PRAXAIR INC
Form 10-K
February 25, 2014
Table of Contents

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

FORM 10-K

þ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2013
OR
¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number 1-11037

Praxair, Inc.

Praxair, Inc.
39 Old Ridgebury Road
Danbury, Connecticut 06810-5113
Tel. (203) 837-2000

State of incorporation: Delaware
IRS identification number: 06-124 9050

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

Title of each class:	Registered on:
Common Stock ($0.01 par value)	New York Stock Exchange

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes þ 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 þ
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 þ 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 þ No ¨
Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. þ
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.
Large accelerated filer þ 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 þ

The aggregate market value of the voting and non-voting common stock held by non-affiliates as of June 30, 2013, was approximately $34 billion (based on the closing sale price of the stock on that date as reported on the New York Stock Exchange).

At January 31, 2014, 293,974,931 shares of common stock of Praxair, Inc. were outstanding.

Documents incorporated by reference:

Portions of the Proxy Statement of Praxair, Inc., for its 2014 Annual Meeting of Shareholders, are incorporated in Part III of this report.

Table of Contents

PRAXAIR, INC.
ANNUAL REPORT ON FORM 10-K
For the fiscal year ended December 31, 2013
TABLE OF CONTENTS

2

Table of Contents

Praxair, Inc. and Subsidiaries

PART I

ITEM 1. BUSINESS

General

Praxair, Inc. (Praxair or the company) was founded in 1907 and became an independent publicly traded company in 1992. Praxair was the first company in the United States to produce oxygen from air using a cryogenic process and continues to be a major technological innovator in the industrial gases industry.

Praxair is the largest industrial gas supplier in North and South America, is rapidly growing in Asia, and has strong, well-established businesses in Europe. Praxair's primary products in its industrial gases business are atmospheric gases (oxygen, nitrogen, argon, rare gases) and process gases (carbon dioxide, helium, hydrogen, electronic gases, specialty gases, acetylene). The company also designs, engineers, and builds equipment that produces industrial gases primarily for internal use. The company's surface technologies segment, operated through Praxair Surface Technologies, Inc., supplies wear-resistant and high-temperature corrosion-resistant metallic and ceramic coatings and powders. Praxair's sales were $11,925 million, $11,224 million, and $11,252 million for 2013, 2012, and 2011, respectively. Refer to Note 18 to the consolidated financial statements for additional information related to Praxair's reportable segments.

Praxair serves approximately 25 industries as diverse as healthcare, petroleum refining, computer-chip manufacturing, beverage carbonation, fiber-optics, steel making, aerospace, chemicals and water treatment. In 2013, 95% of sales were generated in four geographic segments (North America, Europe, South America and Asia) primarily from the sale of industrial gases, with the balance generated from the surface technologies segment. Praxair provides a competitive advantage to its customers by continuously developing new products and applications, which allow them to improve their productivity, energy efficiency and environmental performance.

Industrial Gases Products and Manufacturing Processes

Atmospheric gases are the highest volume products produced by Praxair. Using air as its raw material, Praxair produces oxygen, nitrogen and argon through several air separation processes of which cryogenic air separation is the most prevalent. As a pioneer in the industrial gases industry, Praxair is a leader in developing a wide range of proprietary and patented applications and supply systems technology. Praxair also led the development and commercialization of non-cryogenic air separation technologies for the production of industrial gases. These technologies open important new markets and optimize production capacity for the company by lowering the cost of supplying industrial gases. These technologies include proprietary vacuum pressure swing adsorption ("VPSA") and membrane separation to produce gaseous oxygen and nitrogen, respectively. Praxair also manufactures precious metal and ceramic sputtering targets used primarily in the production of semiconductors.

Process gases, including carbon dioxide, hydrogen, carbon monoxide, helium, specialty gases and acetylene are produced by methods other than air separation. Most carbon dioxide is purchased from by-product sources, including chemical plants, refineries and industrial processes and is recovered from carbon dioxide wells. Carbon dioxide is processed in Praxair's plants to produce commercial and food-grade carbon dioxide. Hydrogen and carbon monoxide are produced by either steam methane reforming of natural gas or by purifying by-product sources obtained from the chemical and petrochemical industries. Most of the helium sold by Praxair is sourced from certain helium-rich natural gas streams in the United States, with additional supplies being acquired from outside the United States. Acetylene can be produced from calcium carbide and water. Praxair purchases a significant percentage as a chemical by-product.

Industrial Gases Distribution

There are three basic distribution methods for industrial gases: (i) on-site or tonnage; (ii) merchant or bulk liquid; and (iii) packaged or cylinder gases. These distribution methods are often integrated, with products from all three supply modes coming from the same plant. The method of supply is generally determined by the lowest cost means of meeting the customer's needs, depending upon factors such as volume requirements, purity, pattern of usage, and the form in which the product is used (as a gas or as a cryogenic liquid). Additionally, Praxair provides a number of services, such as maintenance of equipment, which are ancillary to the process of supplying product to customers.

On-site. Customers that require the largest volumes of product (typically oxygen, nitrogen and hydrogen) and that have a relatively constant demand pattern are supplied by cryogenic and process gas on-site plants. Praxair constructs plants on or adjacent to these customers' sites and supplies the product directly to customers by pipeline. On-site product supply contracts generally are total requirement contracts with terms typically ranging from 10-20 years and containing minimum purchase requirements and price escalation provisions. Many of the cryogenic on-site plants also produce liquid products for the merchant market. Therefore, plants are typically not dedicated to a single customer. Advanced air

Table of Contents

separation processes allow on-site delivery to customers with smaller volume requirements. Customers using these systems usually enter into requirement contracts with terms typically ranging from 5-15 years.

Merchant. The merchant business is generally associated with distributable liquid oxygen, nitrogen, argon, carbon dioxide, hydrogen and helium. The deliveries generally are made from Praxair's plants by tanker trucks to storage containers at the customer's site which are owned and maintained by Praxair and leased to the customer. Due to distribution cost, merchant oxygen and nitrogen generally have a relatively small distribution radius from the plants at which they are produced. Merchant argon, hydrogen and helium can be shipped much longer distances. The customer agreements used in the merchant business are usually three-to five-year requirement contracts.

Packaged Gases. Customers requiring small volumes are supplied products in metal containers called cylinders, under medium to high pressure. Packaged gases include atmospheric gases, carbon dioxide, hydrogen, helium, acetylene and related. Praxair also produces and distributes in cylinders a wide range of specialty gases and mixtures. Cylinders may be delivered to the customer's site or picked up by the customer at a packaging facility or retail store. Packaged gases are generally sold under one to three-year supply contracts and through purchase orders.

A substantial amount of the cylinder gases sold in the United States is distributed by independent distributors that buy merchant gases in liquid form and repackage the products in their facilities. Packaged gas distributors, including Praxair, also distribute hardgoods and welding equipment purchased from independent manufacturers. Over time, Praxair has acquired a number of independent industrial gases and welding products distributors at various locations in the United States and continues to sell merchant gases to other independent distributors. Between its own distribution business, joint ventures and sales to independent distributors, Praxair is represented in 48 states, the District of Columbia and Puerto Rico.

Surface Technologies

Praxair Surface Technologies is a leading worldwide supplier of coatings services and thermal spray consumables to customers in the aircraft, energy, printing, primary metals, petrochemical, textile, and other industries. Its coatings are used to provide wear resistance, corrosion protection, thermal insulation, and many other surface-enhancing functions which serve to extend component life, enable optimal performance, and reduce operating costs. It also manufactures a complete line of electric arc, plasma and wire spray, and high-velocity oxy-fuel ("HVOF") equipment.

Inventories – Praxair carries inventories of merchant and cylinder gases, hardgoods and coatings materials to supply products to its customers on a reasonable delivery schedule. On-site plants and pipeline complexes have limited inventory. Inventory obsolescence is not material to Praxair's business.

Customers – Praxair is not dependent upon a single customer or a few customers.

International – Praxair is a global enterprise with approximately 60% of its 2013 sales outside of the United States. It conducts industrial gases business through consolidated companies in Argentina, Bahrain, Belgium, Bolivia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Denmark, Dominican Republic, France, Germany, Ghana, India, Italy, Japan, Mexico, the Netherlands, Norway, Paraguay, Peru, Portugal, Puerto Rico, Russia, South Korea, Spain, Sweden, Taiwan, Thailand, United Arab Emirates, the United Kingdom, Uruguay and Venezuela. Societa Italiana Acetilene & Derivati S.p.A. ("S.I.A.D."), an Italian company accounted for as an equity company, also has established positions in Austria, Bosnia, Bulgaria, Croatia, the Czech Republic, Hungary, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine. Refrigeration and Oxygen Company Limited ("ROC"), a Middle Eastern company accounted for as an equity company, has operations in the United Arab Emirates, Kuwait and Qatar. Praxair's surface technologies segment has operations in Brazil, Canada, China, France, Germany, India, Italy, Japan, Singapore, South Korea and the United Kingdom.

