    | 59.3                                  |                                  | 59.3             |
| Issuance of treasury shares for stock option and<br>award plans                   |                                | (71.9)                            |                      |   | 118.1              | 46.2                                  |                                  | 46.2             |
| Tax benefit of stock option and award plans                                       |                                | 23.8                              |                      |   |                    | 23.8                                  |                                  | 23.8             |
| Cash dividends (\$1.79 per share)   |                                |                                   | (376.3)              |   |                    | (376.3)                               |                                  | (376.3)          |
| Dividends to noncontrolling interests   |                                |                                   |                      |   |                    |                                       | (8.9)                            | (8.9)            |
| Purchase of noncontrolling interests  |                                |                                   |                      |   |                    |                                       | (.4)                             | (.4)             |
| Contribution from noncontrolling interests  |                                |                                   |                      |   |                    |                                       | 2.4                              | 2.4              |
| Other   |                                |                                   | (2.5)                |   |                    | (2.5)                                 |                                  | (2.5)            |
| <b>Balance 30 September 2009</b>  | <b>\$249.4</b>                 | <b>\$822.9</b>                    | <b>\$7,234.6</b>     | <b>\$(1,161.8)</b>                            | <b>\$(2,353.2)</b> | <b>\$4,791.9</b>                      | <b>\$138.1</b>                   | <b>\$4,930.0</b> |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Net Income  |                                |                                   | 1,029.1              |   |                    | 1,029.1                               | 25.4                             | 1,054.5          |
| Translation adjustments, net of tax of \$69.5                                     |                                |                                   |                      | 136.4   |                    | 136.4                                 | 2.0                              | 138.4            |
| Net loss on derivatives, net of tax of \$(5.5)                                    |                                |                                   |                      | (11.6)  |                    | (11.6)                                |                                  | (11.6)           |
| Unrealized holding gain on available-for-sale<br>securities, net of tax of \$12.1 |                                |                                   |                      | 20.2  |                    | 20.2                                  |                                  | 20.2             |
| Pension and postretirement benefits, net of tax<br>of \$(103.0)                   |                                |                                   |                      | (201.7)                                       |                    | (201.7)                               | (.2)                             | (201.9)          |
| Reclassification adjustments:   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Currency translation adjustment   |                                |                                   |                      | (.7)  |                    | (.7)                                  |                                  | (.7)             |
| Derivatives, net of tax of \$7.0  |                                |                                   |                      | 14.8  |                    | 14.8                                  |                                  | 14.8             |
| Available-for-sale securities, net of tax of \$(5.8)                              |                                |                                   |                      | (10.0)  |                    | (10.0)                                |                                  | (10.0)           |
| Pension and postretirement benefits, net of tax<br>of \$29.5                      |                                |                                   |                      | 55.0  |                    | 55.0                                  |                                  | 55.0             |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    | <b>\$1,031.5</b>                      | <b>\$27.2</b>                    | <b>\$1,058.7</b> |
| Share-based compensation expense  |                                | 48.6                              |                      |   |                    | 48.6                                  |                                  | 48.6             |
| Issuance of treasury shares for stock option and<br>award plans                   |                                | (76.0)                            |                      |   | 155.7              | 79.7                                  |                                  | 79.7             |
| Tax benefit of stock option and award plans                                       |                                | 35.0                              |                      |   |                    | 35.0                                  |                                  | 35.0             |
| Cash dividends (\$1.92 per share)   |                                |                                   | (408.4)              |   |                    | (408.4)                               |                                  | (408.4)          |
| Dividends to noncontrolling interests   |                                |                                   |                      |   |                    |                                       | (18.7)                           | (18.7)           |

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|  |                |                |                  |                    |                    |                  |                |                  |
|--|----------------|----------------|------------------|--------------------|--------------------|------------------|----------------|------------------|
| Purchase of noncontrolling interests       |                |                | (28.3)           |                    |                    | (28.3)           | (10.8)         | (39.1)           |
| Contribution from noncontrolling interests |                |                |                  |                    |                    |                  | 14.7           | 14.7             |
| Other                                      |                |                | (3.1)            |                    |                    | (3.1)            | .2             | (2.9)            |
| <b>Balance 30 September 2010</b>           | <b>\$249.4</b> | <b>\$802.2</b> | <b>\$7,852.2</b> | <b>\$(1,159.4)</b> | <b>\$(2,197.5)</b> | <b>\$5,546.9</b> | <b>\$150.7</b> | <b>\$5,697.6</b> |

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Air Products and Chemicals, Inc. and Subsidiaries

**CONSOLIDATED STATEMENTS OF EQUITY (continued)**

| Year ended 30 September   | Common<br>Stock <sup>(A)</sup> | Capital<br>in<br>Excess<br>of Par | Retained<br>Earnings | Accumulated<br>Other<br>Comprehensive<br>Loss | Treasury<br>Stock  | Air Product<br>Shareholders<br>Equity | Non-<br>controlling<br>Interests | Total<br>Equity  |
|---|--------------------------------|-----------------------------------|----------------------|---|--------------------|---------------------------------------|----------------------------------|------------------|
| (Millions of dollars)   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| <b>Balance 30 September 2010</b>  | <b>\$249.4</b>                 | <b>\$802.2</b>                    | <b>\$7,852.2</b>     | <b>\$(1,159.4)</b>                            | <b>\$(2,197.5)</b> | <b>\$5,546.9</b>                      | <b>\$150.7</b>                   | <b>\$5,697.6</b> |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Net Income  |                                |                                   | 1,224.2              |   |                    | 1,224.2                               | 37.3                             | 1,261.5          |
| Translation adjustments, net of tax of \$9.9                                    |                                |                                   |                      | (87.2)  |                    | (87.2)                                | 4.4                              | (82.8)           |
| Net gain on derivatives, net of tax of \$0.2                                    |                                |                                   |                      | 0.9   |                    | 0.9                                   | (0.1)                            | 0.8              |
| Unrealized holding loss on available-for-sale securities, net of tax of \$(3.3) |                                |                                   |                      | (4.6)   |                    | (4.6)                                 |                                  | (4.6)            |
| Pension and postretirement benefits, net of tax of \$(59.2)                     |                                |                                   |                      | (66.6)  |                    | (66.6)                                |                                  | (66.6)           |
| Reclassification adjustments:   |                                |                                   |                      |   |                    |                                       |                                  |                  |
| Currency translation adjustment   |                                |                                   |                      | 0.4   |                    | 0.4                                   |                                  | 0.4              |
| Derivatives, net of tax of \$3.4  |                                |                                   |                      | 11.5  |                    | 11.5                                  |                                  | 11.5             |
| Available-for-sale securities, net of tax of \$(9.3)                            |                                |                                   |                      | (16.1)  |                    | (16.1)                                |                                  | (16.1)           |
| Pension and postretirement benefits, net of tax of \$35.1                       |                                |                                   |                      | 67.7  |                    | 67.7                                  |                                  | 67.7             |
| <b>Comprehensive Income</b>   |                                |                                   |                      |   |                    | <b>\$1,130.2</b>                      | <b>\$41.6</b>                    | <b>\$1,171.8</b> |
| Share-based compensation expense  |                                | 44.8                              |                      |   |                    | 44.8                                  |                                  | 44.8             |
| Purchase of treasury shares   |                                |                                   |                      |   | (649.2)            | (649.2)                               |                                  | (649.2)          |
| Issuance of treasury shares for stock option and award plans                    |                                | (98.6)                            |                      |   | 241.4              | 142.8                                 |                                  | 142.8            |
| Tax benefit of stock option and award plans                                     |                                | 63.7                              |                      |   |                    | 63.7                                  |                                  | 63.7             |
| Cash dividends (\$2.23 per share)   |                                |                                   | (473.8)              |   |                    | (473.8)                               |                                  | (473.8)          |
| Dividends to noncontrolling interests   |                                |                                   |                      |   |                    |                                       | (31.4)                           | (31.4)           |
| Purchase of noncontrolling interests  |                                | (6.1)                             |                      |   |                    | (6.1)                                 |                                  | (6.1)            |
| Contribution from noncontrolling interests                                      |                                |                                   |                      |   |                    |                                       | 1.4                              | 1.4              |
| Other   |                                | (0.4)                             | (3.1)                |   |                    | (3.5)                                 | (19.4)                           | (22.9)           |
| <b>Balance 30 September 2011</b>  | <b>\$249.4</b>                 | <b>\$805.6</b>                    | <b>\$8,599.5</b>     | <b>\$(1,253.4)</b>                            | <b>\$(2,605.3)</b> | <b>\$5,795.8</b>                      | <b>\$142.9</b>                   | <b>\$5,938.7</b> |

(A) Refer to Note 17, Capital stock, for rollforward of shares.  
The accompanying notes are an integral part of these statements.

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(Millions of dollars, except for share data)

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**1. MAJOR ACCOUNTING POLICIES****Consolidation Principles**

The consolidated financial statements include the accounts of Air Products and Chemicals, Inc. and those of its controlled subsidiaries ( we, our, us, the Company, Air Products, or registrant ), which are generally majority owned. Intercompany transactions and balances are eliminated in consolidation.

We consolidate all entities that we control. The general condition for control is ownership of a majority of the voting interests of an entity. Control may also exist in arrangements where we are the primary beneficiary of a variable interest entity (VIE). An entity that will have both the power to direct the activities that most significantly impact the economic performance of the VIE and the obligation to absorb the losses or receive the benefits significant to the VIE is considered a primary beneficiary of that entity. We have determined that we are not a primary beneficiary in any material variable interest entity.

**Estimates and Assumptions**

The preparation of the financial statements in accordance with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

**Revenue Recognition**

Revenue from product sales is recognized as risk and title to the product transfer to the customer (which generally occurs at the time shipment is made), the sales price is fixed or determinable, and collectability is reasonably assured. Sales returns and allowances are not a business practice in the industry.

Revenue from equipment sale contracts is recorded primarily using the percentage-of-completion method. Under this method, revenue from the sale of major equipment, such as liquefied natural gas (LNG) heat exchangers and large air separation units, are recognized primarily based on labor hours incurred to date compared with total estimated labor hours. Changes to total estimated labor hours and anticipated losses, if any, are recognized in the period determined.

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Certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases. In cases where operating lease treatment is necessary, there is no difference in revenue recognition over the life of the contract as compared to accounting for the contract as product sales. In cases where capital lease treatment is necessary, the timing of revenue and expense recognition is impacted. Revenue and expense are recognized up front for the sale of equipment component of the contract as compared to revenue recognition over the life of the arrangement under contracts not qualifying as capital leases. Additionally, a portion of the revenue representing interest income from the financing component of the lease receivable is reflected as sales over the life of the contract.

If an arrangement involves multiple deliverables, the delivered items are considered separate units of accounting if the items have value on a stand-alone basis. Revenues are allocated to each deliverable based upon relative selling prices derived from company specific evidence.

Amounts billed for shipping and handling fees are classified as sales in the consolidated income statements.

Amounts billed for sales and use taxes, value-added taxes, and certain excise and other specific transactional taxes imposed on revenue-producing transactions are presented on a net basis and excluded from sales in the consolidated income statements. We record a liability until remitted to the respective taxing authority.

### **Cost of Sales**

Cost of sales predominantly represents the cost of tangible products sold. These costs include labor, raw materials, plant engineering, power, depreciation, production supplies and materials packaging costs, and maintenance costs. Costs incurred for shipping and handling are also included in cost of sales.

### **Depreciation**

Depreciation is recorded using the straight-line method, which deducts equal amounts of the cost of each asset from earnings every year over its expected economic useful life. The principal lives for major classes of plant and equipment are summarized in Note 9, Plant and Equipment.

### **Selling and Administrative**

The principal components of selling and administrative expenses are salaries, advertising, and promotional costs.

### **Postemployment Benefits**

We have a severance policy for eligible employees. When termination benefits provided to employees as part of a cost reduction plan, such as that discussed in Note 5, Global Cost Reduction Plan, meet the definition of an ongoing benefit arrangement, a liability is recognized for termination benefits when probable and estimable. These criteria are met when management, with the appropriate level of authority, approves and commits to its plan of action for termination; the plan identifies the employees to be terminated and their related benefits; and the plan is to be completed within one year. During periods of operations where terminations are made on an as-needed basis, absent a detailed committed plan, terminations are accounted for on an individual basis and a liability is recognized when probable and estimable.

### **Financial Instruments**

We address certain financial exposures through a controlled program of risk management that includes the use of derivative financial instruments. Refer to Note 12, Financial Instruments, for further detail on the types and use of derivative instruments that we enter into. The types of derivative financial instruments permitted for such risk management programs are specified in policies set by management.

Major financial institutions are counterparties to all of these derivative contracts. We have established counterparty credit guidelines and only enter into transactions with financial institutions of investment grade or better. Management believes the risk of incurring losses related to credit risk is remote, and any losses would be immaterial to the consolidated financial results, financial condition, or liquidity.

We recognize these derivatives on the balance sheet at fair value. On the date the derivative instrument is entered into, we generally designate the derivative as either (1) a hedge of a forecasted transaction or of the variability of cash flows to be received or paid related to a recognized asset or liability (cash flow hedge), (2) a hedge of a net investment in a foreign operation (net investment hedge), or (3) a hedge of the fair value of a recognized asset or liability or of an unrecognized firm commitment (fair value hedge).



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The following details the accounting treatment of our cash flow, fair value, net investment, and non-designated hedges:

Changes in the fair value of a derivative that is designated as and meets all the required criteria for a cash flow hedge are recorded in Accumulated Other Comprehensive Income (AOCI) and then recognized in earnings when the hedged items affect earnings.

Changes in the fair value of a derivative that is designated as and meets all the required criteria for a fair value hedge, along with the gain or loss on the hedged asset or liability that is attributable to the hedged risk, are recorded in current period earnings.

Changes in the fair value of a derivative, foreign currency debt, and qualifying intercompany loans that are related to an outstanding borrowing from a third party that are designated as and meet all the required criteria for a hedge of a net investment are recorded as translation adjustments in AOCI.

Changes in the fair value of a derivative that is not designated as a hedge are recorded immediately in earnings. We formally document the relationships between hedging instruments and hedged items, as well as our risk management objective and strategy for undertaking various hedge transactions. This process includes relating derivatives that are designated as fair value or cash flow hedges to specific assets and liabilities on the balance sheet or to specific firm commitments or forecasted transactions. We also formally assess, at the inception of the hedge and on an ongoing basis, whether derivatives are highly effective in offsetting changes in fair values or cash flows of the hedged item. If it is determined that a derivative is not highly effective as a hedge, or if a derivative ceases to be a highly effective hedge, we will discontinue hedge accounting with respect to that derivative prospectively.

## **Foreign Currency**

Since we do business in many foreign countries, fluctuations in currency exchange rates affect our financial position and results of operations.

In most of our foreign operations, local currency is considered the functional currency. Foreign subsidiaries translate their assets and liabilities into U.S. dollars at current exchange rates in effect at the end of the fiscal period. The gains or losses that result from this process are shown as translation adjustments in AOCI in the equity section of the balance sheet.

The revenue and expense accounts of foreign subsidiaries are translated into U.S. dollars at the average exchange rates that prevailed during the period. Therefore, the U.S. dollar value of these items on the income statement fluctuates from period to period, depending on the value of the dollar against foreign currencies. Some transactions are made in currencies different from an entity's functional currency. Gains and losses from these foreign currency transactions are generally included in earnings as they occur.

## **Environmental Expenditures**

Accruals for environmental loss contingencies are recorded when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Remediation costs are capitalized if the costs improve the Company's property as compared with the condition of the property when originally constructed or acquired, or if the costs prevent environmental contamination from future operations. We expense environmental costs related to existing conditions resulting from past or current operations and from which no current or future benefit is discernible. The amounts charged to income from continuing operations related to environmental matters totaled \$34.0 in fiscal 2011, \$31.6 in 2010, and \$52.5 in 2009.

The measurement of environmental liabilities is based on an evaluation of currently available information with respect to each individual site and considers factors such as existing technology, presently enacted laws and regulations, and prior experience in remediation of contaminated sites. An environmental liability related to cleanup of a contaminated site might include, for example, a provision for one or more of the following types of costs: site investigation and testing costs, cleanup costs, costs related to soil and water contamination resulting from tank ruptures, post-remediation monitoring costs, and outside legal fees. These liabilities include costs related to other potentially responsible parties to the extent that we have reason to believe such parties will not fully pay their proportionate share. They do not take into account any claims for recoveries from insurance or other parties and are not discounted.

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As assessments and remediation progress at individual sites, the amount of projected cost is reviewed, and the liability is adjusted to reflect additional technical and legal information that becomes available. Management has a well-established process in place to identify and monitor the Company's environmental exposures. An environmental

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accrual analysis is prepared and maintained that lists all environmental loss contingencies, even where an accrual has not been established. This analysis assists in monitoring the Company's overall environmental exposure and serves as a tool to facilitate ongoing communication among the Company's technical experts, environmental managers, environmental lawyers, and financial management to ensure that required accruals are recorded and potential exposures disclosed.

Given inherent uncertainties in evaluating environmental exposures, actual costs to be incurred at identified sites in future periods may vary from the estimates. Refer to Note 16, Commitments and Contingencies, for additional information on the Company's environmental loss contingencies.

The accruals for environmental liabilities are reflected in the consolidated balance sheets, primarily as part of other noncurrent liabilities.

## **Litigation**

In the normal course of business, we are involved in legal proceedings. We accrue a liability for such matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued. The accrual for a litigation loss contingency includes estimates of potential damages and other directly related costs expected to be incurred. Refer to Note 16, Commitments and Contingencies, for additional information on our current legal proceedings.

## **Share-Based Compensation**

We have various share-based compensation programs, which include stock options, deferred stock units, and restricted stock. We expense the grant-date fair value of these awards over the vesting period during which employees perform related services. Beginning in fiscal year 2011, we moved from a lattice-based valuation model to a Black Scholes model to value stock option awards. The change in valuation models was not significant to our consolidated financial statements. Refer to Note 18, Share-Based Compensation, for further detail.

## **Income Taxes**

We account for income taxes under the liability method. Under this method, deferred tax assets and liabilities are recognized for the tax effects of temporary differences between the financial reporting and tax bases of assets and liabilities using enacted tax rates. A principal temporary difference results from the excess of tax depreciation over book depreciation because accelerated methods of depreciation and shorter useful lives are used for income tax purposes. The cumulative impact of a change in tax rates or regulations is included in income tax expense in the period that includes the enactment date.

A tax benefit for an uncertain tax position is recognized when it is more likely than not that the position will be sustained upon examination based on its technical merits. This position is measured as the largest amount of tax benefit that is greater than 50% likely of being realized. Interest and penalties related to unrecognized tax benefits are recognized as a component of income tax expense. For additional information regarding our income taxes, refer to Note 21, Income Taxes.

## **Cash and Cash Items**

Cash and cash items include cash, time deposits, and certificates of deposit acquired with an original maturity of three months or less.

## **Trade Receivables, net**

Trade receivables are comprised of amounts owed to us through our operating activities and are presented net of allowances for doubtful accounts. The allowances for doubtful accounts represent estimated uncollectible receivables associated with potential customer defaults on contractual obligations. A provision for customer defaults is made on a general formula basis when it is determined that the risk of some default is probable and estimable but cannot yet be associated with specific customers. The assessment of the likelihood of customer defaults is based on various factors, including the length of time the receivables are past due, historical experience, and existing economic conditions. The allowances also include amounts for certain customers where a risk of default has been specifically identified considering factors such as the financial condition of the customer and customer disputes over contractual terms and conditions. Allowances for doubtful accounts were \$98.0 and \$99.3 as of fiscal year end 2011 and 2010, respectively. Provisions to the allowances for doubtful accounts charged against income were \$23.4, \$29.5, and \$37.8 in 2011, 2010, and 2009, respectively.



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### **Inventories**

Inventories are stated at the lower of cost or market. We write down our inventories for estimated obsolescence or unmarketable inventory based upon assumptions about future demand and market conditions.

We utilize the last-in, first-out (LIFO) method for determining the cost of inventories in the Merchant Gases, Tonnage Gases, and Electronics and Performance Materials segments in the United States. Inventories for these segments outside of the United States are accounted for on the first-in, first-out (FIFO) method, as the LIFO method is not generally permitted in the foreign jurisdictions where these segments operate. The inventories of the Equipment and Energy segment on a worldwide basis, as well as all other inventories, are accounted for on the FIFO basis.

At the business segment level, inventories are recorded at FIFO and the LIFO pool adjustments are not allocated to the business segments.

### **Equity Investments**

The equity method of accounting is used when we exercise significant influence but do not have operating control, generally assumed to be 20%-50% ownership. Under the equity method, original investments are recorded at cost and adjusted by our share of undistributed earnings or losses of these companies. Equity investments are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the investment may not be recoverable.

### **Plant and Equipment**

Plant and equipment is stated at cost less accumulated depreciation. Construction costs, labor, and applicable overhead related to installations are capitalized. Expenditures for additions and improvements that extend the lives or increase the capacity of plant assets are capitalized. The costs of maintenance and repairs of plant and equipment are charged to expense as incurred.

Fully depreciated assets are retained in the gross plant and equipment and accumulated depreciation accounts until they are removed from service. In the case of disposals, assets and related depreciation are removed from the accounts, and the net amounts, less proceeds from disposal, are included in income.

### **Computer Software**

We capitalize costs incurred to purchase or develop software for internal use. Capitalized costs include purchased computer software packages, payments to vendors/consultants for development and implementation or modification to a purchased package to meet our requirements, payroll and related costs for employees directly involved in development, and interest incurred while software is being developed. Capitalized computer software costs are included in the balance sheet classification plant and equipment and depreciated over the estimated useful life of the software, generally a period of three to ten years. The Company's SAP system is being depreciated over a ten-year estimated useful life.

### **Capitalized Interest**

As we build new plant and equipment, we include in the cost of these assets a portion of the interest payments we make during the year. The amount of capitalized interest was \$22.7, \$14.3, and \$21.9 in 2011, 2010, and 2009, respectively.

### **Impairment of Long-Lived Assets**

Long-lived assets are evaluated for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset group may not be recoverable. We assess recoverability by comparing the carrying amount of the asset group to estimated undiscounted future cash flows expected to be generated by the asset group. If an asset group is considered impaired, the impairment loss to be recognized is measured as the amount by which the asset group's carrying amount exceeds its fair value. Long-lived assets to be sold are reported at the lower of carrying amount or fair value less cost to sell.