Praxair's international business is subject to risks customarily encountered in foreign operations, including fluctuations in foreign currency exchange rates, import and export controls, and other economic, political and regulatory policies of local governments. Also, see Item 1A. "Risk Factors" and Item 7A. "Quantitative and Qualitative Disclosures About Market Risk."

Seasonality – Praxair's business is generally not subject to seasonal fluctuations to any significant extent.

Research and Development – Praxair's research and development is directed toward developing new and improved methods for the production and distribution of industrial gases and the development of new markets and applications for these gases. This results in the development of new advanced air separation and hydrogen process technologies and the frequent introduction of new industrial gas applications. Research and development for industrial gases is principally conducted at Tonawanda, New York; Burr Ridge, Illinois; Shanghai, China; and Bangalore, India. Praxair conducts research and development for its surface technologies to improve the quality and durability of coatings and the use of specialty powders for new applications and industries. Surface technologies research is conducted at Indianapolis, Indiana.

4

Table of Contents

Patents and Trademarks – Praxair owns or licenses a large number of United States and foreign patents that relate to a wide variety of products and processes. Praxair's patents expire at various times over the next 20 years. While these patents and licenses are considered important to our individual businesses, Praxair does not consider its business as a whole to be materially dependent upon any one particular patent, or patent license, or family of patents. Praxair also owns a large number of valuable trademarks. Only the "Praxair" trademark is important to our business as a whole.

Raw Materials and Energy Costs – Energy is the single largest cost item in the production and distribution of industrial gases. Most of Praxair's energy requirements are in the form of electricity, natural gas and diesel fuel for distribution. The supply of energy has not been a significant issue in the geographic areas where the company conducts business. However, energy availability and price is unpredictable and may pose unforeseen future risks.

For carbon dioxide, carbon monoxide, helium, hydrogen, specialty gases and surface technologies, raw materials are largely purchased from outside sources. Praxair has contracts or commitments for, or readily available sources of, most of these raw materials; however, their long-term availability and prices are subject to market conditions.

Competition – Praxair operates within a highly competitive environment. Some of its competitors are larger in size and capital base than Praxair. Competition is based on price, product quality, delivery, reliability, technology and service to customers.

Major competitors in the industrial gases industry both in the United States and worldwide include Air Products and Chemicals, Inc., Airgas Inc., L'Air Liquide S.A., and Linde AG. Principal competitors for the surface businesses are Chromalloy Gas Turbine Corporation, a subsidiary of Sequa Corporation, Bodycote, PLC, and Sulzer Ltd. There are other surface coating competitors that compete on a local geography basis.

Employees and Labor Relations – As of December 31, 2013, Praxair had 27,560 employees worldwide. Of this number, 10,298 are employed in the United States. Praxair has collective bargaining agreements with unions at numerous locations throughout the world, which expire at various dates. Praxair considers relations with its employees to be good.

Environment – Information required by this item is incorporated herein by reference to the section captioned "Management's Discussion and Analysis – Environmental Matters" in Item 7 of this 10-K.

Available Information – The company makes its periodic and current reports available, free of charge, on or through its website, www.praxair.com, as soon as practicable after such material is electronically filed with, or furnished to, the Securities and Exchange Commission ("SEC"). Investors may also access from the company website other investor information such as press releases and presentations. Information on the company's website is not incorporated by reference herein.

In addition, the public may read and copy any materials filed with the SEC at the SEC's Public Reference Room located at 100 F Street NE, Washington, D.C. 20549. The public may also obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website, www.sec.gov, that contains reports, proxy information statements and other information regarding issuers that file electronically.

Executive Officers – The following Executive Officers have been elected by the Board of Directors and serve at the pleasure of the Board. It is expected that the Board will elect officers annually following each annual meeting of shareholders.

Stephen F. Angel, 58, is Chairman and Chief Executive Officer of Praxair, Inc. since 2007. Before this, Mr. Angel served as President & Chief Operating Officer from March to December 2006, and as Executive Vice President from 2001 to March 2006. Prior to joining Praxair in 2001, Mr. Angel spent 22 years in a variety of management positions with General Electric. Mr. Angel is a director of PPG Industries, Inc., (where he serves on the Compensation Committee, and the Technology and Environment Committee). He is also a member of The Business Council and the U.S. - Brazil CEO Forum and is a former director of the American Chemistry Council and the U.S. - China Business Council.

James T. Breedlove, 66, is Senior Vice President, General Counsel and Secretary of Praxair, Inc. and served as Vice President, General Counsel and Secretary from 2004 to 2006. Prior to joining Praxair in 2004, Mr. Breedlove was Senior Vice President and General Counsel at GE Equipment Services from 2002, and from 1992 to 2002 he served as a Senior Vice President of a division of General Electric Capital Corp.

Elizabeth T. Hirsch, 60, is Vice President and Controller of Praxair, Inc. since December 2010. Prior to becoming Controller, she served as Praxair's Director of Investor Relations since 2002 and as Vice President of Investor Relations since October 2010. She joined Praxair in 1995 as Director of Corporate Finance and later served as Assistant Treasurer. Previously, she had fifteen years of experience in corporate banking, primarily at Manufacturers Hanover Trust Company.

Table of Contents

Eduardo F. Menezes, 50, was promoted to Executive Vice President from Senior Vice President in 2012. He oversees Praxair's businesses in Europe, Mexico, and South America. From 2010 to March 2011, he was a Vice President of Praxair with responsibility for the North American Industrial Gases business. From 2007 to 2010, he was President of Praxair Europe. He served as Managing Director of Praxair's business in Mexico from 2004 to 2007, as Vice President and General Manager for Praxair Distribution, Inc. from 2003 to 2004 and as Vice President, U.S. West Region, for North American Industrial Gases, from 2000 to 2003.

Anne K. Roby, 49, was appointed Senior Vice President effective January 1, 2014. She is responsible for Global Supply Systems, Research & Development, Global Market Development, Global Operations Excellence, Global Procurement, Sustainability and Safety, Health and Environment. From 2011-2013, she served as President Praxair Asia, responsible for Praxair's industrial gases business in China, India, South Korea and Thailand as well as the electronics market globally. In 2010, Ms. Roby became President of Praxair Electronics, after having served as Vice President, Global Sales, for Praxair from 2009 - 2010. Prior to this, she was Vice President of the U.S. South Region from 2006 - 2009. Ms. Roby joined Praxair in 1991 as a development associate in the Company's R&D organization and was promoted to other positions of increasing responsibility.

Sally A. Savoia, 58, is Vice President, Human Resources of Praxair since 2002. She joined Praxair in 1981, holding positions in marketing, operations and quality before being named business manager, merchant gases, North America, in 1989. In 1993, she was named associate director, Investor Relations, and the following year became director of Praxair's worldwide re-engineering and quality programs. She was named vice president and general manager, Helium and Rare gases, in 1996 and became vice president, Healthcare, in 1998.

Scott E. Telesz, 46, was promoted to Executive Vice President from Senior Vice President in 2012. He is responsible for Praxair's U.S. atmospheric gases businesses, Praxair Canada and Praxair Surface Technologies. Before joining Praxair in 2010, he was a Vice President from 2007 to 2010 of SABIC Innovative Plastics, a major division of Riyadh-based Saudi Basic Industries Corporation, a global manufacturer of chemicals, fertilizers, plastics and metals. From 1998 to 2007, he held a variety of general management positions with General Electric, and from 1989 to 1998, Mr. Telesz held several positions, including Engagement Manager in the United States and Australia, with McKinsey & Company.

Matthew J. White, 41, was appointed Senior Vice President and Chief Financial Officer effective January 1, 2014. From 2011 through 2013 he was President of Praxair Canada. Mr. White joined Praxair in 2004 as finance director of Praxair's largest business unit, North American Industrial Gases. In 2008, he became Vice President and Controller of Praxair, Inc. , and then was named Vice President and Treasurer in 2010. Before joining Praxair, he was vice president finance, at Fisher Scientific and before that held various financial positions, including group controller, at GenTek, a manufacturing and performance chemicals company.