### **Government Grants**

We receive government grants that primarily relate to research and development projects. Government grants are recognized when there is reasonable assurance that the grant will be received and that we have complied with the conditions of the grant. Government grants related to assets are included in the balance sheet as a reduction of the cost of the asset and result in reduced depreciation expense over the useful life of

the asset. Government grants that relate to expenses are recognized in the income statement as a reduction of the related expense or as a component of other income.

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### **Asset Retirement Obligations**

The fair value of a liability for an asset retirement obligation is recognized in the period in which it is incurred. The fair value of the liability is measured at discounted estimated cash flows and is adjusted to its present value in subsequent periods as accretion expense is recorded. The corresponding asset retirement costs are capitalized as part of the carrying amount of the related long-lived asset and depreciated over the asset's useful life. The Company's asset retirement obligations are primarily associated with Tonnage Gases on-site long-term supply contracts, under which the Company has built a facility on land owned by the customer and is obligated to remove the facility at the end of the contract term. The Company's asset retirement obligations totaled \$63.4 and \$57.6 at 30 September 2011 and 2010, respectively.

### **Goodwill**

Acquisitions are accounted for using the acquisition method. The purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair market values. Any excess purchase price over the fair market value of the net assets acquired, including identified intangibles, is recorded as goodwill. Preliminary purchase price allocations are made at the date of acquisition and finalized when information needed to affirm underlying estimates is obtained, within a maximum allocation period of one year.

Goodwill is subject to impairment testing at least annually. In addition, goodwill is tested more frequently if a change in circumstances or the occurrence of events indicates that potential impairment exists.

### **Intangible Assets**

Intangible assets with determinable lives primarily consist of customer relationships as well as purchased patents and technology. We have no intangible assets with indefinite lives. The cost of intangible assets with determinable lives is amortized on a straight-line basis over the estimated period of economic benefit. No residual value is estimated for these intangible assets.

Customer relationships are generally amortized over periods of five to twenty-five years. Purchased patents and technology and other intangibles are amortized based on contractual terms, ranging generally from five to twenty years. Amortizable lives are adjusted whenever there is a change in the estimated period of economic benefit.

### **Restricted Cash**

Restricted cash includes the proceeds from the issuance of certain industrial revenue bonds that must be held in escrow until related project spending occurs. Restricted cash is classified as other noncurrent assets in the consolidated balance sheets. Refer to Note 22, Supplemental Information.

### **Pension Benefits**

The cost of pension benefits is recognized over the employees' service period. We are required to use actuarial methods and assumptions in the valuation of defined benefit obligations and the determination of expense. Differences between actual and expected results or changes in the value of obligations and plan assets are not recognized in earnings as they occur but, rather, systematically and gradually over subsequent periods. Refer to Note 15, Retirement Benefits, for disclosures related to our pension and other postretirement benefits.

## **2. NEW ACCOUNTING GUIDANCE**

### **Accounting Guidance Implemented in 2011**

#### **MULTIPLE-DELIVERABLE REVENUE ARRANGEMENTS**

In October 2009, the Financial Accounting Standards Board (FASB) issued authoritative guidance on multiple-deliverable revenue arrangements. This new guidance amends the existing criteria for separating consideration received in multiple-deliverable arrangements and requires that arrangement consideration be allocated at the inception of the arrangement to all deliverables based on their relative selling price. The guidance establishes a hierarchy for determining the selling price of a deliverable which is based on vendor-specific objective evidence, third-party evidence, or management estimates. This guidance was effective for us on 1 October 2010. Upon adoption, the guidance was applied prospectively from the beginning of the fiscal year for new or materially modified arrangements. The adoption of this guidance did not have an effect on our accounting for multiple-deliverable revenue arrangements, nor is it expected to materially impact our consolidated financial

statements in subsequent periods.

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### **CONSOLIDATION OF VARIABLE INTEREST ENTITIES**

In June 2009, the FASB issued authoritative guidance that amends previous guidance for determining whether an entity is a variable interest entity (VIE). It requires an enterprise to perform an analysis to determine whether the Company's variable interests give it a controlling financial interest in a VIE. A company would be required to assess whether it has an implicit financial responsibility to ensure that a VIE operates as designed when determining whether it has the power to direct the activities of the VIE that most significantly impact the entity's economic performance. In addition, ongoing reassessments of whether an enterprise is the primary beneficiary of a VIE are required. This guidance was effective for us 1 October 2010. The adoption of this guidance did not have a material impact on our consolidated financial statements.

### **New Accounting Guidance to be Implemented**

#### **GOODWILL IMPAIRMENT**

In September 2011, the FASB issued authoritative guidance that amends previous guidance related to the manner in which entities test goodwill for impairment. The new guidance provides an entity the option to first perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If it is determined to be more likely than not that the fair value of a reporting unit is less than its carrying amount, entities must perform the quantitative analysis of the goodwill impairment test. Otherwise, the quantitative test is optional. This guidance will be effective for us for annual and interim goodwill impairment tests performed after 30 September 2012. The implementation of this guidance does not impact our consolidated financial statements.

#### **MULTIEMPLOYER PENSION**

In September 2011, the FASB issued authoritative guidance that amends previous guidance related to the disclosure requirements for employers participating in multiemployer pension plans. The purpose of the new disclosures is to provide financial statement users with information about an employer's level of participation in and the financial health of significant plans. Current recognition and measurement guidance for an employer's participation in a multiemployer plan is not affected. This guidance will be effective for our fiscal year 2012 annual disclosures. Based on our level of participation in multiemployer plans, the impact of adopting this guidance should not be material to our consolidated financial statements.

#### **STATEMENT OF COMPREHENSIVE INCOME**

In June 2011, the FASB issued authoritative guidance that amends previous guidance for the presentation of comprehensive income. It eliminates the current option to present other comprehensive income in the statement of changes in equity. Under this revised guidance, an entity will have the option to present the components of net income and other comprehensive income in either a single continuous statement of comprehensive income or in two separate but consecutive financial statements. The standard is effective for us beginning in the first quarter of fiscal year 2013. We are currently evaluating the presentation alternatives for adopting the guidance, but we do not anticipate a material impact on our consolidated financial statements upon adoption.

#### **FAIR VALUE MEASUREMENTS**

In May 2011, the FASB issued authoritative guidance that amends previous guidance for fair value measurement and disclosure requirements. The revised guidance changes certain fair value measurement principles, clarifies the application of existing fair value measurements and expands the disclosure requirements, particularly for Level 3 fair value measurements. This standard is effective for us beginning in the second quarter of fiscal year 2012. We have evaluated the impact of this guidance and concluded that it will not have a material impact on our consolidated financial statements.

### **3. AIRGAS TRANSACTION**

In February 2010, we commenced a tender offer to acquire all the outstanding common stock of Airgas, Inc. (Airgas), including the associated preferred stock purchase rights, for \$60.00 per share in cash, less any required withholding tax. The offer was subject to certain terms and conditions set forth in the Offer to Purchase dated 11 February 2010, as amended, including Airgas' redemption of the preferred stock purchase rights or such rights otherwise being inapplicable to our purchase of Airgas stock. Airgas, a Delaware company, is the largest U.S. distributor of industrial, medical, and specialty gases, and hard goods. On 9 December 2010, we increased the value of our tender offer to \$70.00 per share. At this price, the total value of the transaction would have been approximately \$7.8 billion, including \$6.1 billion of equity and \$1.7 billion of assumed debt. Based on a decision by the Delaware Chancery Court to uphold the decision of Airgas' Board of Directors to retain the preferred stock purchase rights, we withdrew our offer on 15 February 2011.



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In connection with the tender offer, we had secured committed financing in the form of a \$6.7 billion term loan credit facility. On 3 February 2011, we entered into an amended and restated credit agreement providing for an amended \$6.7 billion term loan credit facility with a maturity date of 4 June 2011. The amended credit facility agreement contained the same covenants as the original agreement: one financial covenant, a maximum leverage ratio, and other affirmative and negative covenants, including restrictions on liens and certain subsidiary indebtedness. No additional underwriting fees were incurred in relation to the amended agreement. On 16 February 2011, in connection with the termination of the offer to purchase all outstanding shares of common stock of Airgas, the credit facility was terminated. No early termination penalties were incurred and all fees previously accrued and due under the credit facility were paid as of the date of termination.

Prior to the tender offer, we purchased approximately 1.5 million shares of Airgas stock for a total cost of \$69.6. This amount was recorded as an available-for-sale investment within other noncurrent assets on the consolidated balance sheet. On 16 February 2011, we sold the 1.5 million shares of Airgas stock for total proceeds of \$94.7 and recognized a gain of \$25.1 (\$15.9 after-tax, or \$.07 per share).

For the year ended 30 September 2011, a net loss of \$48.5 (\$31.6 after-tax, or \$.14 per share) was recognized related to this transaction. This amount is reflected separately on the consolidated income statement as Net loss on Airgas transaction and includes amortization of the fees related to the term loan credit facility, the gain on the sale of Airgas stock, and other acquisition-related costs. For the year ended 30 September 2010, \$96.0 (\$60.1 after-tax, or \$.28 per share) in expense was recognized in relation to this transaction. For the years ended 30 September 2011 and 2010, cash payments for the acquisition-related costs were \$156.2 and \$12.0, respectively. These payments are classified as operating activities on the consolidated statements of cash flows.

#### 4. BUSINESS COMBINATIONS

In the second quarter of 2010, we entered into agreements that enabled us to acquire 100% of the outstanding shares of the French SAGA group (SAGA), which consists of SAGA, SAGA Medical, and SAGA Technologies. SAGA is an independent industrial gas provider in France with packaged gases, liquid bulk, and medical businesses. The acquisition of SAGA supports the Merchant Gases segment's integration strategy by enhancing market position in southwest and central France. SAGA revenues for calendar year 2009 were approximately 25 million, or \$35.

Under the terms of these agreements, we purchased 51.47% of the shares of SAGA on 1 March 2010 for 34.5 million or \$47.2 (\$25.0 net of cash acquired of \$22.2) with the remaining shares purchased on 30 November 2010 for the fixed price of 44.8 million, or approximately \$62.0 under a put and call option structure. At 30 September 2010, this structure was accounted for as a financing of the purchase of the remaining shares and reported within short-term borrowings on the consolidated balance sheet.

The acquisition of SAGA was accounted for as a business combination, and its results of operations were included in our consolidated income statement after the acquisition date. The purchase price was allocated to the assets acquired and the liabilities assumed based on their fair values as of the acquisition date, with the amount exceeding the fair value recorded as goodwill. During the fourth quarter of 2010, we finalized the purchase price allocation with no material adjustments made to the preliminary valuation. The final purchase price allocation included identified intangibles of \$42.5, plant and equipment of \$40.8, goodwill of \$35.0 (which is deductible for tax purposes), and other net assets of \$12.7. Additionally, deferred tax liabilities of \$23.0 were recognized. The identified intangibles primarily relate to customer relationships and are being amortized over 23 years.

Goodwill, which was assigned to the Merchant Gases segment, largely consisted of expected revenue and cost synergies resulting from the business combination. Revenue synergies will result primarily from the sale of differentiated offerings and cost synergies from combining supply chains and optimization of the combined logistics. The fair value of plant and equipment was quantified primarily using a cost approach, by estimating reproduction/replacement cost consistent with assumptions market participants would use. Intangible assets consisted primarily of customer relationships for which fair value was determined using a discounted cash flow analysis under the income approach. The income approach required estimating a number of factors, including projected revenue growth, customer attrition rates, profit margin, and the discount rate. The remaining identifiable assets and liabilities were primarily cash, accounts receivable, and payables and accrued liabilities, for which book value approximated fair value.

**Table of Contents****5. GLOBAL COST REDUCTION PLAN****2009 Plan**

The 2009 results from continuing operations included a total charge of \$298.2 (\$200.3 after-tax, or \$.94 per share) for the global cost reduction plan. In the first quarter of 2009, we announced the global cost reduction plan designed to lower our cost structure and better align our businesses to reflect rapidly declining economic conditions around the world. The 2009 first-quarter results included a charge of \$174.2 (\$116.1 after-tax, or \$.55 per share). In the third quarter 2009, due to the continuing slow economic recovery, we committed to additional actions associated with our global cost reduction plan that resulted in a charge of \$124.0 (\$84.2 after-tax, or \$.39 per share).

The total 2009 charge included \$210.0 for severance and other benefits, including pension-related costs, associated with the elimination of approximately 2,550 positions from our global workforce. The reductions were targeted at reducing overhead and infrastructure costs, reducing and refocusing elements of our technology and business development spending, lowering our plant operating costs, and the closure of certain manufacturing facilities. The remainder of this charge, \$88.2, was for business exits and asset management actions. Assets held for sale were written down to net realizable value, and an environmental liability of \$16.0 was recognized. This environmental liability resulted from a decision to sell a production facility which was sold in December 2009. Refer to Note 16, Commitments and Contingencies, for additional information.

**Business Segments**

The global cost reduction plan charge recorded in 2009 was excluded from segment operating profit. The table below displays how this charge related to the businesses at the segment level:

|                                       | Severance and<br>Other<br>Benefits | Asset<br>Impairments/<br>Other Costs | Total   |
|---------------------------------------|------------------------------------|--------------------------------------|---------|
| Merchant Gases                        | \$127.5                            | \$7.2                                | \$134.7 |
| Tonnage Gases                         | 14.2                               |                                      | 14.2    |
| Electronics and Performance Materials | 30.6                               | 58.9                                 | 89.5    |
| Equipment and Energy                  | 37.7                               | 22.1                                 | 59.8    |
| 2009 Charge                           | \$210.0                            | \$88.2                               | \$298.2 |

During 2010, we revised our estimate of the costs associated with the 2009 global cost reduction plan. The unfavorable impact of additional severance and other benefits was primarily offset by favorable variances related to completed business exits and asset management actions. These adjustments to the charge were excluded from segment operating profit and did not have a material impact on any individual segment. As of 30 September 2011, the planned actions associated with the global cost reduction plan were completed.

**Accrual Balance**

The following table summarizes changes to the carrying amount of the accrual for the global cost reduction plan:

|                                     | Severance and<br>Other<br>Benefits | Asset<br>Impairments/<br>Other Costs | Total   |
|-------------------------------------|------------------------------------|--------------------------------------|---------|
| First quarter 2009 charge           | \$120.0                            | \$54.2                               | \$174.2 |
| Third quarter 2009 charge           | 90.0                               | 34.0                                 | 124.0   |
| Environmental charge <sup>(A)</sup> |                                    | (16.0)                               | (16.0)  |
| Noncash items                       | (33.8) <sup>(B)</sup>              | (66.1)                               | (99.9)  |

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|                                     |                      |           |              |
|-------------------------------------|----------------------|-----------|--------------|
| Cash expenditures                   | (75.3)               | (.9)      | (76.2)       |
| Currency translation adjustment     | 4.3                  |           | 4.3          |
| 30 September 2009                   | \$105.2              | \$5.2     | \$110.4      |
| Adjustment to charge                | 7.6                  | (6.6)     | 1.0          |
| Environmental charge <sup>(A)</sup> |                      | 1.5       | 1.5          |
| Noncash items                       | (2.8) <sup>(B)</sup> | .1        | (2.7)        |
| Cash expenditures                   | (102.8)              | (.2)      | (103.0)      |
| Currency translation adjustment     | (5.3)                |           | (5.3)        |
| 30 September 2010                   | \$1.9                | \$        | \$1.9        |
| <b>Cash expenditures</b>            | <b>(1.9)</b>         | <b>\$</b> | <b>(1.9)</b> |
| <b>30 September 2011</b>            | <b>\$</b>            | <b>\$</b> | <b>\$</b>    |

(A) Reflected in accrual for environmental obligations. See Note 16, Commitments and Contingencies.

(B) Primarily pension-related costs, which are reflected in the accrual for pension benefits.

**Table of Contents****6. DISCONTINUED OPERATIONS**

In 2007, we implemented several changes to improve performance in our U.S. Healthcare business, including management changes, product and service offering simplification, and other measures. However, market and competitive conditions were more challenging than anticipated and financial results did not meet expectations. In response to the disappointing financial results, during the third quarter of 2008, management conducted an evaluation of the strategic alternatives for the business. In July 2008, the Board of Directors authorized management to pursue the sale of this business. Accordingly, beginning in the fourth quarter of 2008, the U.S. Healthcare business was accounted for as discontinued operations.

In the first quarter of 2009, we recorded an impairment charge of \$48.7 (\$30.9 after-tax, or \$.15 per share), reflecting a revision in the estimated net realizable value of the U.S. Healthcare business. Also, a tax benefit of \$8.8, or \$.04 per share, was recorded to revise the estimated tax benefit related to previously recognized impairment charges.

As a result of events that occurred during the second quarter of 2009, which increased our ability to realize tax benefits associated with the impairment charges recorded in 2008, we recognized a one-time tax benefit of \$16.7, or \$.08 per share.

During the third quarter of 2009, we sold more than half of our remaining U.S. Healthcare business to OptionCare Enterprises, Inc., a subsidiary of Walgreen Co., and Landauer-Metropolitan, Inc. (LMI) for combined cash proceeds of \$38.1. We recognized an after-tax gain of \$.3 resulting from these sales combined with adjustments to the net realizable value of the remaining businesses.

During the fourth quarter of 2009, through a series of transactions with Rotech Healthcare, Inc. and with LMI, we sold our remaining U.S. Healthcare business for cash proceeds of \$12.1. A net after-tax loss of \$.7 was recognized. These transactions completed the disposal of the U.S. Healthcare business.

During the third quarter of 2011, a tax benefit of \$8.9, or \$.04 per share, was recognized related to the U.S. Healthcare business resulting from the completion of an audit of tax years 2007 and 2008 by the U.S. Internal Revenue Service. Refer to Note 21, Income Taxes, for further details on the audit settlement.

The operating results classified as discontinued operations, which primarily relate to the U.S. Healthcare business, are summarized below:

|   | <b>2011</b>  | 2010 | 2009    |
|---|--------------|------|---------|
| Sales   | \$           | \$   | \$125.2 |
| Loss before taxes   | \$           | \$   | \$(5.5) |
| Income tax benefit  | <b>8.9</b>   |      | 2.1     |
| Income (Loss) from operations of discontinued operations      | <b>8.9</b>   |      | (3.4)   |
| Loss on sale of businesses and impairment/write-down to       |              |      |         |
| estimated net realizable value, net of tax                    |              |      | (5.2)   |
| <b>Income (Loss) from Discontinued Operations, net of tax</b> | <b>\$8.9</b> | \$   | \$(8.6) |

**Table of Contents****7. INVENTORIES**

The components of inventories are as follows:

| <b>30 September</b>                      | <b>2011</b>    | <b>2010</b> |
|--|----------------|-------------|
| Inventories at FIFO cost                 |                |             |
| Finished goods                           | <b>\$489.1</b> | \$405.3     |
| Work in process                          | <b>29.9</b>    | 29.3        |
| Raw materials, supplies and other        | <b>258.2</b>   | 208.2       |
|  | <b>777.2</b>   | 642.8       |
| Less: Excess of FIFO cost over LIFO cost | <b>(95.8)</b>  | (71.2)      |
|  | <b>\$681.4</b> | \$571.6     |

Inventories valued using the LIFO method comprised 42.3% and 40.5% of consolidated inventories before LIFO adjustment at 30 September 2011 and 2010, respectively. Liquidation of LIFO inventory layers in 2011 and 2010 did not materially affect the results of operations. During 2009, there was no liquidation of prior years' LIFO inventory layers.

FIFO cost approximates replacement cost. Our inventory has a high turnover, and as a result, there is little difference between the original cost of an item and its current replacement cost.

**8. SUMMARIZED FINANCIAL INFORMATION OF EQUITY AFFILIATES**

The following table presents summarized financial information on a combined 100% basis of the companies accounted for by the equity method. Amounts presented include the accounts of the following equity affiliates:

Air Products South Africa (Proprietary) Limited (50%);  
 Bangkok Cogeneration Company Limited (49%);  
 Bangkok Industrial Gases Co., Ltd. (49%);  
 Chengdu Air & Gas Products Ltd. (50%);  
 Daido Air Products Electronics, Inc. (20%);  
 DuPont Air Products NanoMaterials Limited (50%);  
 Helap S.A. (50%);  
 High-Tech Gases (Beijing) Co., Ltd. (50%);  
 INFRA Group (40%);

INOX Air Products Limited (50%);  
 Kulim Industrial Gases Sdn. Bhd. (50%);  
 Sapio Produzione Idrogeno Ossigeno S.r.l. (49%);  
 SembCorp Air Products (HyCo) Pte. Ltd. (40%);  
 Tecnologia en Nitrogeno S. de R.L. de C.V. (50%);  
 Tyczka Industrie-Gases GmbH (50%);  
 WuXi Hi-Tech Gas Co., Ltd. (50%);  
 and principally, other industrial gas producers.

|                          | <b>2011</b>      | <b>2010</b> | <b>2009</b> |
|--------------------------|------------------|-------------|-------------|
| Current assets           | <b>\$1,247.7</b> | \$1,133.4   |             |
| Noncurrent assets        | <b>2,189.8</b>   | 2,071.6     |             |
| Current liabilities      | <b>742.8</b>     | 788.9       |             |
| Noncurrent liabilities   | <b>613.6</b>     | 559.9       |             |
| Net sales                | <b>2,650.5</b>   | 2,293.4     | 2,129.7     |
| Sales less cost of sales | <b>987.2</b>     | 964.4       | 874.4       |
| Operating income         | <b>537.0</b>     | 454.5       | 404.7       |
| Net income               | <b>351.3</b>     | 293.0       | 257.7       |

Dividends received from equity affiliates were \$105.9, \$75.4, and \$52.9 in 2011, 2010, and 2009, respectively.

The investment in net assets of and advances to equity affiliates as of 30 September 2011 and 2010 included investment in foreign affiliates of \$972.5 and \$877.7, respectively.

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As of 30 September 2011 and 2010, the amount of investment in companies accounted for by the equity method included goodwill in the amount of \$62.6 and \$60.2, respectively.

**Table of Contents****9. PLANT AND EQUIPMENT**

The major classes of plant and equipment are as follows:

| <b>30 September</b>                   | Average Useful Life | <b>2011</b>      | <b>2010</b> |
|---------------------------------------|---------------------|------------------|-------------|
| Land                                  |                     | <b>\$173.2</b>   | \$172.3     |
| Buildings                             | 30 years            | <b>919.5</b>     | 886.2       |
| Production facilities <sup>(A)</sup>  |                     |                  |             |
| Merchant Gases                        | 15 years            | <b>3,256.4</b>   | 3,346.3     |
| Tonnage Gases                         | 15 to 20 years      | <b>6,266.5</b>   | 5,691.4     |
| Electronics and Performance Materials | 10 to 15 years      | <b>1,862.3</b>   | 2,061.2     |
| Equipment and Energy                  | 5 to 20 years       | <b>165.9</b>     | 296.5       |
| Total production facilities           |                     | <b>11,551.1</b>  | 11,395.4    |
| Distribution equipment <sup>(B)</sup> | 5 to 25 years       | <b>3,092.4</b>   | 2,918.6     |
| Other machinery and equipment         | 10 to 25 years      | <b>252.3</b>     | 248.0       |
| Construction in progress              |                     | <b>1,238.6</b>   | 689.2       |
| Plant and equipment, at cost          |                     | <b>17,227.1</b>  | 16,309.7    |
| Less: accumulated depreciation        |                     | <b>9,815.1</b>   | 9,258.4     |
| Plant and equipment, net              |                     | <b>\$7,412.0</b> | \$7,051.3   |

(A) Depreciable lives of production facilities related to long-term customer supply contracts are matched to the contract lives.

(B) The depreciable lives for various types of distribution equipment are 10 to 25 years for cylinders, depending on the nature and properties of the product; 20 years for tanks; 7.5 years for customer stations; and 5 to 15 years for tractors and trailers. Depreciation expense was \$851.0, \$837.7, and \$815.9 in 2011, 2010, and 2009, respectively.

**10. GOODWILL AND INTANGIBLE ASSETS**

Changes to the carrying amount of consolidated goodwill by segment are as follows:

| <b>30 September</b>                   | 2010    | Acquisitions and Adjustments | Currency Translation and Other | <b>2011</b>    |
|---------------------------------------|---------|------------------------------|--------------------------------|----------------|
| Merchant Gases                        | \$595.7 | \$4.9                        | \$(25.2)                       | <b>\$575.4</b> |
| Tonnage Gases                         | 15.5    |                              | (1.4)                          | <b>14.1</b>    |
| Electronics and Performance Materials | 303.4   |                              | (.5)                           | <b>302.9</b>   |
|                                       | \$914.6 | \$4.9                        | \$(27.1)                       | <b>\$892.4</b> |

| <b>30 September</b>                   | 2009    | Acquisitions and Adjustments | Currency Translation and Other | <b>2010</b> |
|---------------------------------------|---------|------------------------------|--------------------------------|-------------|
| Merchant Gases                        | \$601.3 | \$19.1                       | \$(24.7)                       | \$595.7     |
| Tonnage Gases                         | 16.3    | (.9)                         | .1                             | 15.5        |
| Electronics and Performance Materials | 298.4   | .3                           | 4.7                            | 303.4       |
|                                       | \$916.0 | \$18.5                       | \$(19.9)                       | \$914.6     |

Acquisitions and adjustments related to the Merchant Gases segment in 2010 included \$35.0 associated with the SAGA acquisition, offset by a reduction in goodwill for an adjustment related to a previous acquisition of \$16.9. Refer to Note 4, Business Combinations, for further detail on

the SAGA acquisition.

In the fourth quarter of 2011, we conducted the required annual test of goodwill for impairment. We determined that the fair value of each of the reporting units substantially exceeded its carrying value, and therefore there were no indications of impairment.

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The table below provides details of acquired intangible assets at 30 September 2011 and 2010:

|                        | Average<br>Amortization<br>Period | 30 September 2011 |                             |         | 30 September 2010 |                             |         |
|------------------------|-----------------------------------|-------------------|-----------------------------|---------|-------------------|-----------------------------|---------|
|                        |                                   | Gross             | Accumulated<br>Amortization | Net     | Gross             | Accumulated<br>Amortization | Net     |
| Customer relationships | 11.6 years                        | \$271.2           | \$(74.3)                    | \$196.9 | \$283.3           | \$(62.7)                    | \$220.6 |
| Patents and technology | 11.9 years                        | 98.0              | (76.8)                      | 21.2    | 99.0              | (73.6)                      | 25.4    |
| Other                  | 30.3 years                        | 78.9              | (36.3)                      | 42.6    | 73.3              | (33.6)                      | 39.7    |
|                        |                                   | \$448.1           | \$(187.4)                   | \$260.7 | \$455.6           | \$(169.9)                   | \$285.7 |

Amortization expense for intangible assets was \$22.9, \$25.7, and \$24.4 in 2011, 2010, and 2009, respectively.

Projected annual amortization expense for intangible assets as of 30 September 2011 is as follows:

|            |         |
|------------|---------|
| 2012       | \$21.1  |
| 2013       | 20.4    |
| 2014       | 19.8    |
| 2015       | 19.5    |
| 2016       | 17.8    |
| Thereafter | 162.1   |
|            | \$260.7 |

**11. LEASES****Lessee Accounting**

Capital leases, primarily for the right to use machinery and equipment, are included with owned plant and equipment on the consolidated balance sheet in the amount of \$20.3 and \$18.2 at 30 September 2011 and 2010, respectively. Related amounts of accumulated depreciation are \$12.0 and \$12.1, respectively.

Operating leases principally relate to real estate and also include aircraft, distribution equipment, and vehicles. Certain leases include escalation clauses, renewal, and/or purchase options. Rent expense is recognized on a straight-line basis over the minimum lease term. Rent expense under operating leases, including month-to-month agreements, was \$96.7 in 2011, \$93.0 in 2010, and \$89.9 in 2009.

At 30 September 2011, minimum payments due under leases are as follows:

|            | Capital Leases | Operating Leases |
|------------|----------------|------------------|
| 2012       | \$2.8          | \$53.3           |
| 2013       | 1.6            | 43.7             |
| 2014       | 1.3            | 34.6             |
| 2015       | 1.1            | 28.9             |
| 2016       | 1.0            | 24.4             |
| Thereafter | 1.3            | 35.4             |
|            | \$9.1          | \$220.3          |

The present value of the above future capital lease payments totaled \$7.5, of which \$2.2 was classified as current and \$5.3 as long-term in the liability section of the consolidated balance sheet. At 30 September 2010, the present value of the future capital lease payments was \$9.8, of which \$1.4 was classified as current and \$8.4 as long-term. Refer to Note 14, Debt.

**Lessor Accounting**

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As discussed under Revenue Recognition in Note 1, Major Accounting Policies, certain contracts associated with facilities that are built to provide product to a specific customer are required to be accounted for as leases. Lease receivables, net, were included principally in noncurrent capital lease receivables on our consolidated balance sheets with the remaining balance in current capital lease receivables. Refer to Note 22, Supplemental Information.

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The components of lease receivables were as follows:

| <b>30 September</b>                     | <b>2011</b>      | <b>2010</b> |
|---|------------------|-------------|
| Gross minimum lease payments receivable | <b>\$1,663.2</b> | \$1,195.5   |
| Unearned interest income                | <b>(573.3)</b>   | (386.0)     |
| <b>Lease Receivables, net</b>           | <b>\$1,089.9</b> | \$809.5     |

Lease payments collected in 2011, 2010, and 2009 were \$84.6, \$68.0, and \$53.6, respectively.

At 30 September 2011, minimum lease payments to be collected are as follows:

|            |                  |
|------------|------------------|
| 2012       | \$120.9          |
| 2013       | 130.8            |
| 2014       | 129.2            |
| 2015       | 127.1            |
| 2016       | 125.2            |
| Thereafter | 1,030.0          |
|            | <b>\$1,663.2</b> |

**12. FINANCIAL INSTRUMENTS****Currency Price Risk Management**

Our earnings, cash flows, and financial position are exposed to foreign currency risk from foreign currency denominated transactions and net investments in foreign operations. It is our policy to minimize our cash flow volatility to changes in currency exchange rates. This is accomplished by identifying and evaluating the risk that our cash flows will change in value due to changes in exchange rates and by executing the appropriate strategies necessary to manage such exposures. Our objective is to maintain economically balanced currency risk management strategies that provide adequate downside protection.

**Forward Exchange Contracts**

We enter into forward exchange contracts to reduce the cash flow exposure to foreign currency fluctuations associated with highly anticipated cash flows and certain firm commitments such as the purchase of plant and equipment. The maximum remaining term of any forward exchange contract currently outstanding and designated as a cash flow hedge at 30 September 2011 is 1.9 years. Forward exchange contracts are also used to hedge the value of investments in certain foreign subsidiaries and affiliates by creating a liability in a currency in which we have a net equity position. The primary currency pair in this portfolio of forward contracts is the Euro/U.S. dollar.

In addition to the forward exchange contracts that are designated as hedges, we utilize forward exchange contracts that are not designated as hedges. These contracts are used to economically hedge foreign currency-denominated monetary assets and liabilities, primarily working capital. The primary objective of these forward contracts is to protect the value of foreign currency-denominated monetary assets and liabilities from the effects of volatility in foreign exchange rates that might occur prior to their receipt or settlement. This portfolio of forward exchange contracts comprises many different foreign currency pairs, with a profile that changes from time to time depending on business activity and sourcing decisions.

The table below summarizes our outstanding currency price risk management instruments:

| <b>30 September</b> | <b>2011</b>      |                              | <b>2010</b>      |                              |
|---------------------|------------------|------------------------------|------------------|------------------------------|
|                     | US\$<br>Notional | Years<br>Average<br>Maturity | US\$<br>Notional | Years<br>Average<br>Maturity |
|                     |                  |                              |                  |                              |

| <b>Forward Exchange Contracts</b>       |                  |           |                  |            |
|---|------------------|-----------|------------------|------------|
| Cash flow hedges                        | \$1,512.1        | .4        | \$1,605.5        | .5         |
| Net investment hedges                   | 635.8            | 2.0       | 648.5            | 3.0        |
| Not designated                          | 226.3            | .1        | 373.6            | .2         |
| <b>Total Forward Exchange Contracts</b> | <b>\$2,374.2</b> | <b>.8</b> | <b>\$2,627.6</b> | <b>1.1</b> |

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In addition to the above, we use foreign currency-denominated debt and qualifying intercompany loans that are related to an outstanding borrowing from a third party to hedge the foreign currency exposures of our net investment in certain foreign affiliates. The designated foreign currency denominated debt at 30 September 2011 included 742.1 million and 30 September 2010 included 782.1 million and NT\$967.0 million. The designated intercompany loans were 437.0 million at 30 September 2011 and 2010.

**Debt Portfolio Management**

It is our policy to identify on a continuing basis the need for debt capital and evaluate the financial risks inherent in funding the Company with debt capital. Reflecting the result of this ongoing review, the debt portfolio and hedging program are managed with the objectives and intent to (1) reduce funding risk with respect to borrowings made by us to preserve our access to debt capital and provide debt capital as required for funding and liquidity purposes, and (2) manage the aggregate interest rate risk and the debt portfolio in accordance with certain debt management parameters.

**Interest Rate Swap Contracts**

We enter into interest rate swap contracts to change the fixed/variable interest rate mix of our debt portfolio in order to maintain the percentage of fixed- and variable-rate debt within the parameters set by management. In accordance with these parameters, the agreements are used to optimize interest rate risks and costs inherent in our debt portfolio. Our interest rate swap portfolio will generally consist of fixed to floating swaps which are designated as fair value hedges and pre-issuance interest rate swap agreements to hedge the interest rate on anticipated fixed-rate debt issuance which are designated as cash flow hedges. At 30 September 2011, the outstanding interest rate swaps were denominated in U.S. dollars and Euros. The maximum remaining hedged term of any interest rate swap designated as a cash flow hedge is .4 years. The notional amount of the interest rate swap agreements are equal to or less than the designated debt instrument being hedged. When interest rate swaps are used, the indices of the swap instruments and the debt to which they are designated are the same. It is our policy not to enter into any interest rate swap contracts which lever a move in interest rates on a greater than one-to-one basis.

**Cross Currency Interest Rate Swap Contracts**

We enter into cross currency interest rate swap contracts when risk management deems necessary. These contracts may entail both the exchange of fixed- and floating-rate interest payments periodically over the life of the agreement and the exchange of one currency for another currency at inception and at a specified future date. These contracts effectively convert the currency denomination of a debt instrument into another currency in which we have a net equity position while changing the interest rate characteristics of the instrument. The contracts are used to hedge certain net investments in foreign operations. The current cross currency swap portfolio consists of a single fixed-to-fixed swap between U.S. dollars and British Pound Sterling.

The following table summarizes our outstanding interest rate swaps and cross currency interest rate swaps:

|   | 30 September 2011 |       |                      |                              | 30 September 2010 |       |                      |                              |
|---|-------------------|-------|----------------------|------------------------------|-------------------|-------|----------------------|------------------------------|
|   | US\$<br>Notional  | Pay % | Average<br>Receive % | Years<br>Average<br>Maturity | US\$<br>Notional  | Pay % | Average<br>Receive % | Years<br>Average<br>Maturity |
| Interest rate swaps (fair value hedge)                    | \$583.9           | LIBOR | 3.38%                | 4.5                          | \$617.0           | LIBOR | 3.66%                | 3.8                          |
| Cross currency interest rate swaps (net investment hedge) | \$32.2            | 5.54% | 5.48%                | 2.5                          | \$32.2            | 5.54% | 5.48%                | 3.5                          |
| Interest rate swaps (cash flow hedge)                     | \$300.0           | 2.33% | LIBOR                | .4                           | \$                |       |                      |                              |

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The table below summarizes the fair value and balance sheet location of our outstanding derivatives:

| 30 September   |                         | 2011           | 2010           |                              | 2011          | 2010          |
|--|-------------------------|----------------|----------------|------------------------------|---------------|---------------|
|  |                         | Fair           | Fair           |                              | Fair          | Fair          |
|  | Balance Sheet Location  | Value          | Value          | Balance Sheet Location       | Value         | Value         |
| <b>Derivatives Designated as Hedging Instruments</b>       |                         |                |                |                              |               |               |
| Forward exchange contracts                                 | Other receivables       | \$22.0         | \$29.8         | Accrued liabilities          | \$33.0        | \$22.3        |
| Interest rate swap contracts                               | Other receivables       | 5.8            | 6.6            | Accrued liabilities          | 3.8           | 1.3           |
| Forward exchange contracts                                 | Other noncurrent assets | 45.0           | 38.7           | Other noncurrent liabilities | 1.0           | 19.9          |
| Interest rate swap contracts                               | Other noncurrent assets | 42.4           | 33.1           | Other noncurrent liabilities | 2.2           | 2.4           |
| <b>Total Derivatives Designated as Hedging Instruments</b> |                         | <b>\$115.2</b> | <b>\$108.2</b> |                              | <b>\$40.0</b> | <b>\$45.9</b> |
| <b>Derivatives Not Designated as Hedging Instruments</b>   |                         |                |                |                              |               |               |
| Forward exchange contracts                                 | Other receivables       | \$3.0          | \$6.2          | Accrued liabilities          | \$3.8         | \$8.3         |
| <b>Total Derivatives</b>                                   |                         | <b>\$118.2</b> | <b>\$114.4</b> |                              | <b>\$43.8</b> | <b>\$54.2</b> |

Refer to Note 13, Fair Value Measurements, which defines fair value, describes the method for measuring fair value, and provides additional disclosures regarding fair value measurements.

The table below summarizes the gain or loss related to our cash flow hedges, fair value hedges, net investment hedges, and derivatives not designated as hedging instruments.

|   | Year Ended 30 September    |          |               |         |                      |        |         |          |
|---|----------------------------|----------|---------------|---------|----------------------|--------|---------|----------|
|   | Forward Exchange Contracts |          | Currency Debt |         | Other <sup>(A)</sup> |        | Total   |          |
|   | 2011                       | 2010     | 2011          | 2010    | 2011                 | 2010   | 2011    | 2010     |
| <b>Cash Flow Hedges, net of tax</b>   |                            |          |               |         |                      |        |         |          |
| Net gain (loss) recognized in OCI (effective portion)                       | \$6.4                      | \$(11.3) | \$            | \$      | \$(5.6)              | \$(.3) | \$8     | \$(11.6) |
| Net (gain) loss reclassified from OCI                                       |                            |          |               |         |                      |        |         |          |
| to sales/cost of sales (effective portion)                                  | 8.4                        | 9.6      |               |         |                      | (2.0)  | 8.4     | 7.6      |
| Net loss reclassified from OCI to other income (effective portion)          | 1.2                        | 6.2      |               |         |                      |        | 1.2     | 6.2      |
| Net loss reclassified from OCI to interest expense (effective portion)      |                            |          |               |         | 1.2                  | 1.2    | 1.2     | 1.2      |
| Net (gain) loss reclassified from OCI to other income (ineffective portion) | .7                         | (.2)     |               |         |                      |        | .7      | (.2)     |
| <b>Fair Value Hedges</b>  |                            |          |               |         |                      |        |         |          |
| Net gain recognized in interest expense <sup>(B)</sup>                      | \$                         | \$       | \$            | \$      | \$9.4                | \$19.7 | \$9.4   | \$19.7   |
| <b>Net Investment Hedges, net of tax</b>                                    |                            |          |               |         |                      |        |         |          |
| Net gain recognized in OCI  | \$5.7                      | \$58.4   | \$16.9        | \$109.8 | \$                   | \$4    | \$22.6  | \$168.6  |
| <b>Derivatives Not Designated as Hedging Instruments</b>                    |                            |          |               |         |                      |        |         |          |
| Net (loss) recognized in other income <sup>(C)</sup>                        | \$(5.8)                    | \$(24.7) | \$            | \$      | \$                   | \$     | \$(5.8) | \$(24.7) |

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- (A) Other includes the impact on other comprehensive income (OCI) and earnings primarily related to interest rate swaps.
- (B) The impact of fair value hedges noted above was largely offset by gains and losses resulting from the impact of changes in related interest rates on recognized outstanding debt.
- (C) The impact of the non-designated hedges noted above was largely offset by gains and losses, respectively, resulting from the impact of changes in exchange rates on recognized assets and liabilities denominated in nonfunctional currencies.

The amount of cash flow hedges unrealized gains and losses at 30 September 2011 that are expected to be reclassified to earnings in the next twelve months are not material.

The cash flows related to all derivative contracts are reported in the operating activities section of the consolidated statements of cash flows.

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### **Credit Risk-Related Contingent Features**

Certain derivative instruments are executed under agreements that require us to maintain a minimum credit rating with both Standard & Poor's and Moody's. If our credit rating falls below this threshold, the counterparty to the derivative instruments has the right to request full collateralization on the derivatives' net liability position. The net liability position of derivatives with credit risk-related contingent features was \$10.5 as of 30 September 2011 and \$4.2 as of 30 September 2010. Because our current credit rating is above the various pre-established thresholds, no collateral has been posted on these liability positions.

### **Counterparty Credit Risk Management**

We execute all financial derivative transactions with counterparties that are highly rated financial institutions, all of which are investment grade at this time. Some of our underlying derivative agreements give us the right to require the institution to post collateral if its credit rating falls below the pre-established thresholds with Standard & Poor's or Moody's. These are the same agreements referenced in Credit Risk-Related Contingent Features above. The collateral that the counterparties would be required to post was \$66.1 as of 30 September 2011 and \$52.2 as of 30 September 2010. No financial institution is required to post collateral at this time, as all have credit ratings at or above the threshold.

## **13. FAIR VALUE MEASUREMENTS**

Fair value is defined as an exit price (i.e., the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date). The methods and assumptions used to measure the fair value of financial instruments are as follows:

### **Derivatives**

The fair value of our interest rate swap agreements and forward exchange contracts are quantified using the income approach and are based on estimates using standard pricing models. These models take into account the value of future cash flows as of the balance sheet date, discounted to a present value using discount factors that match both the time to maturity and currency of the underlying instruments. The computation of the fair values of these instruments is generally performed by the Company. These standard pricing models utilize inputs which are derived from or corroborated by observable market data such as interest rate yield curves and currency spot and forward rates. In addition, on an ongoing basis, we randomly test a subset of our valuations against valuations received from the transaction's counterparty to validate the accuracy of our standard pricing models. Counterparties to these derivative contracts are highly rated financial institutions.

Refer to Note 12, Financial Instruments, for a description of derivative instruments, including details on the balance sheet line classifications.

### **Available-for-Sale Securities**

The fair value of available-for-sale securities is based on a market approach, specifically quoted market prices in publicly traded companies from the New York Stock Exchange and NASDAQ. These investments are reported within other noncurrent assets on the consolidated balance sheet, with holding gains and losses recorded to OCI, net of tax.

At 30 September 2010, the available-for-sale securities primarily included the investment in Airgas stock of \$102.5. At 30 September 2010, the change in unrealized appreciation of this investment carried at fair value was \$32.9 (\$20.6 after-tax). On 16 February 2011, we sold the shares of Airgas stock. Refer to Note 3, Airgas Transaction, for further detail.

### **Long-term Debt**

The fair value of our debt is based on estimates using standard pricing models that take into account the value of future cash flows as of the balance sheet date, discounted to a present value using discount factors that match both the time to maturity and currency of the underlying instruments. These standard valuation models utilize observable market data such as interest rate yield curves and currency spot rates. We generally perform the computation of the fair value of these instruments.

### **Other Liabilities**

Other liabilities include the obligation to purchase 25% of the remaining shares of Cryoservice Limited (CSL) in December 2011. CSL is not publicly traded and therefore, no observable market exists for the shares. The fair value of the outstanding liability was determined using an

internally developed valuation model that was based on a multiple of earnings formula. The liability is reported in payables and accrued liabilities and other noncurrent liabilities on the consolidated balance sheet as of 30 September 2011 and 2010, respectively. Refer to Note 19, Noncontrolling Interests, for additional information.

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The carrying values and fair values of financial instruments were as follows:

| 30 September                              | 2011           |            | 2010           |            |
|---|----------------|------------|----------------|------------|
|   | Carrying Value | Fair Value | Carrying Value | Fair Value |
| <b>Assets</b>                             |                |            |                |            |
| Derivatives                               |                |            |                |            |
| Forward exchange contracts                | \$70.0         | \$70.0     | \$74.7         | \$74.7     |
| Interest rate swap contracts              | 48.2           | 48.2       | 39.7           | 39.7       |
| Available-for-sale securities             |                |            |                |            |
| Airgas investment                         |                |            | 102.5          | 102.5      |
| Other investments                         |                |            | 1.1            | 1.1        |
| <b>Liabilities</b>                        |                |            |                |            |
| Derivatives                               |                |            |                |            |
| Forward exchange contracts                | \$37.8         | \$37.8     | \$50.5         | \$50.5     |
| Interest rate swap contracts              | 6.0            | 6.0        | 3.7            | 3.7        |
| Long-term debt, including current portion | 3,999.7        | 4,284.5    | 3,842.3        | 4,146.4    |
| Other liabilities                         | 51.0           | 51.0       | 42.0           | 42.0       |

The carrying amounts reported in the balance sheet for cash and cash items, trade receivables, payables and accrued liabilities, accrued income taxes, and short-term borrowings approximate fair value due to the short-term nature of these instruments. Accordingly, these items have been excluded from the above table.