ITEM 1A. RISK FACTORS

Due to the size and geographic reach of the company's operations, a wide range of factors, many of which are outside of the company's control, could materially affect the company's future operations and financial performance. Management believes the following risks may significantly impact the company:

General Economic Conditions – Weakening economic conditions in markets in which the company does business may adversely impact the company's financial results and/or cash flows.

Praxair serves approximately 25 diverse industries across more than 50 countries, which generally leads to financial stability through various business cycles. However, a broad decline in general economic or business conditions in the industries served by its customers could adversely affect the demand for Praxair's products and impair the ability of our customers to satisfy their obligations to the company, resulting in uncollected receivables and/or unanticipated contract terminations or project delays. In addition, many of the company's customers are in businesses that are cyclical in nature, such as the chemicals, electronics, metals and refining industries. Downturns in these industries may adversely impact the company during these cycles. Additionally, such conditions could impact the utilization of the company's manufacturing capacity which may require the company to recognize impairment losses on tangible assets such as property, plant and equipment as well as intangible assets such as intellectual property or goodwill.

Cost and Availability of Raw Materials and Energy – Increases in the cost of energy and raw materials and/or disruption in the supply of these materials could result in lost sales or reduced profitability.

Energy is the single largest cost item in the production and distribution of industrial gases. Most of Praxair's energy requirements are in the form of electricity, natural gas and diesel fuel for distribution. Praxair attempts to minimize the financial impact of variability in these costs through the management of customer contracts and energy efficiency

6

Table of Contents

initiatives. Large customer contracts typically have escalation and pass-through clauses to recover energy and feedstock costs. Such attempts may not successfully mitigate cost variability which could negatively impact its financial condition or results of operations. The supply of energy has not been a significant issue in the geographic areas where Praxair conducts business. However, regional energy conditions are unpredictable and may pose future risk.

For carbon dioxide, carbon monoxide, helium, hydrogen, specialty gases and surface technologies, raw materials are largely purchased from outside sources. Praxair has contracts or commitments for, or readily available sources of, most of these raw materials; however, their long-term availability and prices are subject to market conditions. A disruption in supply of such raw materials could impact the company's ability to meet contractual supply commitments.

International Events and Circumstances – The company's international operations are subject to the risks of doing business abroad and international events and circumstances may adversely impact its business, financial condition or results of operations.

Praxair has substantial international operations which are subject to risks including devaluations in currency exchange rates, transportation delays and interruptions, political and economic instability and disruptions, restrictions on the transfer of funds, the imposition of duties and tariffs, import and export controls, changes in governmental policies, labor unrest, possible nationalization and/or expropriation of assets, domestic and international tax laws and compliance with governmental regulations. These events could have an adverse effect on the international operations in the future by reducing the demand for its products, decreasing the prices at which it can sell its products, reducing the U.S. dollar value of revenue from international operations or otherwise having an adverse effect on its business. In particular, due to government actions related to business and currency regulations, there is considerable risk associated with operations in Venezuela (see Note 2 to the consolidated financial statements). At December 31, 2013, Praxair's sales and net assets in Venezuela were less than 1% of Praxair's consolidated amounts. Also, the Company is monitoring developments regarding the collectability of government receivables from healthcare sales to public hospitals in Spain and Italy where economic conditions have been challenging and uncertain. Historically, collection of such government receivables has extended well beyond the contractual terms of sale; however, payment has always been received. At December 31, 2013, government receivables in Spain and Italy totaled about $82 million.

Global Financial Markets Conditions – Macroeconomic factors may impact the company's ability to obtain financing or increase the cost of obtaining financing which may adversely impact the company's financial results and/or cash flows.

Volatility and disruption in the U.S. and global credit and equity markets, from time to time, could make it more difficult for Praxair to obtain financing for its operations and/or could increase the cost of obtaining financing. In addition, the company's borrowing costs can be affected by short and long-term debt ratings assigned by independent rating agencies which are based, in significant part, on the company's performance as measured by certain criteria such as interest coverage and leverage ratios. A decrease in these debt ratings could increase the cost of borrowing or make it more difficult to obtain financing. While the impact of volatility in the global credit markets cannot be predicted with certainty, the company believes that it has sufficient operating flexibility, cash reserves, and funding sources to maintain adequate amounts of liquidity to meet its business needs around the world.

Competitor Actions – The inability to effectively compete could adversely impact results of operations.

Praxair operates within a highly competitive environment worldwide. Competition is based on price, product quality, delivery, reliability, technology and service to customers. Competitors' behavior related to these areas could potentially have significant impacts on the company's financial results.

Governmental Regulations – The company is subject to a variety of United States and foreign government regulations. Changes in these regulations could have an adverse impact on the business, financial position and results of operations.

The company is subject to regulations in the following areas, among others:

- Environmental protection;
- Domestic and international tax laws and currency controls;
- Safety;
- Securities laws (e.g., SEC and generally accepted accounting principles in the United States);

- Trade and import/ export restrictions;
- Antitrust matters;
- Global anti-bribery laws;

Table of Contents

- Healthcare reimbursement regulations; and
- Conflict minerals

Changes in these or other regulatory areas may impact the company's profitability, may require the company to spend additional resources to comply with the regulations, or may restrict the company's ability to compete effectively in the marketplace. Noncompliance with such laws and regulations could result in penalties or sanctions that could have an adverse impact on the company's financial results. Environmental protection is discussed further below.

Praxair is subject to various environmental and occupational health and safety laws and regulations, including those governing the discharge of pollutants into the air or water, the storage, handling and disposal of chemicals, hazardous substances and wastes, the remediation of contamination, the regulation of greenhouse gas emissions, and other potential climate change initiatives. Violations of these laws could result in substantial penalties, third party claims for property damage or personal injury, or sanctions. The company may also be subject to liability for the investigation and remediation of environmental contamination at properties that it owns or operates and at other properties where Praxair or its predecessors have operated or arranged for the disposal of hazardous wastes. Although management does not believe that any such liabilities will have a material adverse impact on its financial position and results of operations, management cannot provide assurance that such costs will not increase in the future or will not become material. See the section captioned "Management's Discussion and Analysis – Environmental Matters" in Item 7 of this Form 10-K.

Catastrophic Events – Catastrophic events could disrupt the operations of the company and/or its customers and suppliers and may have a significant adverse impact on the results of operations.

The occurrence of catastrophic events or natural disasters such as extreme weather, hurricanes, floods, health epidemics, acts of war or terrorism, could disrupt or delay the company's ability to produce and distribute its products to customers and could potentially expose the company to third-party liability claims. In addition, such events could impact the company's customers and suppliers resulting in temporary or long-term outages and/or the limitation of supply of energy and other raw materials used in normal business operations. These situations are outside the company's control and may have a significant adverse impact on the company's financial results.

Retaining Qualified Personnel – The inability to attract and retain qualified personnel may adversely impact the company's business.

If Praxair fails to attract, hire and retain qualified personnel, the company may not be able to develop, market or sell its products or successfully manage its business. Praxair is dependent upon its highly skilled, experienced and efficient workforce to be successful. Much of Praxair's competitive advantage is based on the expertise and experience of its key personnel regarding its marketing, technology, manufacturing and distribution infrastructure, systems and products. The inability to attract and hire qualified individuals or the loss of key employees in very skilled areas could have a negative effect on the company's financial results.

Technological Advances – If the company fails to keep pace with technological advances in the industry or if new technology initiatives do not become commercially accepted, customers may not continue to buy the company's products and results of operations could be adversely affected.

Praxair's research and development is directed toward developing new and improved methods for the production and distribution of industrial gases and the development of new markets and applications for the use of these gases. This results in the frequent introduction of new industrial gas applications and the development of new advanced air separation process technologies. The company also conducts research and development for its surface technologies to improve the quality and durability of coatings and the use of specialty powders for new applications and industries. As a result of these efforts, the company develops new and proprietary technologies and employs necessary measures to protect such technologies within the global geographies in which the company operates. These technologies help Praxair to create a competitive advantage and to provide a platform for the company to grow its business. If Praxair's research and development activities do not keep pace with competitors or if it does not create new technologies that benefit customers, future results of operations could be adversely affected.

Litigation and Governmental Investigations – The outcomes of litigation and governmental investigations may affect the company's financial results.