The fair value hierarchy prioritizes the inputs to valuation techniques used to measure fair value into three broad levels as follows:

Level 1 Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 Inputs that are observable for the asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the asset or liability.

Level 3 Inputs that are unobservable for the asset or liability based on our own assumptions (about the assumptions market participants would use in pricing the asset or liability).

The following table summarizes assets and liabilities measured at fair value on a recurring basis in the consolidated balance sheets:

|                                   | 30 September 2011 |           |                |           | 30 September 2010 |                |                |           |
|-----------------------------------|-------------------|-----------|----------------|-----------|-------------------|----------------|----------------|-----------|
|                                   | Total             | Level 1   | Level 2        | Level 3   | Total             | Level 1        | Level 2        | Level 3   |
| <b>Assets at Fair Value</b>       |                   |           |                |           |                   |                |                |           |
| Derivatives                       |                   |           |                |           |                   |                |                |           |
| Forward exchange contracts        | \$70.0            | \$        | \$70.0         | \$        | \$74.7            | \$             | \$74.7         | \$        |
| Interest rate swap contracts      | 48.2              |           | 48.2           |           | 39.7              |                | 39.7           |           |
| Available-for-sale securities     |                   |           |                |           |                   |                |                |           |
| Airgas investment                 |                   |           |                |           | 102.5             | 102.5          |                |           |
| Other investments                 |                   |           |                |           | 1.1               | 1.1            |                |           |
| <b>Total Assets at Fair Value</b> | <b>\$118.2</b>    | <b>\$</b> | <b>\$118.2</b> | <b>\$</b> | <b>\$218.0</b>    | <b>\$103.6</b> | <b>\$114.4</b> | <b>\$</b> |
| <b>Liabilities at Fair Value</b>  |                   |           |                |           |                   |                |                |           |
| Derivatives                       |                   |           |                |           |                   |                |                |           |
| Forward exchange contracts        | \$37.8            | \$        | \$37.8         | \$        | \$50.5            | \$             | \$50.5         | \$        |
| Interest rate swap contracts      | 6.0               |           | 6.0            |           | 3.7               |                | 3.7            |           |

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|  |               |    |               |               |        |    |        |        |
|--|---------------|----|---------------|---------------|--------|----|--------|--------|
| Other liabilities                      | <b>51.0</b>   |    |               | <b>51.0</b>   | 42.0   |    |        | 42.0   |
| <b>Total Liabilities at Fair Value</b> | <b>\$94.8</b> | \$ | <b>\$43.8</b> | <b>\$51.0</b> | \$96.2 | \$ | \$54.2 | \$42.0 |

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Changes in the fair value of other liabilities, valued using significant unobservable inputs (Level 3), are presented below:

|  |               |
|--|---------------|
| Balance at 30 September 2010   | \$42.0        |
| Expense included in interest expense                                   | 3.4           |
| Currency translation adjustment  | (.5)          |
| Adjustment to initial estimate (see Note 19, Noncontrolling Interests) | 6.1           |
| <b>Balance at 30 September 2011</b>                                    | <b>\$51.0</b> |

**14. DEBT**

The tables below summarize our outstanding debt at 30 September 2011 and 2010:

**Total Debt**

| <b>30 September</b>               | <b>2011</b>      | <b>2010</b>      |
|-----------------------------------|------------------|------------------|
| Short-term borrowings             | \$562.5          | \$286.0          |
| Current portion of long-term debt | 72.2             | 182.5            |
| Long-term debt                    | 3,927.5          | 3,659.8          |
| <b>Total Debt</b>                 | <b>\$4,562.2</b> | <b>\$4,128.3</b> |

**Short-term Borrowings**

| <b>30 September</b>                                    | <b>2011</b>    | <b>2010</b>    |
|--|----------------|----------------|
| Bank obligations                                       | \$562.5        | \$225.1        |
| Short-term borrowings associated with SAGA acquisition |                | 60.9           |
| <b>Total Short-term Borrowings</b>                     | <b>\$562.5</b> | <b>\$286.0</b> |

The weighted average interest rate of short-term borrowings outstanding at 30 September 2011 and 2010 was 2.5% and 3.2%, respectively.

Cash paid for interest, net of amounts capitalized, was \$117.4 in 2011, \$126.9 in 2010, and \$127.6 in 2009.

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| 30 September                                | Maturities   | 2011             | 2010      |
|---|--------------|------------------|-----------|
| <b>Payable in U.S. Dollars</b>              |              |                  |           |
| <b>Debentures</b>                           |              |                  |           |
| 8.75%                                       | 2021         | <b>\$18.4</b>    | \$18.4    |
| <b>Medium-term Notes</b>                    |              |                  |           |
| Weighted average rate                       |              |                  |           |
| Series D 7.3%                               | 2016         | <b>32.1</b>      | 63.1      |
| Series E 7.6%                               | 2026         | <b>17.2</b>      | 17.2      |
| Series G 4.1%                               | 2011         |                  | 125.0     |
| <b>Senior Notes</b>                         |              |                  |           |
| Note 4.15%                                  | 2013         | <b>300.0</b>     | 300.0     |
| Note 2.0%                                   | 2016         | <b>350.0</b>     |           |
| Note 4.375%                                 | 2019         | <b>400.0</b>     | 400.0     |
| <b>Other</b>                                |              |                  |           |
| Weighted average rate                       |              |                  |           |
| Variable-rate industrial revenue bonds 0.1% | 2016 to 2050 | <b>975.1</b>     | 975.1     |
| Other 2.1%                                  | 2012 to 2019 | <b>58.5</b>      | 55.1      |
| <b>Payable in Other Currencies</b>          |              |                  |           |
| Eurobonds 4.25%                             | 2012         | <b>401.6</b>     | 408.1     |
| Eurobonds 3.75%                             | 2014         | <b>401.6</b>     | 408.1     |
| Eurobonds 3.875%                            | 2015         | <b>401.6</b>     | 408.1     |
| Eurobonds 4.625%                            | 2017         | <b>401.6</b>     | 408.1     |
| Other 5.1%                                  | 2012 to 2018 | <b>241.9</b>     | 255.3     |
| <b>Capital Lease Obligations</b>            |              |                  |           |
| United States 5.0%                          | 2012 to 2018 | <b>4.8</b>       | 5.5       |
| Foreign 3.9%                                | 2013 to 2017 | <b>2.7</b>       | 4.3       |
| Less: Unamortized discount                  |              | <b>(7.4)</b>     | (9.1)     |
|   |              | <b>3,999.7</b>   | 3,842.3   |
| Less: Current portion                       |              | <b>(72.2)</b>    | (182.5)   |
| <b>Total Long-term Debt</b>                 |              | <b>\$3,927.5</b> | \$3,659.8 |

Maturities of long-term debt in each of the next five years and beyond are as follows:

|            |                  |
|------------|------------------|
| 2012       | \$473.8          |
| 2013       | 333.9            |
| 2014       | 475.7            |
| 2015       | 479.2            |
| 2016       | 402.0            |
| Thereafter | 1,835.1          |
|            | <b>\$3,999.7</b> |

On 2 August 2011, we issued a \$350.0 senior fixed-rate 2.0% note which matures on 2 August 2016. Additionally, on 3 November 2011 we issued a \$400.0 senior fixed-rate 3.0% note that matures 3 November 2021.

We have obtained the commitment of a number of commercial banks to lend money at market rates whenever needed. At 30 September 2010, our total multicurrency committed credit facility amounted to \$2,000.0. Effective 31 March 2011, we increased our total multicurrency revolving facility maturing in July 2013, by \$170.0, to a total of \$2,170.0. Effective 30 June 2011, this \$2,170.0 facility was amended to extend the maturity date from 8 July 2013 to 30 June 2015, reduce facility fees to reflect current market rates and modify the financial covenant. Our only financial covenant changed from a maximum ratio of total debt to earnings before interest, taxes, depreciation, and amortization (EBITDA) of not greater than 3.0 to a ratio of long-term debt to equity of no greater than 60%. There were no other material changes to the terms and conditions of the arrangement. This credit facility provides a source of liquidity and is used to support the issuance of commercial paper. No borrowings were outstanding under this commitment at 30 September 2011. Additional commitments totaling \$474.2 are maintained by our foreign subsidiaries, of which \$419.1 was borrowed and outstanding at 30 September 2011.



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The 4.25% Eurobond maturing in 2012 is classified as long-term debt because of our ability to refinance the debt under our \$2,170.0 committed credit facility maturing in 2015. Our current intention is to refinance this 4.25% Eurobond on a long-term basis via the U.S. or European public or private placement debt markets.

Various debt agreements to which we are a party also include financial covenants and other restrictions, including restrictions pertaining to the ability to create property liens and enter into certain sale and leaseback transactions. We are in compliance with all of our financial debt covenants.

**15. RETIREMENT BENEFITS**

The Company and certain of its subsidiaries sponsor defined benefit pension plans and defined contribution plans that cover a substantial portion of its worldwide employees. The principal defined benefit pension plans are the U.S. salaried pension plan and the U.K. pension plan. These plans were closed to new participants in 2005 and were replaced with defined contribution plans. The principal defined contribution plan is the Retirement Savings Plan, in which a substantial portion of the U.S. employees participate; a similar plan is offered to U.K. employees. We also provide other postretirement benefits consisting primarily of healthcare benefits to U.S. retirees who meet age and service requirements.

**Defined Benefit Pension Plans**

Pension benefits earned are generally based on years of service and compensation during active employment. The cost of our defined benefit pension plans included the following components:

|                                  | 2011          |               | 2010    |               | 2009    |               |
|----------------------------------|---------------|---------------|---------|---------------|---------|---------------|
|                                  | U.S.          | International | U.S.    | International | U.S.    | International |
| Service cost                     | \$43.6        | \$29.5        | \$42.5  | \$24.2        | \$33.9  | \$26.6        |
| Interest cost                    | 122.8         | 64.2          | 123.4   | 60.2          | 124.0   | 60.9          |
| Expected return on plan assets   | (179.4)       | (68.1)        | (164.3) | (64.3)        | (146.5) | (55.3)        |
| Amortization                     |               |               |         |               |         |               |
| Prior service cost               | 2.6           | .6            | 2.7     | .7            | 2.6     | 1.3           |
| Actuarial loss                   | 63.9          | 30.9          | 46.9    | 19.9          | 6.2     | 10.8          |
| Settlements and curtailments     |               | 1.0           | 10.7    | .8            | 9.7     | 4.8           |
| Special termination benefits     |               | .3            | (.9)    | 4.2           | 7.2     | 22.1          |
| Other                            |               | 2.2           |         | 2.3           |         | 1.7           |
| <b>Net Periodic Pension Cost</b> | <b>\$53.5</b> | <b>\$60.6</b> | \$61.0  | \$48.0        | \$37.1  | \$72.9        |

We calculate net periodic pension cost for a given fiscal year based on assumptions developed at the end of the previous fiscal year. The following table sets forth the weighted average assumptions used in the calculation of net periodic pension cost:

|                                | 2011 |               | 2010 |               | 2009 |               |
|--------------------------------|------|---------------|------|---------------|------|---------------|
|                                | U.S. | International | U.S. | International | U.S. | International |
| Discount rate                  | 5.1% | 4.9%          | 5.7% | 5.5%          | 7.6% | 6.5%          |
| Expected return on plan assets | 8.8% | 6.6%          | 8.8% | 7.3%          | 8.8% | 7.4%          |
| Rate of compensation increase  | 4.0% | 3.8%          | 4.3% | 3.7%          | 4.3% | 4.4%          |

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 participant's retirement date. We recognize pension settlements when payments exceed the sum of the service and interest cost components of net periodic pension cost of the plan for the fiscal year. We recognized \$11.5 and \$10.7 of settlement charges in 2010 and 2009, respectively.

Special termination benefits for fiscal year 2010 included \$2.8 for the global cost reduction plan. Special termination benefits for fiscal year 2009 included \$28.5 for the global cost reduction plan. The global cost reduction charge for fiscal year 2009 also included \$3.8 for curtailment losses related to the U.K. pension plans.



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The projected benefit obligation (PBO) is the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future salary increases. The following table sets forth the weighted average assumptions used in the calculation of the PBO:

|                               | 2011 |               | 2010 |               |
|-------------------------------|------|---------------|------|---------------|
|                               | U.S. | International | U.S. | International |
| Discount rate                 | 4.9% | 5.5%          | 5.1% | 4.9%          |
| Rate of compensation increase | 4.0% | 3.8%          | 4.0% | 3.8%          |

The following table reflects the change in the PBO and the change in the fair value of plan assets based on the plan year measurement date, as well as the amounts recognized in the consolidated balance sheets.

|   | 2011             |                  | 2010             |                  |
|---|------------------|------------------|------------------|------------------|
|   | U.S.             | International    | U.S.             | International    |
| <b>Change in Projected Benefit Obligation</b> |                  |                  |                  |                  |
| Obligation at beginning of year               | \$2,446.2        | \$1,307.4        | \$2,210.5        | \$1,175.5        |
| Service cost                                  | 43.6             | 29.5             | 42.5             | 24.2             |
| Interest cost                                 | 122.8            | 64.2             | 123.4            | 60.2             |
| Amendments                                    | .6               |                  | 1.3              | 1.0              |
| Actuarial loss (gain)                         | 93.3             | (183.6)          | 176.9            | 115.0            |
| Curtailements                                 |                  | (.4)             |                  | (1.2)            |
| Settlements                                   |                  | (5.1)            | (20.0)           |                  |
| Special termination benefits                  |                  | .3               | (.9)             | 4.2              |
| Participant contributions                     |                  | 3.7              |                  | 4.1              |
| Benefits paid                                 | (100.6)          | (43.0)           | (87.5)           | (48.0)           |
| Currency translation/other                    |                  | (13.1)           |                  | (27.6)           |
| <b>Obligation at End of Year</b>              | <b>\$2,605.9</b> | <b>\$1,159.9</b> | <b>\$2,446.2</b> | <b>\$1,307.4</b> |
| <b>Change in Plan Assets</b>                  |                  |                  |                  |                  |
| Fair value at beginning of year               | \$1,727.2        | \$984.4          | \$1,457.7        | \$793.3          |
| Actual return on plan assets                  | 36.4             | (7.0)            | 153.5            | 77.7             |
| Company contributions                         | 181.3            | 59.7             | 227.5            | 179.1            |
| Participant contributions                     |                  | 3.7              |                  | 4.1              |
| Benefits paid                                 | (100.6)          | (43.0)           | (87.5)           | (48.0)           |
| Settlements                                   |                  | (5.1)            | (24.0)           |                  |
| Currency translation/other                    |                  | (13.3)           |                  | (21.8)           |
| <b>Fair Value at End of Year</b>              | <b>\$1,844.3</b> | <b>\$979.4</b>   | <b>\$1,727.2</b> | <b>\$984.4</b>   |
| <b>Funded Status at End of Year</b>           | <b>\$(761.6)</b> | <b>\$(180.5)</b> | <b>\$(719.0)</b> | <b>\$(323.0)</b> |

**Amounts Recognized**

|                              |                  |                  |                  |                  |
|------------------------------|------------------|------------------|------------------|------------------|
| Noncurrent assets            | \$               | \$6.5            | \$               | \$               |
| Accrued liabilities          | (10.3)           | (23.5)           | (178.2)          | (60.6)           |
| Noncurrent liabilities       | (751.3)          | (163.5)          | (540.8)          | (262.4)          |
| <b>Net Amount Recognized</b> | <b>\$(761.6)</b> | <b>\$(180.5)</b> | <b>\$(719.0)</b> | <b>\$(323.0)</b> |

The changes in plan assets and benefit obligation that have been recognized in other comprehensive income on a pretax basis during 2011 and 2010 consist of the following:

|  | 2011 |               | 2010 |               |
|--|------|---------------|------|---------------|
|  | U.S. | International | U.S. | International |

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|   |                |                  |         |         |
|---|----------------|------------------|---------|---------|
| Net actuarial loss (gain) arising during the period | <b>\$236.5</b> | <b>\$(108.8)</b> | \$191.6 | \$103.2 |
| Amortization of net actuarial loss                  | <b>(63.9)</b>  | <b>(31.9)</b>    | (57.6)  | (20.7)  |
| Prior service cost arising during the period        | <b>.6</b>      |                  | 1.3     | 1.0     |
| Amortization of prior service cost                  | <b>(2.6)</b>   | <b>(.6)</b>      | (2.7)   | (.7)    |
| <b>Total</b>  | <b>\$170.6</b> | <b>\$(141.3)</b> | \$132.6 | \$82.8  |

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The net actuarial loss (gain) represents the actual changes in the estimated obligation and plan assets that have not yet been recognized in the consolidated income statement and are included in accumulated other comprehensive loss. Actuarial losses arising during 2011 for the domestic plans are primarily attributable to lower discount rates and actual asset returns below expected returns. Actuarial gains arising during 2011 for the international plans are the result of higher discount rates, partially offset by lower than expected actual returns on plan assets. Actuarial gains and losses are not recognized immediately, but instead are accumulated as a part of the unrecognized net loss balance and amortized into net periodic pension cost. Asset gains and losses are primarily amortized on a straight-line basis over a five-year period. Liability gains and losses are amortized over the average remaining service period of participating employees as certain thresholds are met.

The components recognized in accumulated other comprehensive loss on a pretax basis at 30 September consisted of:

|                          | 2011             |                | 2010             |                |
|--------------------------|------------------|----------------|------------------|----------------|
|                          | U.S.             | International  | U.S.             | International  |
| Net actuarial loss       | \$1,283.5        | \$392.7        | \$1,110.9        | \$533.4        |
| Prior service cost       | 14.9             | 6.5            | 16.9             | 7.1            |
| Net transition liability |                  | .4             |                  | .4             |
| <b>Total</b>             | <b>\$1,298.4</b> | <b>\$399.6</b> | <b>\$1,127.8</b> | <b>\$540.9</b> |

The amount of accumulated other comprehensive loss at 30 September 2011 that is expected to be recognized as a component of net periodic pension cost during fiscal year 2012 is as follows:

|                    | U.S.   | International |
|--------------------|--------|---------------|
| Net actuarial loss | \$76.0 | \$15.2        |
| Prior service cost | 2.5    | .4            |

Our pension plan investment strategy is to invest in diversified portfolios to earn a long-term return consistent with acceptable risk in order to pay retirement benefits and meet regulatory funding requirements while minimizing company cash contributions over time. The plans invest primarily in passive and actively managed equity and debt securities. Equity investments are diversified geographically and by investment style and market capitalization. Company stock is not permitted as a plan asset except as a component of index funds. Fixed income investments include sovereign, corporate and asset-backed securities generally denominated in the currency of the plan.

Asset allocation targets are established based on the long-term return, volatility and correlation characteristics of the asset classes, the profiles of the plans' liabilities, and acceptable levels of risk. Actual allocations vary from target due to market changes and are reviewed regularly. Assets are rebalanced through contributions and benefit payments as deemed appropriate. The actual and target allocations at the measurement date are as follows:

| Asset Category    | 2011 Target Allocation |               | 2011 Actual Allocation |               | 2010 Actual Allocation |               |             |             |
|-------------------|------------------------|---------------|------------------------|---------------|------------------------|---------------|-------------|-------------|
|                   | U.S.                   | International | U.S.                   | International | U.S.                   | International |             |             |
| Equity securities | 60                     | 80%           | 53                     | 62%           | 66%                    | 53%           | 70%         | 55%         |
| Debt securities   | 20                     | 30%           | 35                     | 45%           | 28%                    | 43%           | 25%         | 38%         |
| Real estate/other | 0                      | 10%           | 1                      | 3%            | 5%                     | 2%            | 4%          | 2%          |
| Cash              |                        |               |                        |               | 1%                     | 2%            | 1%          | 5%          |
| <b>Total</b>      |                        |               |                        |               | <b>100%</b>            | <b>100%</b>   | <b>100%</b> | <b>100%</b> |

The expected return on plan assets assumption is based on a weighted average of estimated long-term returns of major asset classes and the historical performance of plan assets. In determining asset class returns, we take into account historical long-term returns and the value of active management, as well as the interest rate environment.