Praxair is subject to various lawsuits and governmental investigations arising out of the normal course of business that may result in adverse outcomes. These actions are based upon alleged environmental, tax, antitrust and personal injury claims, among others. Adverse outcomes in some or all of the claims pending may result in significant monetary damages or injunctive relief that could adversely affect its ability to conduct business. While management currently believes that resolving all of these matters, individually or in the aggregate, will not have a material adverse impact on the company's

Table of Contents

financial position or liquidity, the litigation and other claims Praxair faces are subject to inherent uncertainties and management's view of these matters may change in the future. There exists the possibility of a material adverse impact on the company's results of operations for the period in which the effect of an unfavorable final outcome becomes probable and reasonably estimable.

Tax Liabilities – Potential tax liabilities could adversely impact the company's financial position and results of operations.

Praxair is subject to income and other taxes in both the United States and numerous foreign jurisdictions. The determination of the company's worldwide provision for income taxes and other tax liabilities requires judgment and is based on diverse legislative and regulatory structures that exist in the various jurisdictions where the company operates. Although management believes its estimates are reasonable, the ultimate tax outcome may differ from the amounts recorded in its financial statements and may materially affect the company's financial results for the period when such determination is made. See Notes 5 and 17 to the consolidated financial statements of this Form 10-K.

Pension Liabilities – Risks related to our pension benefit plans may adversely impact our results of operations and cash flows.

Pension benefits represent significant financial obligations that will be ultimately settled in the future with employees who meet eligibility requirements. Because of the uncertainties involved in estimating the timing and amount of future payments and asset returns, significant estimates are required to calculate pension expense and liabilities related to the company's plans. The company utilizes the services of independent actuaries, whose models are used to facilitate these calculations. Several key assumptions are used in the actuarial models to calculate pension expense and liability amounts recorded in the consolidated financial statements. In particular, significant changes in actual investment returns on pension assets, discount rates, or legislative or regulatory changes could impact future results of operations and required pension contributions. For information regarding the potential impacts regarding significant assumptions used to estimate pension expense, including discount rates and the expected long-term rates of return on plan assets. See "Critical Accounting Policies – Pension Benefits" included in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Item 7 of this Form 10-K.

Operational Risks – Operational risks may adversely impact the company's business or results of operations.

Praxair's operating results are dependent on the continued operation of its production facilities and its ability to meet customer contract requirements and other needs. Insufficient or excess capacity threatens the company's ability to generate competitive profit margins and 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 business to loss of revenue, potential litigation and loss of business reputation.

Also inherent in the management of the company's production facilities and delivery systems, including storage, vehicle transportation and pipelines, are operational risks that require continuous training, oversight and control. Material operating failures at production, storage facilities or pipelines, including fire, toxic release and explosions, or the occurrence of vehicle transportation accidents could result in loss of life, damage to the environment, loss of production and/or extensive property damage, all of which may negatively impact the company's financial results.

Information Technology Systems – The Company may be subject to information technology system ("IT") failures, network disruptions and breaches in data security.

Praxair relies on IT systems and networks for business and operational activities, and also stores and processes sensitive business and proprietary information in these systems and networks. These systems are susceptible to outages due to fire, flood, power loss, telecommunications failures, viruses, break-ins and similar events, or breaches of security. Management has taken steps to address these risks and concerns by implementing advanced security technologies, internal controls, network and data center resiliency and recovery process. Despite these steps, however, operational failures and breaches of security from increasingly sophisticated cyber threats could lead to the loss or disclosure of confidential information, result in regulatory actions and have a material adverse impact on Praxair's operations, reputation and financial results.

Acquisitions and Joint Ventures – The inability to effectively integrate acquisitions or collaborate with joint venture partners could adversely impact the company's financial position and results of operations.

Praxair has evaluated, and expects to continue to evaluate, a wide array of potential strategic acquisitions and joint ventures. Many of these transactions, if consummated, could be material to its financial condition and results of operations. In addition, the process of integrating an acquired company, business or group of assets may create unforeseen operating

9

Table of Contents

difficulties and expenditures. Although historically the company has been successful with its acquisition strategy and execution, the areas where the company may face risks include:

- The need to implement or remediate controls, procedures and policies appropriate for a larger public company at companies that prior to the acquisition lacked these controls, procedures and policies;
- Diversion of management time and focus from operating existing business to acquisition integration challenges;
- Cultural challenges associated with integrating employees from the acquired company into the existing organization;
- The need to integrate each company's accounting, management information, human resource and other administrative systems to permit effective management;
- Difficulty with the assimilation of acquired operations and products;
- Failure to achieve targeted synergies; and
- Inability to retain key employees and business relationships of acquired companies.

Foreign acquisitions and joint ventures involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries. Also, the anticipated benefit of the company's acquisitions may not materialize. Future acquisitions or dispositions could result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities or amortization expenses, or impairments of goodwill, any of which could adversely impact the company's financial results.

ITEM 1B. UNRESOLVED STAFF COMMENTS

Praxair has received no written SEC staff comments regarding any of its Exchange Act reports which remain unresolved.

ITEM 2. PROPERTIES

Praxair's worldwide headquarters are located in leased office space in Danbury, Connecticut. Other principal administrative offices are owned in Tonawanda, New York, and leased in Rio de Janeiro, Brazil; Shanghai, China and Madrid, Spain.

Praxair designs, engineers, manufactures and operates facilities that produce and distribute industrial gases. These industrial gas production facilities and certain components are designed and/or manufactured at its facilities in Tonawanda, New York; Burr Ridge, Illinois; Rio de Janeiro, Brazil; Monterrey, Mexico; Shanghai, China; and Bangalore, India. Praxair's Italian equity affiliate, S.I.A.D., also has such capacity.

Due to the nature of Praxair's industrial gas products, it is generally uneconomical to transport them distances greater than a few hundred miles from the production facility. As a result, Praxair operates a significant number of production facilities spread globally throughout a number of geographic regions.

The following is a description of production facilities for Praxair by segment. No significant portion of these assets was leased at December 31, 2013. Generally, these facilities are fully utilized and are sufficient to meet our manufacturing needs.

North America

The North America segment operates production facilities in the U.S., Canada and Mexico, approximately 245 of which are cryogenic air separation plants, hydrogen plants and carbon dioxide plants. There are five major pipeline complexes in North America located in Northern Indiana, Houston, along the Gulf Coast of Texas, Detroit and Louisiana. Also located throughout North America are packaged gas facilities, specialty gas plants, helium plants and other smaller plant facilities.

Europe

The Europe segment has production facilities primarily in Italy, Spain, Germany, the Benelux region, France, Scandinavia and Russia which include more than 60 cryogenic air separation plants. There are three major pipeline complexes in Europe located in Northern Spain and the Rhine and Saar regions of Germany. These pipeline complexes are primarily supplied by cryogenic air separation plants. Also located throughout Europe are specialty gas plants, packaged gas facilities and other smaller plant facilities.

Table of Contents

South America

The South America segment operates more than 50 cryogenic air separation plants, primarily located in Brazil. Many of these plants support a major pipeline complex in Southern Brazil. Also located throughout South America are carbon dioxide plants, packaged gas facilities and other smaller plant facilities.

Asia

The Asia segment has production facilities located primarily in China, Korea, India and Thailand, approximately 40 of which are cryogenic air separation plants. Also located throughout Asia are noncryogenic air separation, carbon dioxide, hydrogen, packaged gas and other production facilities.

Surface Technologies

The surface technologies segment provides coating services and manufactures coating equipment at approximately 40 sites. The majority of these sites are located in the United States and Europe, with smaller operations in Asia, Brazil, India and headquarters located in Indianapolis, Indiana.

ITEM 3. LEGAL PROCEEDINGS

Information required by this item is incorporated herein by reference to the section captioned “Notes to Consolidated Financial Statements – 17 Commitments and Contingencies” in Item 8 of this 10-K.

ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable

Table of Contents

PART II

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

The principal market for the company's common stock (ticker symbol: PX) is the New York Stock Exchange ("NYSE"). At December 31, 2013 there were 13,964 shareholders of record.