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The following table summarizes pension plan assets measured at fair value by asset class (see Note 13, Fair Value Measurements, for definition of the levels):

|   | 30 September 2011 |                |                  |                | 30 September 2010 |                |                |               |
|---|-------------------|----------------|------------------|----------------|-------------------|----------------|----------------|---------------|
|   | Total             | Level 1        | Level 2          | Level 3        | Total             | Level 1        | Level 2        | Level 3       |
| <b>U.S. Qualified Pension Plans</b>       |                   |                |                  |                |                   |                |                |               |
| Cash and cash equivalents                 | \$9.2             | \$9.2          | \$               | \$             | \$8.3             | \$8.3          | \$             | \$            |
| Equity securities                         | 537.2             | 537.2          |                  |                | 551.1             | 551.1          |                |               |
| Equity mutual funds                       | 138.3             | 138.3          |                  |                | 87.4              | 87.4           |                |               |
| Equity pooled funds                       | 543.9             |                | 543.9            |                | 573.1             |                | 573.1          |               |
| Fixed income:                             |                   |                |                  |                |                   |                |                |               |
| Bonds (government and corporate)          | 18.7              |                | 18.7             |                | 17.8              |                | 17.8           |               |
| Mortgage and asset-backed securities      | 23.5              |                | 23.5             |                | 31.7              |                | 31.7           |               |
| Mutual funds                              | 37.8              | 37.8           |                  |                | 50.6              | 50.6           |                |               |
| Pooled funds                              | 434.4             |                | 434.4            |                | 330.2             |                | 330.2          |               |
| Real estate pooled funds                  | 101.3             |                |                  | 101.3          | 77.0              |                |                | 77.0          |
| <b>Total U.S. Qualified Pension Plans</b> | <b>\$1,844.3</b>  | <b>\$722.5</b> | <b>\$1,020.5</b> | <b>\$101.3</b> | <b>\$1,727.2</b>  | <b>\$697.4</b> | <b>\$952.8</b> | <b>\$77.0</b> |
| <b>International Pension Plans</b>        |                   |                |                  |                |                   |                |                |               |
| Cash and cash equivalents                 | \$18.0            | \$18.0         | \$               | \$             | \$46.5            | \$46.5         | \$             | \$            |
| Equity pooled funds                       | 524.0             |                | 524.0            |                | 538.3             |                | 538.3          |               |
| Fixed income pooled funds                 | 340.8             |                | 340.8            |                | 297.6             |                | 297.6          |               |
| Other pooled funds                        | 25.0              |                | 8.3              | 16.7           | 25.9              |                | 8.0            | 17.9          |
| Insurance contracts                       | 71.6              |                |                  | 71.6           | 76.1              |                |                | 76.1          |
| <b>Total International Pension Plans</b>  | <b>\$979.4</b>    | <b>\$18.0</b>  | <b>\$873.1</b>   | <b>\$88.3</b>  | <b>\$984.4</b>    | <b>\$46.5</b>  | <b>\$843.9</b> | <b>\$94.0</b> |

The following table summarizes changes in fair value of the pension plan assets classified as Level 3, by asset class:

|  | Real Estate Pooled Funds | Other Pooled Funds | Insurance Contracts | Total          |
|--|--------------------------|--------------------|---------------------|----------------|
| <b>30 September 2009</b>               | \$72.7                   | \$13.0             | \$66.7              | \$152.4        |
| Actual return on plan assets:          |                          |                    |                     |                |
| Assets held at end of year             | 4.3                      | .5                 | 5.1                 | 9.9            |
| Assets sold during the period          |                          | .2                 |                     | .2             |
| Purchases, sales, and settlements, net |                          | 4.2                | 4.3                 | 8.5            |
| <b>30 September 2010</b>               | \$77.0                   | \$17.9             | \$76.1              | \$171.0        |
| Actual return on plan assets:          |                          |                    |                     |                |
| Assets held at end of year             | 15.3                     | (.5)               | .3                  | 15.1           |
| Assets sold during the period          |                          | .4                 |                     | .4             |
| Purchases, sales, and settlements, net | 9.0                      | (1.1)              | (4.8)               | 3.1            |
| <b>30 September 2011</b>               | <b>\$101.3</b>           | <b>\$16.7</b>      | <b>\$71.6</b>       | <b>\$189.6</b> |

The descriptions and fair value methodologies for the U.S. and International pension plan assets are as follows:

**Cash and Cash Equivalents**

The carrying amounts of cash and cash equivalents approximate fair value due to the short-term maturity.

**Equity Securities**

Equity securities are valued at the closing market price reported on a U.S. exchange where the security is actively traded and are therefore classified as Level 1 assets.

**Mutual Funds**

Shares of mutual funds are valued at their published closing net asset value (NAV) and are classified as Level 1 assets.

**Pooled Funds**

Securities are valued at the NAV of the shares held at year end, which is based on the fair value of the underlying investments, and are classified as Level 2 assets.

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**Corporate and Government Bonds**

Corporate and government bonds are classified as Level 2 assets, as they are either valued at quoted market prices from observable pricing sources at the reporting date or valued based upon comparable securities with similar yields and credit ratings.

**Mortgage and Asset-Backed Securities**

Securities are classified as Level 2 assets, as they are either valued at quoted market prices from observable pricing sources at the reporting date or valued based upon comparable securities with similar yields, credit ratings, and purpose of the underlying loan.

**Real Estate Pooled Funds**

Funds are classified as Level 3 assets, as they are carried at the estimated fair value of the underlying properties. Estimated fair value is calculated utilizing a combination of key inputs such as revenue and expense growth rates, terminal capitalization rates, and discount rates. These key inputs are consistent with practices prevailing within the real estate investment management industry.

**Other Pooled Funds**

Securities classified as Level 2 assets are valued at the NAV of the shares held at year end, which is based on the fair value of the underlying investments. Securities and interests classified as Level 3 are carried at the estimated fair value of the underlying investments. The underlying investments are valued based on bids from brokers or other third-party vendor sources that utilize expected cash flow streams and other uncorroborated data, including counterparty credit quality, default risk, discount rates and the overall capital market liquidity.

**Insurance Contracts**

Insurance contracts are classified as Level 3 assets, as they are carried at contract value, which approximates the estimated fair value. The estimated fair value is based on the fair value of the underlying investment of the insurance company.

We anticipate contributing approximately \$40 to \$60 to the defined benefit pension plans in 2012.

Projected benefit payments, which reflect expected future service, are as follows:

|             | U.S.    | International |
|-------------|---------|---------------|
| 2012        | \$104.5 | \$42.1        |
| 2013        | 111.1   | 45.2          |
| 2014        | 117.2   | 47.0          |
| 2015        | 124.4   | 49.6          |
| 2016        | 132.2   | 50.1          |
| 2017 - 2021 | 790.3   | 282.3         |

These estimated benefit payments are based on assumptions about future events. Actual benefit payments may vary significantly from these estimates.

The accumulated benefit obligation (ABO) is the actuarial present value of benefits attributed to employee service rendered to a particular date, based on current salaries. The ABO for all defined benefit pension plans was \$3,379.5 and \$3,327.6 at the end of 2011 and 2010, respectively.

The following table provides information on pension plans where the benefit liability exceeds the value of plan assets:

| 30 September 2011 |               | 30 September 2010 |               |
|-------------------|---------------|-------------------|---------------|
| U.S.              | International | U.S.              | International |

| <b>Pension Plans with PBO in Excess of Plan Assets:</b> |                  |                  |           |           |
|---|------------------|------------------|-----------|-----------|
| PBO   | <b>\$2,605.9</b> | <b>\$1,015.9</b> | \$2,446.2 | \$1,294.8 |
| Fair value of plan assets                               | <b>1,844.3</b>   | <b>828.9</b>     | 1,727.2   | 971.2     |
| <b>Pension Plans with ABO in Excess of Plan Assets:</b> |                  |                  |           |           |
| ABO   | <b>\$2,316.5</b> | <b>\$923.2</b>   | \$2,121.5 | \$1,170.4 |
| Fair value of plan assets                               | <b>1,844.3</b>   | <b>816.9</b>     | 1,727.2   | 944.5     |

Included in the tables above are several pension arrangements that are not funded because of jurisdictional practice. The ABO and PBO related to these plans for 2011 were \$136.4 and \$161.7, respectively.

**Table of Contents****Defined Contribution Plans**

We maintain a nonleveraged employee stock ownership plan (ESOP) which forms part of the Air Products and Chemicals, Inc. Retirement Savings Plan (RSP). The ESOP was established in May of 2002. The balance of the RSP is a qualified defined contribution plan including a 401(k) elective deferral component. A substantial portion of U.S. employees are eligible and participate.

We treat dividends paid on ESOP shares as ordinary dividends. Under existing tax law, we may deduct dividends which are paid with respect to shares held by the plan. Shares of the Company's common stock in the ESOP totaled 4,935,196 as of 30 September 2011.

We match a portion of the participants' contributions to the RSP and other various worldwide defined contribution plans. Our contributions to the RSP include a Company core contribution for certain eligible employees who do not receive their primary retirement benefit from the defined benefit pension plans, with the core contribution based on a percentage of pay that is dependent on years of service. For the RSP, we also make matching contributions on overall employee contributions as a percentage of the employee contribution and include an enhanced contribution for certain eligible employees that do not participate in the defined benefit pension plans. Worldwide contributions expensed to income in 2011, 2010, and 2009 were \$31.3, \$30.8, and \$30.6, respectively.

**Other Postretirement Benefits**

We provide other postretirement benefits consisting primarily of healthcare benefits to certain U.S. retirees who meet age and service requirements. The healthcare benefit is a continued medical benefit until the retiree reaches age 65. Healthcare benefits are contributory, with contribution percentages adjusted periodically. The retiree medical costs are capped at a specified dollar amount, with the retiree contributing the remainder.

The cost of our other postretirement benefit plans included the following components:

|   | 2011          | 2010          | 2009         |
|---|---------------|---------------|--------------|
| Service cost                            | \$5.7         | \$4.7         | \$4.0        |
| Interest cost                           | 3.3           | 4.6           | 6.5          |
| Amortization                            |               |               |              |
| Prior service credit                    |               | (.1)          | (1.4)        |
| Actuarial loss                          | 3.8           | 2.9           | .1           |
| <b>Net Periodic Postretirement Cost</b> | <b>\$12.8</b> | <b>\$12.1</b> | <b>\$9.2</b> |

We calculate net periodic postretirement cost for a given fiscal year based on assumptions developed at the end of the previous fiscal year. The discount rate assumption used in the calculation of net periodic postretirement cost for 2011, 2010, and 2009 was 2.8%, 4.2%, and 7.4%, respectively.

We measure the other postretirement benefits as of 30 September. The discount rate assumption used in the calculation of the accumulated postretirement benefit obligation was 3.7% and 2.8% for 2011 and 2010, respectively.

The following table reflects the change in the accumulated postretirement benefit obligation and the amounts recognized in the consolidated balance sheets:

|                                  | 2011           | 2010           |
|----------------------------------|----------------|----------------|
| Obligation at beginning of year  | \$120.9        | \$116.0        |
| Service cost                     | 5.7            | 4.7            |
| Interest cost                    | 3.3            | 4.6            |
| Actuarial (gain) loss            | (2.5)          | 7.8            |
| Benefits paid                    | (13.6)         | (12.2)         |
| <b>Obligation at End of Year</b> | <b>\$113.8</b> | <b>\$120.9</b> |
| <b>Amounts Recognized</b>        |                |                |

|                        |               |        |
|------------------------|---------------|--------|
| Accrued liabilities    | <b>\$12.8</b> | \$13.7 |
| Noncurrent liabilities | <b>101.0</b>  | 107.2  |

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The changes in benefit obligation that have been recognized in other comprehensive income on a pretax basis during 2011 and 2010 for our other postretirement benefit plans consist of the following:

|   | 2011           | 2010         |
|---|----------------|--------------|
| Net actuarial (gain) loss arising during the period | \$(2.5)        | \$7.8        |
| Amortization of net actuarial loss                  | (3.8)          | (2.9)        |
| Amortization of prior service credit                |                | .1           |
| <b>Total</b>  | <b>\$(6.3)</b> | <b>\$5.0</b> |

The net actuarial loss recognized in accumulated other comprehensive loss on a pretax basis was \$29.2 at 30 September 2011 and \$35.5 at 30 September 2010. Of the 30 September 2011 actuarial loss, it is estimated that \$2.7 will be amortized into net periodic postretirement cost over fiscal year 2012.

The assumed healthcare trend rates are as follows:

|   | 2011 | 2010 |
|---|------|------|
| Healthcare trend rate                   | 8.0% | 8.0% |
| Ultimate trend rate                     | 5.0% | 5.0% |
| Year the ultimate trend rate is reached | 2015 | 2014 |

The effect of a change in the healthcare trend rate is slightly tempered by a cap on the average retiree medical cost. The impact of a one percentage point change in the assumed healthcare cost trend rate on net periodic postretirement cost and the obligation is not material.

Projected benefit payments are as follows:

|             |        |
|-------------|--------|
| 2012        | \$13.0 |
| 2013        | 12.8   |
| 2014        | 12.7   |
| 2015        | 12.6   |
| 2016        | 12.7   |
| 2017 - 2021 | 56.9   |

These estimated benefit payments are based on assumptions about future events. Actual benefit payments may vary significantly from these estimates.

**16. COMMITMENTS AND CONTINGENCIES****Litigation**

We are involved in various legal proceedings, including competition, environmental, health, safety, product liability, and insurance matters. 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 \$95 at 30 September 2011) 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 our total revenue in Brazil in 2003.

We have denied the allegations made by the authorities and filed an appeal in October 2010 with the Brazilian courts. Certain of our defenses, if successful, could result in the matter being dismissed with no fine against us. We, with advice of our outside legal counsel, have assessed the status of this matter and have 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. We estimate the maximum possible loss to be the full amount of the fine of R\$179.2 million (approximately \$95 at 30 September 2011) plus interest accrued thereon until final disposition of the proceedings.

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We are required to provide security for the payment of the fine (and interest) in order to suspend execution of the judgment during the appeal process, during which time interest will accrue on the fine. The security is only collectible by the court in the event we are not successful in our appeal and do not timely pay the fine. The security could be in the form of a bank guarantee or in other forms which the courts deem acceptable. The form of security to be provided by us has not been finally determined.

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While we do not expect that any sums we may have to pay in connection with this or any other legal proceeding would have a materially 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.

**Environmental**

In the normal course of business, we are involved in legal proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act (the federal Superfund law), similar state environmental laws, and the Resource Conservation and Recovery Act (RCRA) relating to the designation of certain sites for investigation or remediation. Presently, there are approximately 35 sites on which a final settlement has not been reached where we, along with others, have been designated a potentially responsible party by the Environmental Protection Agency or are otherwise engaged in investigation or remediation, including cleanup activity at certain of our current and former manufacturing sites. We continually monitor these sites for which we have environmental exposure.

Accruals for environmental loss contingencies are recorded when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated consistent with the policy set forth in Note 1, Major Accounting Policies. The consolidated balance sheets at 30 September 2011 and 2010 included an accrual of \$82.3 and \$87.0, respectively, primarily as part of other noncurrent liabilities. The environmental liabilities will be paid over a period of up to 30 years. We estimate the exposure for environmental loss contingencies to range from \$82 to a reasonably possible upper exposure of \$96 as of 30 September 2011.

Actual costs to be incurred at identified sites in future periods may vary from the estimates, given inherent uncertainties in evaluating environmental exposures. Using reasonably possible alternative assumptions of the exposure level could result in an increase to the environmental accrual. Due to the inherent uncertainties related to environmental exposures, a significant increase to the reasonably possible upper exposure level could occur if a new site is designated, the scope of remediation is increased, a different remediation alternative is identified, or a significant increase in our proportionate share occurs. We do not expect that any sum we may have to pay in connection with environmental matters in excess of the amounts recorded or disclosed above would have a material adverse impact on our financial position or results of operations in any one year.

**PACE**

At 30 September 2011, \$35.2 of the environmental accrual was related to the Pace facility.

In 2006, we sold our Amines business, which included operations at Pace, Florida and recognized a liability for retained environmental obligations associated with remediation activities at Pace. We are required by the Florida Department of Environmental Protection (FDEP) and the United States Environmental Protection Agency (USEPA) to continue our remediation efforts. We estimated that it would take about 20 years to complete the groundwater remediation, and the costs through completion were estimated to range from \$42 to \$52. As no amount within the range was a better estimate than another, we recognized a pretax expense in fiscal 2006 of \$42.0 as a component of income from discontinued operations and recorded an environmental accrual of \$42.0 in continuing operations on the consolidated balance sheets. There has been no change to the estimated exposure range related to the Pace facility.

We have implemented many of the remedial corrective measures at the Pace, Florida facility required under 1995 Consent Orders issued by the FDEP and the USEPA. Contaminated soils have been bioremediated, and the treated soils have been secured in a lined on-site disposal cell. Several groundwater recovery systems have been installed to contain and remove contamination from groundwater. We completed an extensive assessment of the site to determine how well existing measures are working, what additional corrective measures may be needed, and whether newer remediation technologies that were not available in the 1990s might be suitable to more quickly and effectively remove groundwater contaminants. Based on assessment results, we completed a focused feasibility study that appears to have identified new and alternative approaches which should more effectively remove contaminants and achieve the targeted remediation goals. We continue to review the new approaches with the FDEP.

**PIEDMONT**

At 30 September 2011, \$21.0 of the environmental accrual was related to the Piedmont site.

On 30 June 2008, we sold our Elkton, Maryland and Piedmont, South Carolina production facilities and the related North American atmospheric emulsions and global pressure sensitive adhesives businesses. In connection with the sale, we recognized a liability for retained environmental obligations associated with remediation activities at the Piedmont site. This site is under active remediation for contamination caused by an insolvent prior owner. The sale of the site triggered expense recognition. Prior to the sale, remediation costs had been capitalized since they

improved

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the property as compared to its condition when originally acquired. We are required by the South Carolina Department of Health and Environmental Control to address both contaminated soil and groundwater. Numerous areas of soil contamination have been addressed, and contaminated groundwater is being recovered and treated. We estimated that it would take until 2015 to complete source area remediation and another 15 years thereafter to complete groundwater recovery, with costs through completion estimated to be \$24.0. We recognized a pretax expense in 2008 of \$24.0 as a component of income from discontinued operations and recorded an environmental liability of \$24.0 in continuing operations on the consolidated balance sheets. There has been no change to the estimated exposure.

### **PAULSBORO**

At 30 September 2011, \$8.0 of the environmental accrual was related to the Paulsboro site.

During the first quarter of 2009, management committed to a plan to sell the production facility in Paulsboro, New Jersey and recognized a \$16.0 environmental liability associated with this site. The change in the liability balance since it was established is a result of spending and changes in the estimated exposure. In December 2009, we completed the sale of this facility. We are required by the New Jersey state law to investigate and, if contaminated, remediate a site upon its sale. We estimate that it will take several years to complete the investigation/remediation efforts at this site.

### **Guarantees and Warranties**

We are a party to certain guarantee agreements, including debt guarantees of equity affiliates and equity support agreements. These guarantees are contingent commitments that are related to activities of our primary businesses.

We have guaranteed repayment of some additional borrowings of certain unconsolidated equity affiliates. At 30 September 2011, these guarantees have terms in the range of two to seven years, with maximum potential payments of \$22.7.

We have entered into an equity support agreement and operations guarantee related to an air separation facility constructed in Trinidad for a venture in which we own 50%. At 30 September 2011, maximum potential payments under joint and several guarantees were \$61.0. Exposures under the guarantee decline over time and are completely extinguished by 2024.

To date, no equity contributions or payments have been required since the inception of these guarantees. The fair value of the above guarantees is not material.

We, in the normal course of business operations, have issued product warranties in our Equipment business. Also, contracts often contain standard terms and conditions which typically include a warranty and indemnification to the buyer that the goods and services purchased do not infringe on third-party intellectual property rights. The provision for estimated future costs relating to warranties is not material to the consolidated financial statements.

We do not expect that any sum we may have to pay in connection with guarantees and warranties will have a materially adverse effect on our consolidated financial condition, liquidity, or results of operations.

### **Put Option Agreements**

We enter into put option agreements with certain affiliated companies as discussed below. We account for the put options as contingent liabilities to purchase an asset. Since the inception of these agreements and through 30 September 2011, we determined that we were not certain that these options would be exercised by the other shareholders.

In 2002, we entered into a put option agreement as part of the purchase of an additional interest in San Fu Gas Company, Ltd., renamed Air Products San Fu Company, Ltd. (San Fu), an industrial gas company in Taiwan. Currently, we have an ownership interest of 74% in San Fu. Put options were issued which give other shareholders the right to sell San Fu stock to us at market price when exercised. The options are effective through January 2015 and allow for the sale of all stock owned by other shareholders to us. The estimated U.S. dollar price of purchasing the stock owned by other shareholders based on the exchange rate at 30 September 2011 would be approximately \$270.

**Table of Contents****Purchase Obligations**

We are obligated to make future payments under unconditional purchase obligations as summarized below:

|              |                |
|--------------|----------------|
| 2012         | \$649          |
| 2013         | 121            |
| 2014         | 119            |
| 2015         | 117            |
| 2016         | 122            |
| Thereafter   | 547            |
| <b>Total</b> | <b>\$1,675</b> |

Most of our long-term unconditional purchase obligations relate to feedstock supply for numerous HyCO (hydrogen, carbon monoxide, and syngas) facilities. The price of feedstock supply is principally related to the price of natural gas. However, long-term take-or-pay sales contracts to HyCO customers are generally matched to the term of the feedstock supply obligations and provide recovery of price increases in the feedstock supply. Due to the matching of most long-term feedstock supply obligations to customer sales contracts, we do not believe these purchase obligations would have a material effect on our financial condition or results of operations.

The unconditional purchase obligations also include other product supply and purchase commitments and electric power and natural gas supply purchase obligations, which are primarily pass-through contracts with our customers. We also have one supply agreement that is not matched to a customer sales contract that has terms extending to ten years and the related commitment is at prices that are not in excess of current market prices. In addition, purchase commitments to spend approximately \$510 for additional plant and equipment are included in the unconditional purchase obligations in 2012.

**Agreement to Purchase Shares in Equity Affiliate**

In September 2011, we entered into an agreement to acquire 25% of the outstanding shares of Abdullah Hashim Industrial Gases & Equipment Co. Ltd. (AHG). The transaction is subject to regulatory approval and customary local closing conditions. The closing date is expected to be in early 2012. AHG is a company of the privately-owned Abdullah Hashim Group, based in the Kingdom of Saudi Arabia. AHG is the largest private industrial gases company in Saudi Arabia. It is comprised of three businesses, including industrial gases, equipment and consumables and refrigerants. The transaction will be recorded as an investment in net assets of and advances to equity affiliates in the Merchant Gases segment with the purchase price included in capital expenditures in the period it closes.

**17. CAPITAL STOCK**

Authorized capital stock consists of 25 million preferred shares with a par value of \$1 per share, none of which was outstanding at 30 September 2011, and 300 million shares of common stock with a par value of \$1 per share.

In 2007, the Board of Directors authorized the repurchase of up to \$1,000 of our outstanding common stock. 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 2011, we purchased 7.4 million of our outstanding shares at a cost of \$649.2, which completed our 2007 \$1,000 share repurchase program.

On 15 September 2011, the Board of Directors authorized a new \$1,000 share repurchase program. At 30 September 2011, \$1,000 in share repurchase authorization remains.

The following table reflects the changes in common shares:

| Year ended 30 September                    | 2011        | 2010        | 2009        |
|--|-------------|-------------|-------------|
| <b>Number of Common Shares Outstanding</b> |             |             |             |
| Balance, beginning of year                 | 213,802,865 | 211,260,264 | 209,334,627 |
| Purchase of treasury shares                | (7,433,612) |             |             |

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|  |                    |             |             |
|--|--------------------|-------------|-------------|
| Issuance of treasury shares for stock option and award plans | <b>3,816,003</b>   | 2,542,601   | 1,925,637   |
| Balance, end of year   | <b>210,185,256</b> | 213,802,865 | 211,260,264 |

**Table of Contents****18. SHARE-BASED COMPENSATION**

We have various share-based compensation programs, which include stock options, deferred stock units, and restricted stock. Under all programs, the terms of the awards are fixed at the grant date. We issue shares from treasury stock upon the exercise of stock options, the payout of deferred stock units, and the issuance of restricted stock awards. As of 30 September 2011, there were 5,150,869 shares available for future grant under our Long-Term Incentive Plan, which is shareholder approved.