NYSE quarterly stock price and dividend information

Market Price	Trading High	Trading Low	Close	Dividend Per Share
2013				
First Quarter	$114.64	$109.08	$111.54	$0.60
Second Quarter	$120.16	$107.69	$115.16	$0.60
Third Quarter	$124.41	$113.20	$120.21	$0.60
Fourth Quarter	$130.58	$117.54	$130.03	$0.60
2012				
First Quarter	$114.89	$103.54	$114.64	$0.55
Second Quarter	$116.92	$101.93	$108.73	$0.55
Third Quarter	$110.27	$102.00	$103.88	$0.55
Fourth Quarter	$110.91	$102.84	$109.45	$0.55

Praxair's annual dividend on its common stock for 2013 was $2.40 per share. On January 28, 2014, Praxair's Board of Directors declared a dividend of $0.65 per share for the first quarter of 2014, or $2.60 per share annualized, which may be changed as Praxair's earnings and business prospects warrant. The declaration of dividends is a business decision made by the Board of Directors based on Praxair's earnings and financial condition and other factors the Board of Directors considers relevant.

Purchases of Equity Securities – Certain information regarding purchases made by or on behalf of the company or any affiliated purchaser (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended) of its common stock during the three months ended December 31, 2013 is provided below:

Period	Total Number of Shares Purchased (Thousands)	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Program (1) (Thousands)	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (2) (Millions)
October 2013	207	$121.91	207	$ 507
November 2013	411	$125.10	411	$ 456
December 2013	393	$123.98	393	$ 407
Fourth Quarter 2013	1,011	$124.01	1,011	$ 407

(1) On January 24, 2012, the Company's board of directors approved the repurchase of $1.5 billion of its common stock ("2012 program") which could take place from time to time on the open market (which could include the use of 10b5-1 trading plans) or through negotiated transactions, subject to market and business conditions. The 2012 program does not have any stated expiration date. As of December 31, 2013, the Company had purchased $1,093 million of its common stock pursuant to the 2012 program, leaving an additional $407 million remaining authorized under the 2012 program.

(2) On January 28, 2014, the Company's board of directors approved the repurchase of $1.5 billion of its common stock ("2014 program") which could take place from time to time on the open market (which could include the use of 10b5-1 trading plans) or through negotiated transactions, subject to market and business conditions. The 2014 program does not have any stated expiration date. The 2014 program is in addition to the 2012 program.

Table of Contents

Peer Performance Table – The graph below compares the most recent five-year cumulative returns of Praxair's common stock with those of the Standard & Poor's 500 Index ("SPX") and the S5 Materials Index ("S5MATR") which covers 30 companies, including Praxair. The figures assume an initial investment of $100 on December 31, 2008 and that all dividends have been reinvested.

	2008	2009	2010	2011	2012	2013
PX	$100	$138	$168	$192	$201	$243
SPX	$100	$126	$146	$149	$172	$228
S5MATR	$100	$149	$182	$164	$189	$238

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA
FIVE-YEAR FINANCIAL SUMMARY
(Dollar amounts in millions, except per share data)

Year Ended December 31,	2013(a)	2012(a)	2011(a)	2010(a)	2009(a)
From the Consolidated Statements of Income					
Sales	$11,925	$11,224	$11,252	$10,116	$8,956
Cost of sales, exclusive of depreciation and amortization	6,744	6,396	6,458	5,754	5,032
Selling, general and administrative	1,349	1,270	1,239	1,196	1,088
Depreciation and amortization	1,109	1,001	1,003	925	846
Research and development	98	98	90	79	74
Venezuela currency devaluation and other charges – net	32	65	1	85	306
Other income (expenses) – net	32	43	7	5	(35)
Operating profit	2,625	2,437	2,468	2,082	1,575
Interest expense – net	178	141	145	118	133
Income before income taxes and equity investments	2,447	2,296	2,323	1,964	1,442
Income taxes	649	586	641	768	169
Income before equity investments	1,798	1,710	1,682	1,196	1,273
Income from equity investments	38	34	40	38	24
Net income (including noncontrolling interests)	1,836	1,744	1,722	1,234	1,297
Noncontrolling interests	(81)	(52)	(50)	(39)	(43)
Net income – Praxair, Inc.	$1,755	$1,692	$1,672	$1,195	$1,254
Per Share Data – Praxair, Inc. Shareholders					
Basic earnings per share	$5.94	$5.67	$5.53	$3.90	$4.08
Diluted earnings per share	$5.87	$5.61	$5.45	$3.84	$4.01
Cash dividends per share	$2.40	$2.20	$2.00	$1.80	$1.60
Weighted Average Shares Outstanding (000’s)					
Basic shares outstanding	295,523	298,316	302,237	306,720	307,676
Diluted shares outstanding	298,965	301,845	306,722	311,395	312,382
Other Information and Ratios					
Total assets	$20,255	$18,090	$16,356	$15,274	$14,317
Total debt	$8,811	$7,362	$6,562	$5,557	$5,055
Cash flow from operations	$2,917	$2,752	$2,455	$1,905	$2,168
Capital expenditures	$2,020	$2,180	$1,797	$1,388	$1,352
Acquisitions, net of cash acquired	$1,323	$280	$294	$148	$131
After-tax return on capital (b)	12.8 %	13.9 %	14.8 %	14.5 %	13.9 %
Return on equity (b)	28.6 %	28.9 %	28.1 %	26.4 %	27.0 %
Debt-to-capital ratio (b)	54.3 %	51.9 %	51.8 %	47.3 %	47.0 %
Debt-to-adjusted EBITDA (b)	2.2	1.9	1.7	1.6	1.8
Shares outstanding (000’s)	294,134	296,229	298,530	303,997	306,478
Number of employees	27,560	26,539	26,184	26,261	26,164

(a) Amounts for 2013 include: (i) a pre-tax charge of $23 million ($23 million after-tax) related to the Venezuela currency devaluation; (ii) a pre-tax charge of $9 million ($6 million after-tax) related to pension settlements; (iii) an income tax benefit of $40 million ($24 million net of noncontrolling interests) related to a realignment of the Italian legal structure; and (iv) a pre-tax charge of $18 million ($12 million after-tax) related to a bond redemption .

Amounts for 2012 include: (i) a pre-tax charge of $56 million, ($38 million after-tax and non-controlling interests) related to the 2012 cost reduction program; (ii) a pre-tax charge of $9 million ($6 million after-tax) related to pension settlement; and (iii) an income tax benefit of $55 million related to a loss on a liquidated subsidiary as a result of the divestiture of the U.S. Homecare business.

Amounts for 2011 include: (i) a pre-tax net gain on acquisition of $39 million ($37 million net income – Praxair, Inc.); and (ii) a pre-tax charge of $40 million ($31 million net income – Praxair, Inc.) relating to the 2011 cost reduction program.

Table of Contents

Amounts for 2010 include: (i) an income tax charge of $250 million related to a Spanish income tax settlement; (ii) a pre-tax charge of $58 million ($40 million after-tax) related to the U.S. homecare divestiture; (iii) a net repatriation tax benefit of $35 million; and (iv) a pre-tax charge of $27 million ($26 million after-tax) related to the Venezuela currency devaluation.
Amounts for 2009 include the impact of the Brazil tax amnesty program and other charges of $306 million ($7 million after-tax benefit).
See Notes 2, 5 and 11 to the consolidated financial statements.

(b) Non-GAAP measures. See the "Non-GAAP Financial Measures" section in Item 7 for definitions and reconciliation to reported amounts.

Table of Contents

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

The following discussion of the company's financial condition and results of operations should be read together with its consolidated financial statements and notes to the consolidated financial statements included in Item 8 of this Form 10-K.

BUSINESS OVERVIEW

Praxair is the largest industrial gases supplier in North and South America, is rapidly growing in Asia, and has strong, well-established businesses in Europe. The company's primary products are oxygen, hydrogen, nitrogen, argon, carbon dioxide, helium, electronic gases and a wide range of specialty gases. Praxair Surface Technologies supplies high-performance coatings that protect metal parts from wear, corrosion and high heat. Praxair's industrial gas operations are managed on a geographical basis and in 2013, 95% of sales were generated in four geographic segments (North America, Europe, South America, and Asia). The surface technologies segment generated the remaining 5% of sales.

Praxair serves approximately 25 industries as diverse as healthcare, petroleum refining, computer-chip manufacturing, beverage carbonation, fiber-optics, steel making, aerospace, chemicals and water treatment. The diversity of end markets creates financial stability for Praxair in varied business cycles.

Praxair generates most of its revenues and earnings through the following 11 core geographies where the company has its strongest market positions and where distribution and production operations allow the company to deliver the highest level of service to its customers at the lowest cost.