Share-based compensation cost recognized in the consolidated income statement is summarized below:

|   | 2011          | 2010          | 2009          |
|---|---------------|---------------|---------------|
| Cost of sales                                   | \$3.8         | \$4.0         | \$7.9         |
| Selling and administrative                      | 39.5          | 42.5          | 46.9          |
| Research and development                        | 1.5           | 2.1           | 4.1           |
| Global cost reduction plan                      |               |               | 1.5           |
| <b>Before-Tax Share-Based Compensation Cost</b> | <b>44.8</b>   | <b>48.6</b>   | <b>60.4</b>   |
| Income tax benefit                              | (17.1)        | (18.3)        | (23.3)        |
| <b>After-Tax Share-Based Compensation Cost</b>  | <b>\$27.7</b> | <b>\$30.3</b> | <b>\$37.1</b> |

The amount of share-based compensation cost capitalized in 2011, 2010, and 2009 was not material.

Total before-tax share-based compensation cost by type of program was as follows:

|   | 2011          | 2010          | 2009          |
|---|---------------|---------------|---------------|
| Stock options                                   | \$21.4        | \$25.0        | \$38.3        |
| Deferred stock units                            | 20.8          | 21.5          | 19.2          |
| Restricted stock                                | 2.6           | 2.1           | 2.9           |
| <b>Before-Tax Share-Based Compensation Cost</b> | <b>\$44.8</b> | <b>\$48.6</b> | <b>\$60.4</b> |

**Stock Options**

We have granted awards of options to purchase common stock to executives, selected employees, and outside directors. The exercise price of stock options equals the market price of our stock on the date of the grant. Options generally vest incrementally over three years, and remain exercisable for ten years from the date of grant. Options have not been issued to directors since 2005.

Fair values of stock options granted prior to 1 October 2010 were estimated using a lattice-based valuation model. Beginning in fiscal 2011, we used the Black Scholes model to value stock option awards. The Black Scholes model is a widely used valuation technique that incorporates all the measurement objectives required by the share-based compensation accounting guidance. Additionally, the Black Scholes model incorporates assumptions that reflect all substantive characteristics of our program. We believe the Black Scholes model improves comparability and efficiency. The impact of the change in valuation models was not significant to the consolidated financial statements. Fair value was determined using the assumptions noted in the table below. Expected volatility and expected dividend yield for fiscal year 2011 valuations using the Black Scholes model are based on actual historical experience of our stock and dividends over the historical period equal to the expected life. Expected volatility and expected dividend yield for fiscal year 2010 and 2009 valuations using the lattice-based valuation model were based on actual historical experience of our stock and dividends over the historical period equal to the option term. The expected life represents the period of time that options granted are expected to be outstanding based on an analysis of Company-specific historical exercise data. The range given below results from certain groups of employees exhibiting different behavior. Groups of employees that have similar historical exercise behavior were considered separately for valuation purposes. The risk-free rate is based on the U.S. Treasury Strips with terms equal to the expected time of exercise as of the grant date.

|                     | 2011        | 2010  | 2009  |
|---------------------|-------------|-------|-------|
| Expected volatility | 29.2% 30.0% | 32.6% | 31.2% |

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|                          |             |             |      |      |           |
|--------------------------|-------------|-------------|------|------|-----------|
| Expected dividend yield  | <b>2.2%</b> |             | 2.1% |      | 2.1%      |
| Expected life (in years) | <b>7.0</b>  | <b>8.7</b>  | 6.8  | 8.0  | 6.8 8.0   |
| Risk-free interest rate  | <b>2.4%</b> | <b>2.9%</b> | 2.9% | 3.3% | 3.5% 3.9% |

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The weighted average grant-date fair value of options granted during 2011, 2010, and 2009 was \$23.83, \$25.94, \$20.86, per option, respectively.

A summary of stock option activity is presented below:

|   |               | Weighted Average |
|---|---------------|------------------|
| <b>Stock Options</b>                    | Shares (000)  | Exercise Price   |
| Outstanding at 30 September 2010        | 16,435        | \$56.56          |
| Granted                                 | 932           | 86.39            |
| Exercised                               | (3,753)       | 42.13            |
| Forfeited                               | (44)          | 72.46            |
| <b>Outstanding at 30 September 2011</b> | <b>13,570</b> | <b>\$62.55</b>   |
| <b>Exercisable at 30 September 2011</b> | <b>11,375</b> | <b>\$59.19</b>   |

|   | Weighted Average<br>Remaining Contractual<br>Terms (in years) | Aggregate Intrinsic<br>Value |
|---|---|------------------------------|
| <b>Stock Options</b>                    |   |                              |
| <b>Outstanding at 30 September 2011</b> | <b>4.5</b>  | <b>\$230</b>                 |
| <b>Exercisable at 30 September 2011</b> | <b>3.7</b>  | <b>\$224</b>                 |

The aggregate intrinsic value represents the amount by which our closing stock price of \$76.37 as of 30 September 2011 exceeds the exercise price multiplied by the number of in-the-money options outstanding or exercisable as of that date.

The total intrinsic value of stock options exercised during 2011, 2010, and 2009 was \$180.8, \$92.4, and \$62.1, respectively.

Compensation cost is generally recognized over the stated vesting period consistent with the terms of the arrangement (i.e., either on a straight-line or graded-vesting basis). Expense recognition is accelerated for retirement-eligible individuals who would meet the requirements for vesting of awards upon their retirement. As of 30 September 2011, there was \$10.3 of unrecognized compensation cost related to nonvested stock options, which is expected to be recognized over a weighted average period of 1.9 years.

Cash received from option exercises during 2011 was \$148.2. The total tax benefit realized from stock option exercises in 2011 was \$62.7, of which \$45.8 was the excess tax benefit.

**Deferred Stock Units and Restricted Stock**

The grant-date fair value of deferred stock units and restricted stock is estimated on the date of grant based on the market price of the stock, and compensation cost is generally amortized to expense on a straight-line basis over the vesting period during which employees perform related services. Expense recognition is accelerated for retirement-eligible individuals who would meet the requirements for vesting of awards upon their retirement.

**Deferred Stock Units**

We have granted deferred stock units to executives, selected employees, and outside directors. These deferred stock units entitle the recipient to one share of common stock upon vesting, which is conditioned on continued employment during the deferral period and may also be conditioned on achieving certain performance targets. The deferral period for some units ends after death, disability, or retirement. The deferral period for other performance-based deferred stock units ends at the end of the performance period (one to three years). Additionally, we have granted deferred stock units, subject to a three-, four-, or five-year deferral period, to selected employees. Deferred stock units issued to directors are paid after service on the Board of Directors ends at the time elected by the director (not to exceed 10 years after service ends).

|                             |              | Weighted Average      |
|-----------------------------|--------------|-----------------------|
| <b>Deferred Stock Units</b> | Shares (000) | Grant-Date Fair Value |

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|   |              |                |
|---|--------------|----------------|
| Outstanding at 30 September 2010        | 1,527        | \$64.67        |
| Granted                                 | 299          | 86.42          |
| Paid out                                | (306)        | 68.00          |
| Forfeited/adjustments                   | (15)         | 86.92          |
| <b>Outstanding at 30 September 2011</b> | <b>1,505</b> | <b>\$68.10</b> |

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Cash payments made for deferred stock units were \$1.0, \$1.4, and \$5.2 in 2011, 2010, and 2009, respectively. As of 30 September 2011, there was \$29.5 of unrecognized compensation cost related to deferred stock units. The cost is expected to be recognized over a weighted average period of 2.5 years. The total fair value of deferred stock units paid out during 2011, 2010, and 2009, including shares vested in prior periods, was \$26.3, \$26.2, and \$22.1, respectively.

**Restricted Stock**

We have issued shares of restricted stock to certain officers. Participants are entitled to cash dividends and to vote their respective shares. Shares granted prior to 2007 are subject to forfeiture if employment is terminated other than due to death, disability, or retirement. Shares granted since 2007 vest in four years or upon earlier retirement, death, or disability. The shares are nontransferable while subject to forfeiture.

|   |              | Weighted Average      |
|---|--------------|-----------------------|
| <b>Restricted Stock</b>                 | Shares (000) | Grant-Date Fair Value |
| Outstanding at 30 September 2010        | 141          | \$70.87               |
| Granted                                 | 32           | 86.39                 |
| Vested                                  | (19)         | 66.69                 |
| <b>Outstanding at 30 September 2011</b> | <b>154</b>   | <b>\$74.59</b>        |

As of 30 September 2011, there was \$2.0 of unrecognized compensation cost related to restricted stock awards. The cost is expected to be recognized over a weighted average period of 2.8 years. The total fair value of restricted stock vested during 2011 and 2010 was \$1.6 and \$1.0, respectively. During 2009, no restricted stock vested.

**19. NONCONTROLLING INTERESTS**

In 2008, we entered into a put option agreement to purchase the remaining noncontrolling interest in CryoService Limited (CSL), a cryogenic and specialty gases company in the U.K. We increased our ownership at that time from 25% to 72%. Put options were issued which gave the noncontrolling shareholders the right to require us to purchase their shares in CSL. The options were effective beginning January 2010 and are exercisable only within a 20-day option period each year. The option price is based on a multiple of earnings formula.

In June 2010, we entered into agreements obligating us to purchase 25% of the remaining shares of CSL. The agreements require the consideration, which is based on a multiple of earnings formula, to be remitted in December 2011. The share sale agreements effectively terminate the option agreements. The carrying value of the 25% noncontrolling interest at the time the sale share agreements were entered into was \$10.8. As a result of this arrangement, we reduced the noncontrolling interest for the 25% purchase obligation and recorded an estimated liability based on the earnings formula. As the purchase of the noncontrolling interest does not result in a change of control, the difference between the carrying value of the 25% noncontrolling interest and the liability recognized was recorded as a \$28.3 reduction in capital in excess of par value.

In the first quarter of 2011, we revised our initial estimate of the liability and recorded an adjustment of \$6.1 to the liability and capital in excess of par. At 30 September 2011 and 2010, the liability amounted to \$51.0 and \$42.0, respectively, and has been reported in payables and accrued liabilities and other noncurrent liabilities, respectively on the consolidated balance sheet as indicated in Note 22, Supplemental Information. Refer to Note 13, Fair Value Measurements, for a rollforward of the liability balance.

The following table presents the effect of changes in ownership interests in subsidiaries on Air Products shareholder's equity:

|   | 2011             | 2010             | 2009           |
|---|------------------|------------------|----------------|
| Net income attributable to Air Products   | \$1,224.2        | \$1,029.1        | \$631.3        |
| Transfers to noncontrolling interests   |                  |                  |                |
| Decrease in Air Products capital in excess of par value for purchase of noncontrolling interests      | (6.1)            | (28.3)           |                |
| <b>Changes from Net Income Attributable to Air Products and Transfers to Noncontrolling Interests</b> | <b>\$1,218.1</b> | <b>\$1,000.8</b> | <b>\$631.3</b> |



**Table of Contents****20. EARNINGS PER SHARE**

The calculation of basic and diluted earnings per share (EPS) is as follows:

| <b>30 September</b>  | <b>2011</b>      | <b>2010</b>      | <b>2009</b>    |
|--|------------------|------------------|----------------|
| <b>Numerator</b>   |                  |                  |                |
| Income from continuing operations                                      | \$1,215.3        | \$1,029.1        | \$639.9        |
| Income (Loss) from discontinued operations                             | 8.9              |                  | (8.6)          |
| <b>Net Income Attributable to Air Products</b>                         | <b>\$1,224.2</b> | <b>\$1,029.1</b> | <b>\$631.3</b> |
| <b>Denominator (in millions)</b>                                       |                  |                  |                |
| Weighted average number of common shares outstanding                   | 213.0            | 212.2            | 209.9          |
| Effect of dilutive securities  |                  |                  |                |
| Employee stock options   | 3.7              | 3.9              | 2.6            |
| Other award plans  | .9               | 1.0              | 1.0            |
|  | 4.6              | 4.9              | 3.6            |
| Weighted average number of common shares outstanding assuming dilution | 217.6            | 217.1            | 213.5          |
| <b>Basic EPS Attributable to Air Products</b>                          |                  |                  |                |
| Income from continuing operations                                      | \$5.71           | \$4.85           | \$3.05         |
| Income (Loss) from discontinued operations                             | .04              |                  | (.04)          |
| <b>Net Income Attributable to Air Products</b>                         | <b>\$5.75</b>    | <b>\$4.85</b>    | <b>\$3.01</b>  |
| <b>Diluted EPS Attributable to Air Products</b>                        |                  |                  |                |
| Income from continuing operations                                      | \$5.59           | \$4.74           | \$3.00         |
| Income (Loss) from discontinued operations                             | .04              |                  | (.04)          |
| <b>Net Income Attributable to Air Products</b>                         | <b>\$5.63</b>    | <b>\$4.74</b>    | <b>\$2.96</b>  |

Diluted EPS attributable to Air Products reflects the potential dilution that could occur if stock options or other share-based awards were exercised or converted into common stock. The dilutive effect is computed using the treasury stock method, which assumes all share-based awards are exercised and the hypothetical proceeds from exercise are used by the Company to purchase common stock at the average market price during the period. The incremental shares (difference between shares assumed to be issued versus purchased), to the extent they would have been dilutive, are included in the denominator of the diluted EPS calculation. Options on 2.1 million shares, 2.2 million shares, and 5.8 million shares were antidilutive and therefore excluded from the computation of diluted EPS for 2011, 2010, and 2009, respectively.

**21. INCOME TAXES**

The following table shows the components of the provision for income taxes:

|                | <b>2011</b>    | <b>2010</b>    | <b>2009</b>    |
|----------------|----------------|----------------|----------------|
| <b>Federal</b> |                |                |                |
| Current        | \$14.7         | \$100.5        | \$88.1         |
| Deferred       | 181.6          | 47.4           | 18.1           |
|                | 196.3          | 147.9          | 106.2          |
| <b>State</b>   |                |                |                |
| Current        | 20.1           | 2.7            | 35.8           |
| Deferred       | 2.6            | 4.3            | (20.9)         |
|                | 22.7           | 7.0            | 14.9           |
| <b>Foreign</b> |                |                |                |
| Current        | 187.9          | 140.1          | 113.7          |
| Deferred       | 1.5            | 44.5           | (49.5)         |
|                | 189.4          | 184.6          | 64.2           |
|                | <b>\$408.4</b> | <b>\$339.5</b> | <b>\$185.3</b> |

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The significant components of deferred tax assets and liabilities are as follows:

| <b>30 September</b>                           | <b>2011</b>    | <b>2010</b>    |
|---|----------------|----------------|
| <b>Gross Deferred Tax Assets</b>              |                |                |
| Retirement benefits and compensation accruals | \$513.5        | \$491.0        |
| Tax loss carryforwards                        | 43.7           | 62.2           |
| Tax credits                                   | 49.6           | 67.4           |
| Reserves and accruals                         | 95.8           | 75.4           |
| Acquisition-related costs                     |                | 35.9           |
| Asset impairment                              | 8.6            | 6.7            |
| Currency losses                               | 28.7           | 29.5           |
| Other   | 58.9           | 153.2          |
| Valuation allowance                           | (28.6)         | (55.4)         |
| <b>Deferred Tax Assets</b>                    | <b>770.2</b>   | <b>865.9</b>   |
| <b>Gross Deferred Tax Liabilities</b>         |                |                |
| Plant and equipment                           | 1,006.7        | 840.9          |
| Investment in partnerships                    | 7.3            | 5.6            |
| Unrealized gain on cost investments           |                | 11.8           |
| Unremitted earnings of foreign entities       | 37.9           |                |
| Intangible assets                             | 50.5           | 57.0           |
| Other   | 15.5           | 76.5           |
| <b>Deferred Tax Liabilities</b>               | <b>1,117.9</b> | <b>991.8</b>   |
| <b>Net Deferred Income Tax Liability</b>      | <b>\$347.7</b> | <b>\$125.9</b> |

Deferred tax assets and liabilities are included within the consolidated financial statements as:

|  | <b>2011</b>    | <b>2010</b>    |
|--|----------------|----------------|
| <b>Deferred Tax Assets</b>               |                |                |
| Other receivables and current assets     | \$104.0        | \$124.1        |
| Other noncurrent assets                  | 123.8          | 85.5           |
| <b>Total Deferred Tax Assets</b>         | <b>227.8</b>   | <b>209.6</b>   |
| <b>Deferred Tax Liabilities</b>          |                |                |
| Payables and accrued liabilities         | 5.4            | 0.4            |
| Deferred income taxes                    | 570.1          | 335.1          |
| <b>Total Deferred Tax Liabilities</b>    | <b>575.5</b>   | <b>335.5</b>   |
| <b>Net Deferred Income Tax Liability</b> | <b>\$347.7</b> | <b>\$125.9</b> |

Foreign and state loss carryforwards as of 30 September 2011 were \$105.1 and \$323.3, respectively. The foreign losses have expiration periods beginning in fiscal year 2012. Some of the foreign operations operate in jurisdictions with unlimited carryforward periods. State operating loss carryforwards have expiration periods that range between fiscal year 2012 and 2031.

The net change in the valuation allowance was a decrease of \$26.8 and an increase of \$23.5, for the years ended 30 September 2011 and 2010, respectively. The valuation allowance as of 30 September 2011 primarily relates to the tax loss carryforwards referenced above. If events warrant the reversal of the \$28.6 valuation allowance, it would result in a reduction of tax expense. We believe it is more likely than not that future earnings will be sufficient to utilize our deferred tax asset, net of existing valuation allowance, at 30 September 2011.

Income tax payments, net of refunds, were \$162.5 in 2011, \$192.0 in 2010, and \$124.5 in 2009.

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Major differences between the United States federal statutory tax rate and the effective tax rate are:

| (Percent of income before taxes)      | 2011         | 2010         | 2009         |
|---------------------------------------|--------------|--------------|--------------|
| U.S. federal statutory tax rate       | 35.0%        | 35.0%        | 35.0%        |
| State taxes, net of federal benefit   | .9           | .3           | 1.1          |
| Income from equity affiliates         | (3.1)        | (3.0)        | (4.7)        |
| Foreign taxes and credits             | (7.0)        | (8.3)        | (7.3)        |
| Domestic production activities        | (.5)         | (.6)         | (1.1)        |
| Tax audit settlements and adjustments | (1.0)        |              | (.8)         |
| Donation of investments               |              | (.4)         |              |
| Other                                 | 0.3          | 1.4          | (.1)         |
| <b>Effective Tax Rate</b>             | <b>24.6%</b> | <b>24.4%</b> | <b>22.1%</b> |

The following table summarizes the income of U.S. and foreign operations, before taxes:

|   | 2011             | 2010             | 2009           |
|---|------------------|------------------|----------------|
| <b>Income from Continuing Operations before Taxes</b> |                  |                  |                |
| United States   | \$625.5          | \$464.5          | \$374.3        |
| Foreign   | 881.2            | 802.6            | 350.1          |
| Income from equity affiliates                         | 154.3            | 126.9            | 112.2          |
| <b>Total</b>  | <b>\$1,661.0</b> | <b>\$1,394.0</b> | <b>\$836.6</b> |

We do not pay or record U.S. income taxes on the undistributed earnings of our foreign subsidiaries and corporate joint ventures as long as those earnings are permanently reinvested in the companies that produced them. These cumulative undistributed earnings are included in retained earnings on the consolidated balance sheets and amounted to \$4,051.6 at the end of 2011. An estimated \$967.9 in U.S. income and foreign withholding taxes would be due if these earnings were remitted as dividends after payment of all deferred taxes.

At 30 September 2011 and 2010, we had \$126.4 and \$197.8 of unrecognized tax benefits, excluding interest and penalties, of which \$93.1 and \$108.0, respectively, would impact the effective tax rate if recognized. Interest and penalties related to unrecognized tax benefits are recorded as a component of income tax expense and totaled \$(2.4) in 2011, \$5.5 in 2010, and \$2.5 in 2009. Our accrued balance for interest and penalties was \$33.3 and \$35.9 in 2011 and 2010, respectively.

In the third quarter of 2011, a U.S. Internal Revenue Service audit over tax years 2007 and 2008 was completed resulting in a decrease in unrecognized tax benefits of \$36.0 and a favorable impact to current year earnings of \$23.9. This included a tax benefit of \$8.9 or \$.04 per share, recognized in income from discontinued operations for fiscal year 2011, as it relates to the previously divested U.S. Healthcare business. Refer to Note 6, Discontinued Operations, for additional information on this divestiture.

A reconciliation of the beginning and ending amount of the unrecognized tax benefits is as follows:

| <b>Unrecognized Tax Benefits</b>                | 2011           | 2010           | 2009           |
|---|----------------|----------------|----------------|
| Balance at beginning of year                    | \$197.8        | \$163.1        | \$154.7        |
| Additions for tax positions of the current year | 16.3           | 31.8           | 23.6           |
| Additions for tax positions of prior years      | 5.7            | 12.9           | 36.3           |
| Reductions for tax positions of prior years     | (72.4)         | (1.0)          | (43.5)         |
| Settlements                                     | (15.6)         |                | (4.9)          |
| Statute of limitations expiration               | (4.8)          | (6.1)          | (5.4)          |
| Foreign currency translation                    | (0.6)          | (2.9)          | 2.3            |
| <b>Balance at End of Year</b>                   | <b>\$126.4</b> | <b>\$197.8</b> | <b>\$163.1</b> |

The unrecognized tax benefits include an amount related to certain transactions of a Spanish subsidiary for years 1991 and 1992, a period before we controlled this subsidiary. In March 2009 the Spanish appeals court (Audiencia Nacional) ruled in favor of our Spanish subsidiary. The Spanish government appealed this court decision to the Spanish Supreme Court. We did not reverse the liability accrued for these unrecognized tax benefits as this decision was appealed. We expect this case to be heard and decided within the next twelve months. As a result, we believe it

is reasonably possible that the unrecognized tax benefits could be reduced by \$60, including interest, within the next twelve months for this matter. If we prevail, this decrease would reduce income tax expense.

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We are also currently under examination in a number of other tax jurisdictions, some of which may be resolved in the next twelve months. As a result, it is reasonably possible that a change in the unrecognized tax benefits may occur during the next twelve months. However, quantification of an estimated range cannot be made at this time.