North America	South America	Europe	Asia
United States	Brazil	Spain	China
Canada		Italy	India
Mexico		Germany/Benelux	Korea
			Thailand

Praxair manufactures and distributes its products through networks of hundreds of production plants, pipeline complexes, distribution centers and delivery vehicles. Major pipeline complexes are located in the United States, Brazil, Spain and Germany. These networks are a competitive advantage, providing the foundation of reliable product supply to the company's customer base. The majority of Praxair's business is conducted through long-term contracts which provide stability in cash flow and the ability to pass through changes in energy and feedstock costs to customers. The company has significant growth opportunities in diverse markets including: hydrogen for refining; oxygen for gasification and oxy-fuel applications; and nitrogen and carbon dioxide for oil and gas production.

Table of Contents

EXECUTIVE SUMMARY – FINANCIAL RESULTS & OUTLOOK

2013 Year in review

Praxair delivered strong results for the full year of 2013. Sales growth came primarily from strong volume growth in North America, South America and Asia and higher overall pricing. This was partially offset by the impact of negative currency translation, primarily in South America due to a weaker Brazilian Real versus the U.S. dollar. Volume growth versus 2012 came from project start-ups primarily in North America and Asia, stronger underlying customer demand in most major geographies due to improved macro-economic conditions as compared to 2012, and several acquisitions completed during the year. Operating profit and earnings per share both grew from the prior year, and the company generated record cash flow from operations.

- Sales of $11,925 million were 6% above 2012 sales of $11,224 million. Excluding negative currency impacts, sales grew 8% primarily due to organic sales growth, acquisitions and new project start-ups.
- Reported operating profit of $2,625 million increased 8% from $2,437 million in 2012. Adjusted operating profit of $2,657 million increased 6% from 2012, from higher volumes, pricing, and acquisitions, partially offset by negative currency effects.*
- Reported net income – Praxair, Inc. of $1,755 million and diluted earnings per share of $5.87 increased from $1,692 million and $5.61, respectively, in 2012. Adjusted net income – Praxair, Inc. of $1,772 million and adjusted diluted earnings per share of $5.93 increased 5% and 6% above 2012, respectively. Earnings per share grew faster than net income due to lower shares outstanding as a result of share repurchases during the year.*
- Cash flow from operations was a record $2,917 million, 6% above 2012.
- Capital expenditures were $2,020 million, primarily for the construction of new on-site production plants under long-term contract with customers around the world. Acquisition expenditures of $1,323 million primarily related to the acquisition of NuCO_2 Inc ("NuCO_2") in the United States.

2014 Outlook

- Sales are forecasted to be in the range of $12.3 to $12.8 billion.
- Diluted earnings per share are forecasted to be in the range of $6.25 to $6.55, an increase of 5% to 10% from 2013 adjusted amounts.
- Effective tax rate of about 28%.
- Capital expenditures in the range of $1.8 to $2.0 billion.
- The company's core business is to build, own, and operate industrial gas plants in order to supply atmospheric and process gases to customers. As such, Praxair believes that its backlog is an indicator of future sales growth. At December 31, 2013, Praxair's backlog of 32 large projects under construction was $2.2 billion. This represents the total estimated capital cost of large plants under construction. North America and Asia each represent about one-third of the backlog. The remaining backlog resides in Europe, primarily in Russia, and in South America.

* A reconciliation of the Adjusted amounts can be found in the "Non-GAAP Financial Measures" section on this MD&A. See Notes 2, 5 and 11 to the consolidated financial statements.

The above guidance should be read in conjunction with the section entitled "Forward-Looking Statements."

Praxair provides quarterly updates on operating results, material trends that may affect financial performance, and financial earnings guidance via earnings releases and investor teleconferences. These materials are available on the company's website, www.praxair.com/investors but are not incorporated herein.

Table of Contents

CONSOLIDATED RESULTS AND OTHER INFORMATION

The following table provides selected data for 2013, 2012, and 2011:

				Variance	
(Dollar amounts in millions, except per share data)	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Year Ended December 31,					
Reported Amounts:					
Sales	$11,925	$11,224	$11,252	6 %	— %
Gross margin (a)	$5,181	$4,828	$4,794	7 %	1 %
As a percent of sales	43.4 %	43.0 %	42.6 %		
Selling, general and administrative	$1,349	$1,270	$1,239	6 %	3 %
As a percent of sales	11.3 %	11.3 %	11.0 %		
Depreciation and amortization	$1,109	$1,001	$1,003	11 %	— %
Venezuela currency devaluation and other charges – net (b)	$32	$65	$1		
Other income (expenses) – net	$32	$43	$7		
Operating profit	$2,625	$2,437	$2,468	8 %	(1)%
As a percent of sales	22.0 %	21.7 %	21.9 %		
Interest expense – net	$178	$141	$145	26 %	(3)%
Effective tax rate	26.5 %	25.5 %	27.6 %		
Income from equity investments	$38	$34	$40	12 %	(15)%
Noncontrolling interests	$(81)	$(52)	$(50)	56 %	4 %
Net income – Praxair, Inc.	$1,755	$1,692	$1,672	4 %	1 %
Diluted earnings per share	$5.87	$5.61	$5.45	5 %	3 %
Diluted shares outstanding	298,965	301,845	306,722	(1)%	(2)%
Number of employees	27,560	26,539	26,184		
Adjusted Amounts (c):					
Operating profit	$2,657	$2,502	$2,469	6 %	1 %
As a percent of sales	22.3 %	22.3 %	21.9 %		
Interest expense – net	$160	$141	$145	13 %	(3)%
Effective tax rate	28.0 %	28.0 %	27.8 %		
Noncontrolling interests	$(65)	$(54)	$(51)		
Net income – Praxair, Inc.	$1,772	$1,681	$1,666	5 %	1 %
Diluted earnings per share	$5.93	$5.57	$5.43	6 %	3 %

(a) Gross margin excludes depreciation and amortization expense.

(b) See Note 2 to the consolidated financial statements.

(c) Adjusted amounts are non-GAAP measures. A reconciliation of reported amounts to adjusted amounts can be found in the “Non-GAAP Financial Measures” section of this MD&A. See Notes 2, 5 and 11 to the consolidated financial statements.

Table of Contents

Results of Operations

The following table provides a summary of changes in consolidated sales and adjusted operating profit:

	2013 vs. 2012 % Change Sales	Operating Profit	2012 vs. 2011 % Change Sales	Operating Profit
Factors Contributing to Changes				
Volume	3 %	1 %	2 %	1 %
Price	2 %	8 %	2 %	7 %
Cost pass-through	— %	— %	(1)%	— %
Currency	(2)%	(2)%	(4)%	(5)%
Acquisitions/Divestitures	3 %	3 %	1 %	1 %
Other	— %	(2)%	— %	(5)%
Reported	6 %	8 %	— %	(1)%
Venezuela currency devaluation and other charges, net	— %	(2)%	—	2 %
Adjusted	6 %	6 %	— %	1 %

The following tables provide consolidated sales by end-market and distribution method:

	% of Sales 2013	2012	2011	Organic Sales* % Change 2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	24 %	25 %	24 %	2 %	5 %
Metals	17 %	18 %	18 %	7 %	6 %
Energy	13 %	11 %	11 %	10 %	10 %
Chemicals	10 %	10 %	10 %	9 %	(1)%
Electronics	8 %	8 %	9 %	1 %	(5)%
Healthcare	8 %	8 %	8 %	4 %	6 %
Food & Beverage	8 %	6 %	6 %	1 %	1 %
Aerospace	3 %	3 %	3 %	4 %	11 %
Other	9 %	11 %	11 %	1 %	(6)%
	100 %	100 %	100 %		

* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures.

	% of Sales 2013	2012	2011
Sales by Distribution Method**			
On-Site	27 %	26 %	26 %
Merchant	34 %	33 %	34 %
Packaged Gas	30 %	31 %	30 %
Other	9 %	10 %	10 %
	100 %	100 %	100 %

** Prior years' amounts have been reclassified to conform to current year's presentation.

19

Table of Contents

2013 Compared With 2012

Sales increased 6% to $11,925 million during 2013 compared to $11,224 million in 2012. Higher volumes, primarily in North and South America and in Asia, higher overall pricing and growth from acquisitions were partially offset by negative currency translation impacts, primarily resulting from the strengthening of the U.S. dollar against the Brazilian Real. Cost pass-through had minimal impact due to lower precious metal prices offsetting energy cost inflation.

Gross margin increased $353 million, or 7%, versus 2012. The increase was due to higher volumes and higher pricing, resulting in an increase in the gross margin percentage to 43.4%, versus 43.0% in the prior year.