We generally remain subject to examination in the following major tax jurisdictions for the years indicated below:

| Major Tax Jurisdiction | Open Tax Years |
|------------------------|----------------|
| <b>North America</b>   |                |
| United States          | 2009 2011      |
| Canada                 | 2007 2011      |
| <b>Europe</b>          |                |
| United Kingdom         | 2008 2011      |
| Germany                | 2006 2011      |
| Netherlands            | 2005 2011      |
| Poland                 | 2005 2011      |
| Spain                  | 2009 2011      |
| <b>Asia</b>            |                |
| China                  | 2006 2011      |
| Taiwan                 | 2006 2011      |
| Korea                  | 2006 2011      |

We have been challenged by the Spanish tax authorities over income tax deductions taken by certain of our Spanish subsidiaries during fiscal years 2005-2011. Although we continue to believe that all positions taken were compliant with applicable laws, in November 2011 we reached a settlement with the Spanish tax authorities for approximately 40 (approximately \$55) in resolution of all tax issues under examination. A significant portion of the settlement amount will be recorded as an increase to income tax expense in the first quarter of fiscal year 2012.

**22. SUPPLEMENTAL INFORMATION****Other Receivables and Current Assets**

| 30 September                      | 2011           | 2010           |
|-----------------------------------|----------------|----------------|
| Deferred tax assets               | \$104.0        | \$124.1        |
| Derivative instruments            | 30.8           | 42.6           |
| Other receivables                 | 103.3          | 120.7          |
| Current capital lease receivables | 47.1           | 39.1           |
| Other                             | 1.1            | 45.6           |
|                                   | <b>\$286.3</b> | <b>\$372.1</b> |

**Other Noncurrent Assets**

| 30 September                | 2011           | 2010           |
|-----------------------------|----------------|----------------|
| Restricted cash             | \$77.2         | \$95.7         |
| Derivative instruments      | 87.4           | 71.8           |
| Other long-term receivables | 43.7           | 61.6           |
| Airgas investment           |                | 102.5          |
| Deferred tax assets         | 123.8          | 85.5           |
| Other                       | 149.3          | 120.2          |
|                             | <b>\$481.4</b> | <b>\$537.3</b> |

**Payables and Accrued Liabilities**

| 30 September  | 2011    | 2010    |
|---|---------|---------|
| Trade creditors   | \$800.0 | \$662.2 |
| Customer advances                                       | 136.0   | 80.7    |
| Accrued payroll and employee benefits                   | 204.6   | 207.5   |
| Pension benefits  | 33.8    | 238.8   |
| Dividends payable                                       | 121.9   | 104.8   |
| Outstanding payments in excess of certain cash balances | 36.8    | 31.4    |

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|   |                  |           |
|---|------------------|-----------|
| Accrued interest expense  | <b>51.3</b>      | 52.9      |
| Derivative instruments  | <b>40.6</b>      | 31.9      |
| Acquisition-related accrual   |                  | 117.7     |
| Liability related to purchase of shares from noncontrolling interests | <b>51.0</b>      |           |
| Other   | <b>165.8</b>     | 174.1     |
|   | <b>\$1,641.8</b> | \$1,702.0 |

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| <b>Other Noncurrent Liabilities</b>                                   |                  |                  |
|---|------------------|------------------|
| <b>30 September</b>   | <b>2011</b>      | <b>2010</b>      |
| Pension benefits  | \$914.8          | \$803.2          |
| Postretirement benefits   | 101.0            | 107.2            |
| Other employee benefits   | 100.5            | 103.5            |
| Contingencies related to uncertain tax positions                      | 154.1            | 228.8            |
| Advance payments  | 46.2             | 69.6             |
| Environmental liabilities   | 75.1             | 79.9             |
| Liability related to purchase of shares from noncontrolling interests |                  | 42.0             |
| Derivative instruments  | 3.2              | 22.3             |
| Other   | 117.5            | 112.8            |
|   | <b>\$1,512.4</b> | <b>\$1,569.3</b> |

| <b>Accumulated Other Comprehensive Income (Loss)</b>        |                    |                    |                    |
|---|--------------------|--------------------|--------------------|
| <b>30 September</b>   | <b>2011</b>        | <b>2010</b>        | <b>2009</b>        |
| Net unrealized holding gain on investments                  | \$                 | \$20.7             | \$10.5             |
| Net unrecognized (loss) on derivatives qualifying as hedges | (9.5)              | (21.9)             | (25.1)             |
| Foreign currency translation adjustments                    | (130.9)            | (44.1)             | (179.8)            |
| Pension and postretirement benefits                         | (1,113.0)          | (1,114.1)          | (967.4)            |
|   | <b>\$(1,253.4)</b> | <b>\$(1,159.4)</b> | <b>\$(1,161.8)</b> |

| <b>Other Income (Expense), Net</b> |               |               |               |
|------------------------------------|---------------|---------------|---------------|
| <b>30 September</b>                | <b>2011</b>   | <b>2010</b>   | <b>2009</b>   |
| Technology and royalty income      | \$24.3        | \$19.0        | \$19.5        |
| Interest income                    | 5.7           | 3.4           | 7.4           |
| Foreign exchange                   | (8.6)         | 4.0           | (3.8)         |
| Sale of assets and investments     | 12.8          | 13.2          | (3.0)         |
| Amortization of intangibles        | (5.5)         | (8.4)         | (10.1)        |
| Government grants                  | 9.5           |               |               |
| Other                              | (1.0)         | 7.5           | 13.0          |
|                                    | <b>\$37.2</b> | <b>\$38.7</b> | <b>\$23.0</b> |

**Customer Bankruptcy and Asset Actions**

On 6 January 2009, one of our customers, who principally receives product from the Tonnage Gases segment, began operating under Chapter 11 bankruptcy protection. As a result, we recognized a \$22.2 (\$13.9 after-tax, or \$.07 per share) charge, primarily for the write-off of certain receivables during the third quarter of 2009. Sales and operating income associated with this customer are not material to the Tonnage Gases segment's results.

In April 2010, the customer emerged from bankruptcy proceedings. We received a final settlement in the amount of \$22.4, of which \$16.0 was applied against the remaining outstanding receivables. Income of \$6.4 (\$4.0 after-tax, or \$.02 per share) was recognized for the recovery of certain receivables that had been previously written off. This amount was recorded as a gain and is reflected within customer bankruptcy on the consolidated income statement.

In the third quarter of 2009, we recorded a charge of \$9.9 (\$7.1 after-tax, or \$.03 per share) for other asset actions which consisted of the closure of certain manufacturing facilities. This charge was reflected in cost of sales on the consolidated income statement.

**Table of Contents****23. SUMMARY BY QUARTER (UNAUDITED)**

These tables summarize the unaudited results of operations for each quarter of 2011 and 2010:

| <b>2011</b>   |      | First     | Second    | Third     | Fourth    | Total      |
|---|------|-----------|-----------|-----------|-----------|------------|
| Sales   |      | \$2,391.7 | \$2,501.3 | \$2,577.8 | \$2,611.2 | \$10,082.0 |
| Gross profit  |      | 671.2     | 698.8     | 695.7     | 701.0     | 2,766.7    |
| Net loss on Airgas transaction                                    |      | 43.5      | 5.0       |           |           | 48.5       |
| Operating income  |      | 360.6     | 419.5     | 416.8     | 425.3     | 1,622.2    |
| Income from continuing operations- attributable to Air Products   |      | 268.6     | 304.3     | 317.6     | 324.8     | 1,215.3    |
| Income from discontinued operations- attributable to Air Products |      |           |           | 8.9       |           | 8.9        |
| Net Income  |      | 275.9     | 311.5     | 335.0     | 339.1     | 1,261.5    |
| Net Income attributable to Air Products                           |      | 268.6     | 304.3     | 326.5     | 324.8     | 1,224.2    |
| Basic EPS attributable to Air Products                            |      |           |           |           |           |            |
| Income from continuing operations                                 |      | 1.25      | 1.42      | 1.50      | 1.54      | 5.71       |
| Income from discontinued operations                               |      |           |           | .04       |           | 0.04       |
| Net income per common share                                       |      | 1.25      | 1.42      | 1.54      | 1.54      | 5.75       |
| Diluted EPS attributable to Air Products                          |      |           |           |           |           |            |
| Income from continuing operations                                 |      | 1.23      | 1.39      | 1.46      | 1.51      | 5.59       |
| Income from discontinued operations                               |      |           |           | .04       |           | 0.04       |
| Net income per common share                                       |      | 1.23      | 1.39      | 1.50      | 1.51      | 5.63       |
| Dividends declared per common share                               |      | .49       | .58       | .58       | .58       | 2.23       |
| Market price per common share:                                    | High | 91.39     | 95.00     | 96.00     | 98.00     |            |
|   | Low  | 80.90     | 83.22     | 89.18     | 74.58     |            |
| <b>2010</b>   |      | First     | Second    | Third     | Fourth    | Total      |
| Sales   |      | \$2,173.5 | \$2,249.0 | \$2,252.3 | \$2,351.2 | \$9,026.0  |
| Gross profit  |      | 604.9     | 620.3     | 641.2     | 656.6     | 2,523.0    |
| Net loss on Airgas Transaction                                    |      |           | 23.4      | 37.9      | 34.7      | 96.0       |
| Customer bankruptcy   |      |           |           | (1.8)     | (4.6)     | (6.4)      |
| Pension settlement  |      |           |           | 6.3       | 5.2       | 11.5       |
| Operating income  |      | 345.0     | 340.6     | 336.4     | 367.0     | 1,389.0    |
| Net income  |      | 256.8     | 258.4     | 261.3     | 278.0     | 1,054.5    |
| Net income attributable to Air Products                           |      | 251.8     | 252.0     | 253.2     | 272.1     | 1,029.1    |
| Basic EPS attributable to Air Products                            |      |           |           |           |           |            |
| Net income per common share                                       |      | 1.19      | 1.19      | 1.19      | 1.28      | 4.85       |
| Diluted EPS attributable to Air Products                          |      |           |           |           |           |            |
| Net income per common share                                       |      | 1.16      | 1.16      | 1.17      | 1.25      | 4.74       |
| Dividends declared per common share                               |      | .45       | .49       | .49       | .49       | 1.92       |
| Market price per common share:                                    | High | 85.44     | 83.80     | 80.24     | 84.43     |            |
|   | Low  | 73.76     | 65.05     | 64.47     | 64.13     |            |

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**Table of Contents****24. BUSINESS SEGMENT AND GEOGRAPHIC INFORMATION**

Our segments are organized based on differences in product and/or type of customer. We have four business segments consisting of Merchant Gases, Tonnage Gases, Electronics and Performance Materials, and Equipment and Energy.

**Merchant Gases**

The Merchant Gases segment sells atmospheric gases such as oxygen, nitrogen, and argon (primarily recovered by the cryogenic distillation of air); process gases such as hydrogen and helium (purchased or refined from crude helium); and medical and specialty gases, along with certain services and equipment, throughout the world to customers in many industries, including those in metals, glass, chemical processing, food processing, healthcare, steel, general manufacturing, and petroleum and natural gas industries. There are four principal types of products: liquid bulk, packaged gases, small on-site plants, and healthcare products. Most merchant product is delivered via bulk supply, in liquid or gaseous form, by tanker or tube trailer. Smaller quantities of industrial, specialty, and medical gases are delivered in cylinders and dewars as packaged gases, or through small on-sites (cryogenic or noncryogenic generators). Through our healthcare business, we offer respiratory therapies, home medical equipment, and infusion services, primarily in Europe. Electricity is the largest cost component in the production of atmospheric gases. Natural gas is also an energy source at a number of our Merchant Gases facilities. We mitigate energy and natural gas prices through pricing formulas and surcharges. The Merchant Gases segment also includes our 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, India and Thailand. Merchant Gases competes worldwide against global industrial gas companies and several regional sellers. Competition in industrial gases is based primarily on price, reliability of supply, and the development of industrial gas applications. Competition in the healthcare business involves price, quality, service, and reliability of supply.

**Tonnage Gases**

Tonnage Gases provides hydrogen, carbon monoxide, nitrogen, oxygen, and syngas principally to the energy production and refining, chemical, and metallurgical industries worldwide. The Tonnage Gases segment also includes our Polyurethane Intermediates (PUI) business. The PUI business markets toluene diamine to customers under long-term contracts. For large-volume, or tonnage industrial gas users, we either construct a gas plant adjacent to or near the customer's facility hence the term on-site or deliver product through a pipeline from a nearby location. We are the world's largest provider of hydrogen, which is used by refiners to lower the sulfur content of gasoline and diesel fuels to reduce smog and ozone depletion. Electricity is the largest cost component in the production of atmospheric gases, and natural gas is the principal raw material for hydrogen, carbon monoxide, and syngas production. We mitigate energy and natural gas price changes through our long-term cost pass-through type contracts. Tonnage Gases competes against global industrial gas companies, as well as 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 derive a competitive advantage in regions where we have pipeline networks, which enable us to provide reliable and economic supply of products to customers.

**Electronics and Performance Materials**

The Electronics and Performance Materials segment employs applications technology to provide solutions to a broad range of global industries through expertise in chemical synthesis, analytical technology, process engineering, and surface science. This segment provides specialty and tonnage gases, specialty chemicals, services, and equipment to the electronics industry for the manufacture of silicon and compound semiconductors, LCD and other displays, and photovoltaic devices. The segment also provides performance chemical solutions for the coatings, inks, adhesives, civil engineering, personal care, institutional and industrial cleaning, mining, oil field, polyurethane, and other industries. 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.

**Equipment and Energy**

The Equipment and Energy segment designs and manufactures cryogenic and gas processing equipment for air separation, hydrocarbon recovery and purification, natural gas liquefaction (LNG), and helium distribution, and serves energy markets in a variety of ways. Equipment is sold worldwide to customers in a variety of industries, including chemical and petrochemical manufacturing, oil and gas recovery and processing, and steel and primary metals processing. Energy markets are served through our 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



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produce electricity, carbon capture technologies for a variety of industrial and power applications, and oxygen-based technologies to serve energy markets in the future. 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.

**Other**

Other operating income (loss) includes other expense and income that cannot be directly associated with the business segments, including foreign exchange gains and losses, and costs previously allocated to businesses now reported as discontinued operations. Also included are LIFO inventory adjustments, as the business segments use FIFO and the LIFO pool adjustments are not allocated to the business segments. Corporate general and administrative costs and research and development costs are fully allocated to the business segments.

Other assets include cash, restricted cash, deferred tax assets, pension assets, financial instruments, and corporate assets previously allocated to businesses now reported as discontinued operations.

**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.

**Accounting Policies**

The accounting policies of the segments are the same as those described in Note 1, Major Accounting Policies. We evaluate the performance of segments based upon reported segment operating income. Operating income of the business segments includes general corporate expenses. Intersegment sales are not material and are recorded at selling prices that approximate market prices. Equipment manufactured for our industrial gas business is generally transferred at cost and not reflected as an intersegment sale.

**Business Segments**

|   | 2011              | 2010             | 2009             |
|---|-------------------|------------------|------------------|
| <b>Sales to External Customers</b>        |                   |                  |                  |
| Merchant Gases                            | \$4,073.2         | \$3,718.3        | \$3,610.6        |
| Tonnage Gases                             | 3,316.7           | 2,930.8          | 2,573.6          |
| Electronics and Performance Materials     | 2,291.5           | 1,904.7          | 1,582.2          |
| Equipment and Energy                      | 400.6             | 472.2            | 489.8            |
| <b>Segment and Consolidated Totals</b>    | <b>\$10,082.0</b> | <b>\$9,026.0</b> | <b>\$8,256.2</b> |
| <b>Operating Income</b>                   | <b>2011</b>       | <b>2010</b>      | <b>2009</b>      |
| Merchant Gases                            | \$759.8           | \$729.4          | \$661.2          |
| Tonnage Gases                             | 503.1             | 444.2            | 399.6            |
| Electronics and Performance Materials     | 361.1             | 251.8            | 101.6            |
| Equipment and Energy                      | 62.8              | 67.3             | 42.2             |
| Segment total                             | \$1,686.8         | \$1,492.7        | \$1,204.6        |
| Global cost reduction plan <sup>(A)</sup> |                   |                  | (298.2)          |
| Net loss on Airgas transaction            | (48.5)            | (96.0)           |                  |
| Customer bankruptcy and asset actions     |                   | 6.4              | (32.1)           |
| Pension settlement                        |                   | (11.5)           | (10.7)           |
| Other                                     | (16.1)            | (2.6)            | (17.3)           |
| <b>Consolidated Total</b>                 | <b>\$1,622.2</b>  | <b>\$1,389.0</b> | <b>\$846.3</b>   |

<sup>(A)</sup> Information about how this charge related to the businesses at the segment level is discussed in Note 5, Global Cost Reduction Plan.

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|  | 2011              | 2010              | 2009              |
|--|-------------------|-------------------|-------------------|
| <b>Depreciation and Amortization</b>                     |                   |                   |                   |
| Merchant Gases   | \$396.6           | \$377.9           | \$372.3           |
| Tonnage Gases  | 310.9             | 303.0             | 272.2             |
| Electronics and Performance Materials                    | 154.9             | 169.0             | 178.2             |
| Equipment and Energy                                     | 11.0              | 12.7              | 15.9              |
| Segment total  | \$873.4           | \$862.6           | \$838.6           |
| Other  | .5                | .8                | 1.7               |
| <b>Consolidated Total</b>                                | <b>\$873.9</b>    | <b>\$863.4</b>    | <b>\$840.3</b>    |
| <b>Equity Affiliates Income</b>                          |                   |                   |                   |
| Merchant Gases   | \$134.6           | \$104.3           | \$98.3            |
| Other segments   | 19.7              | 22.6              | 13.9              |
| <b>Segment and Consolidated Totals</b>                   | <b>\$154.3</b>    | <b>\$126.9</b>    | <b>\$112.2</b>    |
| <b>Total Assets</b>                                      |                   |                   |                   |
| Merchant Gases   | \$5,892.1         | \$5,824.7         | \$5,630.8         |
| Tonnage Gases  | 4,581.8           | 3,958.1           | 3,672.0           |
| Electronics and Performance Materials                    | 2,560.7           | 2,336.1           | 2,299.1           |
| Equipment and Energy                                     | 357.5             | 362.7             | 333.8             |
| Segment total  | \$13,392.1        | \$12,481.6        | \$11,935.7        |
| Other  | 898.6             | 1,024.3           | 1,093.4           |
| <b>Consolidated Total</b>                                | <b>\$14,290.7</b> | <b>\$13,505.9</b> | <b>\$13,029.1</b> |
| <b>Investment in and Advances to Equity Affiliates</b>   |                   |                   |                   |
| Merchant Gases   | \$800.4           | \$749.4           | \$713.8           |
| Other segments   | 211.2             | 163.4             | 154.3             |
| <b>Segment and Consolidated Totals</b>                   | <b>\$1,011.6</b>  | <b>\$912.8</b>    | <b>\$868.1</b>    |
| <b>Identifiable Assets</b>                               |                   |                   |                   |
| Merchant Gases   | \$5,091.7         | \$5,075.3         | \$4,917.0         |
| Tonnage Gases  | 4,464.3           | 3,876.4           | 3,597.8           |
| Electronics and Performance Materials                    | 2,488.9           | 2,275.8           | 2,249.5           |
| Equipment and Energy                                     | 335.6             | 341.3             | 303.3             |
| Segment total  | \$12,380.5        | \$11,568.8        | \$11,067.6        |
| Other  | 898.6             | 1,024.3           | 1,093.4           |
| <b>Consolidated Total</b>                                | <b>\$13,279.1</b> | <b>\$12,593.1</b> | <b>\$12,161.0</b> |
| <b>Expenditures for Long Lived Assets <sup>(A)</sup></b> |                   |                   |                   |
| Merchant Gases   | \$432.9           | \$311.5           | \$510.8           |
| Tonnage Gases  | 669.9             | 557.2             | 532.1             |
| Electronics and Performance Materials                    | 196.0             | 139.0             | 125.4             |
| Equipment and Energy                                     | 45.9              | 22.4              | 9.8               |
| Segment total  | \$1,344.7         | \$1,030.1         | \$1,178.1         |
| Other  | 7.0               | .8                | 1.0               |
| <b>Consolidated Total</b>                                | <b>\$1,351.7</b>  | <b>\$1,030.9</b>  | <b>\$1,179.1</b>  |

<sup>(A)</sup> Includes plant and equipment

**Table of Contents****Geographic Information**

|   | 2011              | 2010             | 2009             |
|---|-------------------|------------------|------------------|
| <b>Sales to External Customers</b>      |                   |                  |                  |
| United States                           | \$4,423.8         | \$4,110.2        | \$3,779.8        |
| Canada                                  | 297.0             | 260.3            | 238.6            |
| Europe                                  | 3,002.1           | 2,819.7          | 2,765.1          |
| Asia                                    | 2,122.1           | 1,621.0          | 1,294.2          |
| Latin America/other                     | 237.0             | 214.8            | 178.5            |
|   | <b>\$10,082.0</b> | <b>\$9,026.0</b> | <b>\$8,256.2</b> |
| <b>Long Lived Assets <sup>(A)</sup></b> |                   |                  |                  |
| United States                           | \$3,099.2         | \$2,968.0        | \$2,987.1        |
| Canada                                  | 566.1             | 608.8            | 535.2            |
| Europe                                  | 1,833.7           | 1,711.1          | 1,766.8          |
| Asia                                    | 1,786.2           | 1,658.4          | 1,462.3          |
| Latin America/other                     | 126.8             | 105.0            | 108.2            |
|   | <b>\$7,412.0</b>  | <b>\$7,051.3</b> | <b>\$6,859.6</b> |

<sup>(A)</sup> Long lived assets include plant and equipment, net.

Geographic information is based on country of origin. Included in United States revenues are export sales to third party customers of \$589.7 in 2011, \$570.5 in 2010, and \$510.2 in 2009. The Europe segment operates principally in Belgium, France, Germany, the Netherlands, Poland, the U.K., and Spain. The Asia segment operates principally in China, Japan, Korea, and Taiwan.

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

Not applicable

**ITEM 9A. CONTROLS AND PROCEDURES**

Under the supervision of the Chief Executive Officer and Chief Financial Officer, the Company's management conducted an evaluation of the effectiveness of the Company's disclosure controls and procedures as of 30 September 2011. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the annual period covered by this report, the disclosure controls and procedures have been effective. There has been no change in the Company's internal control over financial reporting (as that term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) as of 30 September 2011 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting is provided under Item 8 appearing above. The report of KPMG LLP, the Company's independent registered public accounting firm, regarding the Company's internal control over financial reporting, is also provided under Item 8 appearing above.

**ITEM 9B. OTHER INFORMATION**

Not applicable.