Selling, general and administrative ("SG&A") expenses in 2013 were $1,349 million, or 11.3% of sales, versus $1,270 million, or 11.3% of sales, for 2012. The increase in SG&A expense of $79 million was primarily due to the impact of acquisitions ($56 million). In addition, pension expense increased $26 million due to an increase in the amortization of net actuarial losses, primarily attributable to lower discount rates. Currency effects reduced SG&A expense by $14 million.

Depreciation and amortization expense increased $108 million versus 2012. This increase was primarily due to an increase of $42 million from acquisitions and approximately $70 million from plant start-ups and asset additions, partially offset by currency effects of $13 million.

Other income (expenses) – net in 2013 was a $32 million benefit versus a $43 million benefit in 2012. Other income was higher in 2012 primarily due to a larger favorable litigation settlements in South America. See Note 7 to the consolidated financial statements for a summary of the major components of Other income (expenses) – net.

Reported operating profit of $2,625 million in 2013 was $188 million, or 8% higher than reported operating profit of $2,437 million in 2012. As a percentage of sales, reported operating profit increased to 22.0% in 2013 from 21.7% in 2012. This is primarily due to the attainment of price increases in most geographies. The 2013 period includes a $23 million charge related to the Venezuela currency devaluation and $9 million charge related to a pension settlement. The 2012 period also included a pension settlement charge of $9 million as well as a $56 million charge for cost reduction programs. Adjusted operating profit of $2,657 million in 2013 was $155 million, or 6% higher than adjusted operating profit of $2,502 million in 2012. A discussion of operating profit by segment is included in the segment discussion that follows.

Reported interest expense – net in 2013 increased $37 million, versus 2012. The increase included an $18 million charge recognized upon the early redemption of the $400 million 5.25% Notes due in 2014. Excluding this charge, adjusted interest expense increased $19 million. Higher overall debt levels to fund capital expenditures and acquisitions increased interest expense by about $45 million, and reduced benefits from the amortization of interest rate swap gains increased interest expense by $11 million versus 2012. Lower interest rates reduced interest expense by approximately $37 million dollars. See Note 7 to the consolidated financial statements for further information relating to interest expense.

The effective tax rate for 2013 was 26.5% versus 25.5% in 2012. 2013 included a $40 million benefit as a result of a realignment of Praxair's Italian legal structure, and 2012 included a $55 million income tax benefit related to the loss on a liquidated subsidiary (See Note 5 to the consolidated financial statements). The adjusted effective tax rate for both 2012 and 2013 was 28.0%.

Praxair's significant equity investments are in the United States, China, Italy, and the Middle East. Equity income increased $4 million in 2013 related primarily to higher equity income in China.

At December 31, 2013, reported noncontrolling interests consisted primarily of noncontrolling shareholders' investments in Asia (primarily in China and India), Europe (primarily in Italy and Scandinavia), and North America (primarily within the U.S. packaged gas business). The $29 million increase in reported noncontrolling interests in 2013 was primarily due to the minority shareholder's portion of the income tax benefit in Italy related to the company's legal realignment. Adjusted noncontrolling interest in 2013 was $65 million compared to $54 million in 2012. This increase is primarily driven by improved performance by the U.S. packed gas and Italian investments.

Reported net income - Praxair, Inc. in 2013 was $1,755 million, or $63 million above net income - Praxair, Inc. of $1,692 million in 2012. Adjusted net income – Praxair, Inc. of $1,772 million in 2013 was $91 million, or 5% higher than adjusted net income – Praxair, Inc. of $1,681 million in 2012. This increase was primarily due to higher adjusted operating profit partially offset by higher interest expense and increased income tax expense.

Reported diluted earnings per share ("EPS") of $5.87 in 2013 increased $0.26 per diluted share, or 5% from $5.61 in 2012. Adjusted diluted EPS of $5.93 in 2013 increased $0.36 per diluted share, or 6%, from adjusted diluted EPS of $5.57 in 2012. The increase in adjusted diluted EPS was primarily due to higher net income – Praxair, Inc. and a 1.0% decrease in the number of diluted shares outstanding as a result of the company's net repurchases of common stock during 2013.

Table of Contents

Other comprehensive loss at December 31, 2013 of $123 million includes negative currency translation adjustments of $447 million, a positive adjustment of $323 million related to the funded status of retirement obligations and a positive adjustment of $1 million related to derivative instruments. The translation adjustments reflect the impact of translating local currency foreign subsidiary financial statements to U.S. dollars (see “Currency” section of the MD&A for exchange rates). The negative translation adjustment primarily resulted from currency movements of $342 million in South America, principally related to Brazil and Argentina as well as from $137 million in North America primarily related to Canada and Mexico. The positive pension funded status impact is primarily related to the improvement of the funded status of the pension and postretirement benefits other than pensions ("OPEB") plans driven principally by actuarial gains and losses of $395 million. Of this amount $165 million relates to assets returns in excess of assumed returns. The remaining $230 million primarily relates to the impact of higher discount rates (see note 16 to the consolidated financial statements).

The number of employees at December 31, 2013 was 27,560, reflecting an increase of 1,021 employees from December 31, 2012. This increase primarily reflects the impact of the $NuCO_2$ acquisition.

2012 Compared With 2011

Sales in 2012 were comparable to 2011. Higher volumes and price, primarily in North America and Asia, were offset by negative currency translation impacts, due to the strengthening of the U.S. dollar against most global currencies, primarily the Brazilian Real and the Euro, and lower cost pass-through, primarily lower natural gas prices.

Gross margin in 2012 increased $34 million, or 1%, versus 2011. The modest increase in the gross margin percentage to 43.0% in 2012 versus 42.6% in 2011 was due primarily to the impact of lower natural gas cost pass-through to customers.

Selling, general and administrative ("SG&A") expenses in 2012 were $1,270 million, or 11.3% of sales, versus $1,239 million, or 11.0% of sales, for 2011. The increase in SG&A expense of $31 million was due to the impact of acquisitions ($44 million), and higher pension expense ($23 million) related to an increase in the amortization of net actuarial gains/losses, primarily attributable to lower discount rates. The effect of currency translation reduced SG&A expense by $48 million.

Depreciation and amortization expense in 2012 decreased $2 million versus 2011 due to currency effects.

Other income (expenses) – net in 2012 was a $43 million benefit versus a $7 million benefit in 2011. The change in 2012 versus 2011 was primarily due to gains on asset sales in North America and Asia, and a litigation settlement in South America, partially offset by business restructuring charges in South America and currency related losses. See Note 7 to the consolidated financial statements for a summary of the major components of Other income (expenses) – net.

Reported operating profit of $2,437 million in 2012 was $31 million, or 1% lower than operating profit of $2,468 million in 2011. As a percentage of sales, reported operating profit decreased to 21.7% in 2012 from 21.9% in 2011. This is primarily due to the $65 million cost reduction program and pension settlement charge in 2012. Adjusted operating profit of $2,502 million in 2012 was $33 million, or 1% higher than adjusted operating profit of $2,469 million in 2011. As a percentage of sales, adjusted operating profit improved to 22.3% in 2012 versus 21.9% in 2011. A discussion of operating profit by segment is included in the segment discussion that follows.

Interest expense – net in 2012 decreased $4 million, versus 2011. Lower interest rates reduced interest expense by approximately $30 million. Additionally, higher capitalized interest, due to higher capital expenditures, reduced interest expense by approximately $8 million. These reductions were partially offset by the impact of higher debt which increased interest expense by approximately $29 million. The remaining variance of $5 million related to miscellaneous other items, none of which were significant. See Note 7 to the consolidated financial statements for further information relating to interest expense.

The effective tax rate for 2012 was 25.5% versus 27.6% in 2011. The reduction in the effective rate in 2012 compared to 2011 was primarily driven by the $55 million income tax benefit related to the loss on a liquidated subsidiary. The adjusted effective tax rate for 2012 was 28.0%, versus 27.8% in 2011.

Praxair's significant equity investments are in the United States, China, Italy, and the Middle East. Equity income decreased $6 million in 2012 related primarily to the negative impact of currencies and the consolidation of Yara Praxair in the fourth quarter of 2011 which was previously accounted for as an equity investment.