**PART III**

**ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The biographical information relating to the Company's directors, appearing in the Proxy Statement relating to the Company's 2012 Annual Meeting of Shareholders (the 2012 Proxy Statement) under the section "The Board of Directors," is incorporated herein by reference. Biographical information relating to the Company's executive officers is set forth in Item 1 of Part I of this Report.

Information on Section 16(a) Beneficial Ownership Reporting Compliance, appearing in the 2012 Proxy Statement under the section "Air Products Stock Beneficially Owned by Officers and Directors," is incorporated herein by reference.

We have adopted a Code of Conduct that applies to all employees, including the Chief Executive Officer, the Chief Financial Officer, and the Controller. The Code of Conduct can be found at our Internet website at [www.airproducts.com/codeofconduct](http://www.airproducts.com/codeofconduct).

Information on our procedures regarding our consideration of candidates recommended by shareholders and a procedure for submission of such candidates, appearing in the 2012 Proxy Statement under the section "Selection of Directors," is incorporated by reference. Information on the Company's Audit Committee and its Audit Committee Financial Expert, appearing in the 2012 Proxy Statement under the section "Audit Committee," is incorporated by reference.

**ITEM 11. EXECUTIVE COMPENSATION**

The information under "Compensation of Executive Officers" which includes "Report of the Management Development and Compensation Committee," "Compensation Discussion and Analysis," "Executive Compensation Tables," "Potential Payments Upon Termination or Change in Control," and "Information About Stock Ownership," appearing in the 2012 Proxy Statement, is incorporated herein by reference.

**Table of Contents****ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS****Securities Authorized for Issuance Under Equity Compensation Plans.****Equity Compensation Plan Information**

The following table provides information as of 30 September 2011 about Company stock that may be issued upon the exercise of options, warrants, and rights granted to employees or members of the Board under the Company's existing equity compensation plans, including plans approved by shareholders and plans that have not been approved by shareholders in reliance on the NYSE's former treasury stock exception or other applicable exception to the Exchange's listing requirements.

| <b>Plan Category</b>                                       | <b>Number of securities to be issued upon exercise of outstanding options, warrants, and rights</b> | <b>Weighted-average exercise price of outstanding options, warrants, and rights</b> | <b>Number of Securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))</b> |
|--|---|---|--|
| Equity compensation plans approved by security holders     | 14,721,178 <sup>(1)</sup>   | \$62.89   | 5,178,875 <sup>(2)</sup>   |
| Equity compensation plans not approved by security holders | 367,627 <sup>(3)</sup>  | \$43.14   | 0  |
| <b>Total</b>   | <b>15,088,805</b>   | <b>\$62.55</b>  | <b>5,178,875</b>   |

<sup>(1)</sup> Represents Long-Term Incentive Plan outstanding stock options and deferred stock units that have been granted. Deferred stock units entitle the recipient to one share of Company common stock upon vesting, which is conditioned on continued employment during a deferral period and may also be conditioned on earn-out against certain performance targets.

<sup>(2)</sup> Represents authorized shares that were available for future grants as of 30 September 2011. These shares may be used for options, deferred stock units, restricted stock, and other stock-based awards to officers, directors, and key employees. Full value awards such as restricted stock are limited to 20% of cumulative awards.

<sup>(3)</sup> Represents outstanding options under the Stock Incentive Plan (224,068) and the Stock Option Plan for Directors (4,000). This number also includes deferred stock units granted under the Deferred Compensation Plan for Directors prior to 23 January 2003 (9,715) and deferred stock units under the Deferred Compensation Plan (129,844). Deferred stock units issued under the Deferred Compensation Plan are purchased for the fair market value of the underlying shares of stock with eligible deferred compensation.

The following equity compensation plans or programs were not approved by shareholders. All of these plans have either been discontinued or do not require shareholder approval because participants forego current compensation equal to the full market value of any share units credited under the plans.

*Stock Incentive Program* No further awards will be made under this program. All stock options under this program were granted at fair market value on the date of grant, first became exercisable three years after grant, and terminate ten years after the date of grant or upon the holder's earlier termination of employment for reasons other than retirement, disability, death, or involuntary termination due to Company action necessitated by business conditions.

*Stock Option Plan for Directors* All stock options under this plan were granted at fair market value on the date of grant. The options became exercisable six months after grant and remain exercisable for nine and one-half years or, if earlier, two years following the date the director resigns from the Board (other than because of retirement, disability or death). This plan is no longer offered. Stock options may now be granted to directors under the Long-Term Incentive Plan; however, since September 2005, the compensation program for nonemployee directors has not

provided stock options.

*Deferred Compensation Plan for Directors* This plan is no longer offered. It was the prior vehicle for providing deferred stock units to the Company's directors. The compensation program for nonemployee directors provides that directors have the opportunity to purchase deferred stock units with their retainers and meeting fees. New directors and directors continuing in office after the annual meetings are awarded an annual grant of deferred stock units. Each deferred stock unit entitles the director to one share of Company stock when paid out. Deferred stock units also accrue dividend equivalents which are equal to the dividends that would have been paid on a share of stock during the period the units are outstanding. Accumulated dividend equivalents are converted to deferred stock units on a quarterly basis. Deferred stock units are now provided to directors under the Long-Term Incentive Plan.

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*Deferred Compensation Plan* The Company's Deferred Compensation Plan is an unfunded employee retirement benefit plan available to certain of the Company's U.S.-based management and other highly compensated employees (and those of its subsidiaries) who receive awards under the Company's Annual Incentive Plan, which is the annual cash bonus plan for executives and key salaried employees of the Company and its subsidiaries. Because participants forego current compensation to purchase deferred stock units for full value under the Plan, it is not required to be approved by shareholders under the NYSE listing standards. Under the Plan, participants may defer a portion of base salary which cannot be contributed to the Company's Retirement Savings Plan, a 401(k) and profit-sharing plan offered to all salaried employees (RSP), because of tax limitations (elective deferrals) and earn matching contributions from the Company that they would have received if their elective deferrals had been contributed to the RSP (matching credits). In addition, participants in the Plan may defer all or a portion of their bonus awards under the Annual Incentive Plan (bonus deferrals) under the Deferred Compensation Plan. Finally, certain participants under the Plan who participate in the profit-sharing component of the RSP rather than the Company's salaried pension plans receive contribution credits under the Plan which are a percentage of their salary ranging from 4%-6% based on their years of service (contribution credits). The dollar amount of elective deferrals, matching credits, bonus deferrals, and contribution credits is initially credited to an unfunded account, which earns interest credits. Participants are periodically permitted while employed by the Company to irrevocably convert all or a portion of their interest-bearing account to deferred stock units in a Company stock account. Upon conversion, the Company stock account is credited with deferred stock units based on the fair market value of a share of Company stock on the date of crediting. Dividend equivalents corresponding to the number of units are credited quarterly to the interest-bearing account. Deferred stock units generally are paid after termination of employment in shares of Company stock.

The Deferred Compensation Plan was formerly known as the Supplementary Savings Plan. The name was changed in 2006 when the deferred bonus program, previously administered under the Annual Incentive Plan, was merged into this Plan.

The information set forth in the sections headed "Persons Owning More than 5% of Air Products Stock as of September 30, 2011," and "Air Products Stock Beneficially Owned by Officers and Directors," appearing in the Proxy Statement relating to the Company's 2012 Annual Meeting of Shareholders, is incorporated herein by reference.

**ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information appearing in the 2012 Proxy Statement under the sections "Director Independence" and "Transactions with Related Persons" is incorporated by reference.

**ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information appearing in the 2012 Proxy Statement under the section "Fees of Independent Registered Public Accountant," is incorporated herein by reference.

**PART IV**

**ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES**

(a) The following documents are filed as a part of this report:

- (1) The Company's 2011 consolidated financial statements and the Report of the Independent Registered Public Accounting Firm are included in Part II, Item 8.
- (2) Financial Statement Schedules the following additional information should be read in conjunction with the consolidated financial statements in the Company's 2011 consolidated financial statements.

Schedule II Valuation and Qualifying Accounts for the three fiscal years ended 30 September 2011

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All other schedules are omitted because the required matter or conditions are not present or because the information required by the Schedules is submitted as part of the consolidated financial statements and notes thereto.

(3)

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Exhibits The exhibits filed as a part of this Annual Report on Form 10-K are listed in the Index to Exhibits located on page 98 of this Report.

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**SIGNATURES**

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

AIR PRODUCTS AND CHEMICALS, INC.

(Registrant)

By: /s/ Paul E. Huck  
Paul E. Huck

Senior Vice President and Chief Financial Officer

(Principal Financial Officer)

Date: 22 November 2011

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

| <b>Signature and Title</b>   | <b>Date</b>      |
|--|------------------|
| /s/ John E. McGlade<br>(John E. McGlade)<br><br>Director, Chairman, President, and<br><br>Chief Executive Officer<br><br>(Principal Executive Officer) | 22 November 2011 |
| /s/ M. Scott Crocco<br>(M. Scott Crocco)<br><br>Vice President and Corporate Controller<br><br>(Principal Accounting Officer)                          | 22 November 2011 |
| *<br>(Mario L. Baeza)<br><br>Director  | 22 November 2011 |
| *<br>(Susan K. Carter)<br><br>Director   | 22 November 2011 |
| *<br>(William L. Davis, III)   | 22 November 2011 |

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Director

\*  
(Chad C. Deaton)

22 November 2011

Director

\*  
(Michael J. Donahue)

22 November 2011

Director

\*  
(Ursula O. Fairbairn)

22 November 2011

Director

\*  
(W. Douglas Ford)

22 November 2011

Director

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|                              |                  |
|------------------------------|------------------|
| *<br>(Edward E. Hagenlocker) | 22 November 2011 |
| Director                     |                  |
| *<br>(Evert Henkes)          | 22 November 2011 |
| Director                     |                  |
| *<br>(Margaret G. McGlynn)   | 22 November 2011 |
| Director                     |                  |
| *<br>(Lawrence S. Smith)     | 22 November 2011 |
| Director                     |                  |

\* Mary T. Afflerbach, Corporate Secretary and Chief Governance Officer, by signing her name hereto, does sign this document on behalf of the above noted individuals, pursuant to a power of attorney duly executed by such individuals, which is filed with the Securities and Exchange Commission herewith.

/s/ Mary T. Afflerbach  
Mary T. Afflerbach  
Attorney-in-Fact

Date: 22 November 2011

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SCHEDULE II  
CONSOLIDATED

AIR PRODUCTS AND CHEMICALS, INC. AND SUBSIDIARIES

**SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS**

For the Years Ended 30 September 2011, 2010, and 2009

|                                     | Balance at<br>Beginning<br>of Period | Additions<br>Charged to<br>Expense | Charged<br>to<br>Other<br>Accounts | Other Changes<br>Increase (Decrease)<br>Cumulative<br>Translation<br>Adjustment | Other <sup>(A)</sup> | Balance<br>at End of<br>Period |
|-------------------------------------|--------------------------------------|------------------------------------|------------------------------------|---|----------------------|--------------------------------|
|                                     | (in millions of<br>dollars)          |                                    |                                    |   |                      |                                |
| <b>Year Ended 30 September 2011</b> |                                      |                                    |                                    |   |                      |                                |
| Allowance for doubtful accounts     | \$99                                 | \$16                               | \$7                                | \$(1)   | \$(23)               | \$98                           |
| Allowance for deferred tax assets   | 55                                   | (27)                               | 0                                  | 0   | 0                    | 28                             |
| <b>Year Ended 30 September 2010</b> |                                      |                                    |                                    |   |                      |                                |
| Allowance for doubtful accounts     | \$65                                 | \$4                                | \$25                               | \$  | \$5                  | \$99                           |
| Allowance for deferred tax assets   | 32                                   | 26                                 | (2)                                | (1)   |                      | 55                             |
| <b>Year Ended 30 September 2009</b> |                                      |                                    |                                    |   |                      |                                |
| Allowance for doubtful accounts     | \$36                                 | \$24                               | \$14                               | \$1   | \$(10)               | \$65                           |
| Allowance for deferred tax assets   | 61                                   | (30)                               |                                    | 1   |                      | 32                             |

Note:

<sup>(A)</sup> Primarily write-offs of uncollectible trade receivable accounts and tax valuation allowances.

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**INDEX TO EXHIBITS**

| <b>Exhibit No.</b> | <b>Description</b>   |
|--------------------|--|
| (3)                | Articles of Incorporation and By-Laws.   |
| 3.1                | Amended and Restated By-Laws of the Company. (Filed as Exhibit 3 to the Company's Form 8-K Report dated 26 July 2011.)*  |
| 3.2                | Restated Certificate of Incorporation of the Company. (Filed as Exhibit 3.2 to the Company's Form 10-K Report for the fiscal year ended 30 September 1987.)*   |
| 3.3                | Amendment to the Restated Certificate of Incorporation of the Company dated 25 January 1996. (Filed as Exhibit 3.3 to the Company's Form 10-K Report for the fiscal year ended 30 September 1996.)*  |
| (4)                | Instruments defining the rights of security holders, including indentures. Upon request of the Securities and Exchange Commission, the Company hereby undertakes to furnish copies of the instruments with respect to its long-term debt.  |
| 4.1                | Indenture, dated as of January 18, 1985, between the Company and The Chase Manhattan Bank (National Association), as Trustee. (Filed as Exhibit 4(a) to the Company's Registration Statement No. 33-36974.)*   |
| 4.2                | Indenture, dated as of January 10, 1995, between the Company and The Bank of New York Trust Company, N.A. (formerly Wachovia Bank, National Association and initially First Fidelity Bank Company, National Association), as Trustee. (Filed as Exhibit 4(a) to the Company's Registration Statement No. 33-57357.)*                       |
| (10)               | Material Contracts   |
| 10.1               | 1990 Deferred Stock Plan of the Company, as amended and restated effective 1 October 1989. (Filed as Exhibit 10.1 to the Company's Form 10-K Report for the fiscal year ended 30 September 1989.)*   |
| 10.2               | Stock Option Program for Directors of the Company, formerly known as the Stock Option Plan for Directors. Effective 23 January 2003, this Plan was combined with the Long-Term Incentive Plan and offered as a program thereunder. (Filed as Exhibit 10.5 to the Company's Form 10-K Report for the fiscal year ended 30 September 2004.)* |
| 10.3               | Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Benefit Pension Plans dated as of 1 August 1999. (Filed as Exhibit 10.13 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*   |
| 10.3(a)            | Amendment No. 1 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Benefit Pension Plans, adopted 1 January 2000. (Filed as Exhibit 10.13(a) to the Company's Form 10-K Report for the fiscal year ended 30 September 2000.)*   |
| 10.3(b)            | Amendment No. 2 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Benefit Pension Plans, adopted 11 April 2007. (Filed as Exhibit 10.7(b) to the Company's Form 10-K Report for the fiscal year ended 30 September 2007.)*   |
| 10.4               | Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Supplementary Savings Plan dated as of 1 August 1999. (Filed as Exhibit 10.14 to the Company's Form 10-K Report for the fiscal year ended 30 September 1999.)*  |
| 10.4(a)            | Amendment No. 1 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Supplementary Savings Plan, adopted 1 January 2000. (Filed as Exhibit 10.14(a) to the Company's Form 10-K Report for the fiscal year ended 30 September 2000.)*  |

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- 10.4(b) Amendment No. 2 to the Amended and Restated Trust Agreement by and between the Company and PNC Bank, N.A. relating to the Defined Contribution Plans, adopted 11 April 2007. (Filed as Exhibit 10.8(b) to the Company's Form 10-K Report for the fiscal year ended 30 September 2007.)\*
- 10.5 Annual Incentive Plan as Amended and Restated Effective 1 October 2008. (Filed as Exhibit 10.7 to the Company's Form 10-Q Report for the quarter ended 31 March 2009.)\*
- 10.6 Stock Incentive Program of the Company effective 1 October 1996. (Filed as Exhibit 10.21 to the Company's Form 10-K Report for the fiscal year ended 30 September 2002.)\*
- 10.7 Amended and Restated Deferred Compensation Program for Directors, effective 1 October 2005. (Filed as Exhibit 10.26 to the Company's Form 10-K Report for the fiscal year ended 30 September 2005.)\*
- 10.8 Amended and Restated Long-Term Incentive Plan of the Company effective 28 January 2010. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 30 June 2010.)\*
- 10.8(a) Amendment to the Amended and Restated Long-Term Incentive Plan dated 15 July 2010. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report for the quarter ended 31 December 2010.)\*
- 10.8(b) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for the FY 2004 awards. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report for the quarter ended 31 December 2003.)\*
- 10.8(c) Form of Award Agreement under the Long-Term Incentive Plan of the Company used for the FY 2005 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2004.)\*
- 10.8(d) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY 2006 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2005.)\*
- 10.8(e) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY 2007 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2006.)\*
- 10.8(f) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY 2008 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2007.)\*
- 10.8(g) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY 2009 Awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2008.)\*
- 10.8(h) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY2010 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2009.)\*
- 10.8(i) Form of Award Agreement under the Long-Term Incentive Plan of the Company, used for FY2011 awards. (Filed as Exhibit 10.1 to the Company's Form 10-Q Report for the quarter ended 31 December 2010.)\*
- 10.9 Air Products and Chemicals, Inc. Retirement Savings Plan as amended and restated effective October 1, 2009 including amendments through September 30, 2010. (Filed as Exhibit 10.14 to the Company's Form 10-K Report for the fiscal year ended 30 September 2010.)\*
- 10.9(a) Amendment No. 1 to the Air Products and Chemicals, Inc. Retirement Savings Plan.
- 10.9(b) Amendment No. 2 to the Air Products and Chemicals, Inc. Retirement Savings Plan.
- 10.10 Supplementary Pension Plan of Air Products and Chemicals, Inc. as Amended and Restated Effective January 1, 2008. (Filed as Exhibit 10.2 to the Company's Form 10-Q Report for the quarter ended 31 March 2009.)\*

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- 10.10(a) Amendment No. 1 to the Supplementary Pension Plan of Air Products and Chemicals, Inc., as Amended and Restated Effective January 1, 2008. (Filed as Exhibit 10.3 to the Company s Form 10-Q Report for the quarter ended 31 March 2009.)\*
- 10.10(b) Amendment No. 2 to the Supplementary Pension Plan of Air Products and Chemicals, Inc., as Amended and Restated Effective January 1, 2008. (Filed as Exhibit 10.4 to the Company s Form 10-Q Report for the quarter ended 31 March 2009.)\*
- 10.10(c) Amendment No. 3 to the Supplementary Pension Plan of Air Products and Chemicals, Inc., as Amended and Restated Effective January 1, 2008. (Filed as Exhibit 10.5 to the Company s Form 10-Q Report for the quarter ended 31 March 2009.)\*
- 10.11 Deferred Compensation Plan as Amended and Restated January 1, 2009. (Filed as Exhibit 10.19 to the Company s Form 10-K Report for the fiscal year ended 30 September 2009.)\*
- 10.12 Amended and Restated Commitment Letter dated March 3, 2010 among Air Products and Chemicals, Inc., JPMorgan Chase Bank, N.A. and J.P. Morgan Securities Inc. (Filed as Exhibit 10.1 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.13 Accession Letter dated March 3, 2010 among Air Products and Chemicals, Inc., The Royal Bank of Scotland plc and RBS Securities Inc. (Filed as Exhibit 10.2 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.14 Accession Letter dated March 3, 2010 among Air Products and Chemicals, Inc., Deutsche Bank AG Cayman Island Branch and Deutsche Bank Securities Inc. (Filed as Exhibit 10.3 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.15 Accession Letter dated March 3, 2010 among Air Products and Chemicals, Inc., BNP Paribas and BNP Paribas Securities Corp. (Filed as Exhibit 10.4 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.16 Accession Letter dated March 3, 2010 among Air Products and Chemicals, Inc., HSBC Securities (USA) Inc. and HSBC Bank USA, N.A. (Filed as Exhibit 10.5 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.17 Accession Letter dated March 3, 2010 between Air Products and Chemicals, Inc. and The Bank of Tokyo-Mitsubishi UFJ, Ltd. (Filed as Exhibit 10.6 to Form 8-K filed on 5 March 2010 and incorporated herein by reference.)\*
- 10.18 Credit Agreement dated March 31, 2010 among Air Products and Chemicals, Inc., the lenders parties thereto and JPMorgan Chase Bank, N.A., as administrative agent. (Filed as Exhibit 10.7 to the Company s Form 10-Q Report for the quarter ended 31 March 2010.)\*
- 10.19 Revolving Credit Facility dated as of July 8, 2010 for \$2,000,000,000. (Filed as Exhibit 10.29 to the Company s Form 10-K Report for the fiscal year ended 30 September 2010.)\*
- 10.19(a) Amendment No. 2 dated as of 30 June 2011, to the Revolving Credit Agreement dated as of 8 July 2010, (Filed as Exhibit 10.1 to the Company s Form 10-Q Report for the quarter ended 30 June 2011.)\*
- 10.20 Air Products and Chemicals, Inc. Corporate Executive Committee Separation Program as amended effective as of 14 September 2011.
- 10.21 Form of Change in Control Severance Agreement for an Executive Officer.
- 10.22 Compensation Program for Directors effective 1 October 2011.
- 12 Computation of Ratios of Earnings to Fixed Charges.
- 14 Code of Conduct. (Filed as Exhibit 14 to the Company s Form 10-K Report for the fiscal year ended 30 September 2005.)\*
- 21 Subsidiaries of the registrant.
- (23) Consents of Experts and Counsel.
- 23.1 Consent of Independent Registered Public Accounting Firm.

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|         |   |
|---------|---|
| 24      | Power of Attorney.  |
| (31)    | Rule 13a-14(a)/15d-14(a) Certifications.  |
| 31.1    | Certification by the Principal Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| 31.2    | Certification by the Principal Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. |
| (32)    | Section 1350 Certifications.  |
| 32.1    | Certification by the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.                  |
| 101.INS | XBRL Instance Document  |
| 101.SCH | XBRL Taxonomy Extension Schema  |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase  |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase  |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase   |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase   |

\* Previously filed as indicated and incorporated herein by reference. Exhibits incorporated by reference are located in SEC File No. 1-4534.

The certification attached as Exhibit 32.1 that accompanies this Annual Report on Form 10-K, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Air Products and Chemicals, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Form 10-K, irrespective of any general incorporation language contained in such filing.

In accordance with Rule 402 of Regulation S-T, the information in these exhibits shall not be deemed to be filed for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and shall not be incorporated by reference into any registration statement or other document filed under the Securities Act, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.