At December 31, 2012, reported noncontrolling interests consisted primarily of noncontrolling shareholders' investments in Asia (primarily in China and India), Europe (primarily in Italy and Scandinavia), and North America (primarily within the U.S. packaged gas business). The $2 million increase in noncontrolling interests in 2012 was

Table of Contents

primarily due to the impact of the consolidation of Yara Praxair as a result of obtaining a controlling ownership interest in the fourth quarter of 2011, partially offset by cost reduction charges in the European investments and the negative impact of currency on European and Asian investments. Adjusted noncontrolling interests was $54 million in 2012 compared to $51 million in the prior year.

Reported net income - Praxair, Inc. of in 2012 was $1,692 million, or $20 million higher than net income- Praxair, Inc. of $1,672 million in 2011. The increase in reported net income - Praxair, Inc from 2011 to 2012 was the result of a non-recurring gain on acquisition in 2011 offset by the aforementioned income tax benefit in 2012. Adjusted net income – Praxair, Inc. of $1,681 million in 2012 was $15 million, or 1% higher than adjusted net income – Praxair, Inc. of $1,666 million in 2011. The increase was due to higher adjusted operating profit and lower interest expense partially offset by lower income from equity investments.

Reported diluted EPS of $5.61 in 2012 increased $0.16 per diluted share, or 3%, from adjusted diluted EPS of $5.45 in 2011. Adjusted diluted EPS of $5.57 in 2012 increased $0.14 per diluted share, or 3%, from adjusted diluted EPS of $5.43 in 2011. The increase in both reported and adjusted diluted EPS was primarily due to higher net income – Praxair, Inc. and a 2% decrease in the number of diluted shares outstanding as a result of the company's net repurchases of common stock during 2012.

Other comprehensive income (loss) for the year ended December 31, 2012 of $1,586 million includes positive translation adjustments of $4 million and a negative adjustment of $108 million related to the funded status of retirement obligations. The translation adjustments reflect the impact of translating local currency foreign subsidiary financial statements to U.S. dollars (see "Currency" section of the MD&A for exchange rates). The positive translation adjustments primarily resulted from currency movements in North American ($99 million related to Canada and Mexico), Asia ($40 million related primarily to Korea), and Europe ($31 million). These positive impacts were largely offset by a negative currency adjustment of $171 million in South America, primarily related to Brazil and Argentina. The negative pension funded status impact resulted primarily from current year net actuarial losses, due primarily to lower discount rates. See Note 16 to the consolidated financial statements for a summary of the pension funded status components recognized in other comprehensive income (loss).

The number of employees at December 31, 2012 was 26,539, reflecting an increase of 355 employees from December 31, 2011. This increase reflects acquisitions and additions in growing businesses, partially offset by the impact of cost reduction plans put in place during the fourth quarter of 2011 and the third quarter of 2012, primarily in Europe and South America.

Related Party Transactions

The company's related parties are primarily unconsolidated equity affiliates. The company did not engage in any material transactions involving related parties that included terms or other aspects that differ from those which would be negotiated with independent parties.

Environmental Matters

Praxair's principal operations relate to the production and distribution of atmospheric and other industrial gases, which historically have not had a significant impact on the environment. However, worldwide costs relating to environmental protection may continue to grow due to increasingly stringent laws and regulations, and Praxair's ongoing commitment to rigorous internal standards.

Climate Change

Praxair operates in jurisdictions that have, or are developing, laws and/or regulations to reduce or mitigate the perceived adverse effects of greenhouse gas ("GHG") emissions and faces a highly uncertain regulatory environment in this area. For example, the U.S. Environmental Protection Agency ("EPA") has promulgated rules requiring monitoring and controlling GHG emissions and one of these rules regulates GHG emissions from light-duty vehicles and certain large manufacturing facilities, many of which are Praxair suppliers or customers. In addition to these developments in the United States, there has been regulation of GHGs in the European Union under the Emissions Trading System, which have wide implications for our customers and may impact certain operations of Praxair in Europe. There are also requirements for mandatory reporting in Quebec, Canada, which apply to certain Praxair operations and will be used in developing cap-and-trade regulations on GHG emissions, which are expected to impact certain Praxair facilities. Among other impacts, such regulations are expected to raise the costs of energy, which is a significant cost for Praxair. Nevertheless, Praxair's customer contracts routinely provide rights to recover increased electricity, natural gas, and other costs that are incurred by the company.

Table of Contents

Praxair anticipates continued growth in its hydrogen business, as hydrogen is essential to refineries which use it to remove sulfur from transportation fuels in order to meet ambient air quality standards in the United States. Hydrogen production plants and a large number of other manufacturing and electricity-generating plants have been identified under California law as a source of carbon dioxide emissions and these plants have also become subject to recently promulgated cap-and-trade regulations in that state. Praxair believes it will be able to mitigate the costs of these regulations through the terms of its product supply contracts. However, legislation that limits GHG emissions may impact growth by increasing operating costs and/or decreasing demand.

To manage these potential business risks from potential GHG emission regulation, Praxair actively monitors current developments, evaluates the direct and indirect business risks, and takes appropriate actions. Among others, actions include: increasing relevant resources and training; consulting with vendors, insurance providers and industry experts; incorporating GHG provisions in commercial agreements; and conducting regular reviews of the business risks with management. Although there are considerable uncertainties, Praxair believes that the business risk from potential regulations can be effectively managed through its commercial contracts. Additionally, Praxair does not anticipate any material effects regarding its plant operations or business arising from potential physical risks of climate change. Also, Praxair continuously seeks opportunities to reduce its own energy use and GHG footprint.

At the same time, Praxair may benefit from business opportunities arising from governmental regulation of GHG and other emissions; rising costs of many energy and natural resources; new technologies to extract natural gas; and the development of renewable energy alternatives. Praxair continues to develop new applications technologies that can lower emissions, including GHG emissions, in Praxair's processes and help customers lower energy consumption and increase product throughput. Stricter regulation of water quality in emerging economies such as China provide a growing market for a number of gases, e.g., oxygen for wastewater treatment. Renewable fuel standards in the European Union and U.S. create a market for second-generation biofuels which are users of industrial gases such as oxygen, carbon dioxide, and hydrogen.

Costs Relating to the Protection of the Environment

Environmental protection costs in 2013 included approximately $16 million in capital expenditures and $29 million of expenses. Praxair anticipates that future annual environmental protection expenditures will be similar to 2013, subject to any significant changes in existing laws and regulations. Based on historical results and current estimates, management does not believe that environmental expenditures will have a material adverse effect on the consolidated financial position, the consolidated results of operations or cash flows in any given year.

Legal Proceedings

See Note 17 to the consolidated financial statements for information concerning legal proceedings.

Retirement Benefits

Pensions

The net periodic benefit cost for the U.S. and International pension plans was $119 million in 2013, $93 million in 2012 and $66 million in 2011. Consolidated net periodic benefit cost included settlement charges of $9 million, $10 million and $6 million in 2013, 2012 and 2011, respectively.

The funded status (pension benefit obligation ("PBO") less the fair value of plan assets) for the U.S. plans was a deficit of $171 million as December 31, 2013 versus a deficit of $535 million at December 31, 2012. This improvement was due to higher discount rates, strong investment performance in 2013 and contributions of $35 million.

Global pension contributions were $52 million in 2013, $184 million in 2012 and $94 million in 2011. Estimates for 2014 contributions are in the area of $25 million.

Praxair assumes an expected return on plan assets for 2014 in the United States of 8.00%, which is consistent with the long-term expected return on its investment portfolio. Excluding the impact of any settlements, 2014 consolidated pension expense is expected to be approximately $75 million. The decrease is due primarily to fewer net actuarial losses to be amortized as a result of an increase in the discount rates, and the return on assets during 2013. The amortization is recognized based on the amount of net actuarial gains/losses above certain thresholds and over the periods of either the average remaining service lives or the average remaining life expectancies of the retirees.

Table of Contents

OPEB

The net periodic benefit cost for OPEB plans was $11 million in 2013, $9 million in 2012 and $12 million in 2011. The funded status deficit decreased $43 million during 2013 due primarily to higher discount rates.

In 2014, consolidated net periodic benefit costs for the OPEB plans is expected to be approximately $9 million.

See the Critical Accounting Policies section and Note 16 to the consolidated financial statements for a more detailed discussion of the company’s retirement benefits, including a description of the various retirement plans and the assumptions used in the calculation of net periodic benefit cost and funded status.

Insurance

Praxair purchases insurance to limit a variety of property and casualty risks, including those related to property, business interruption, third-party liability and workers’ compensation. Currently, the company self-retains the first $5 million per occurrence for workers’ compensation, general and vehicle liability in the United States and retains $2.5 million to $5 million per occurrence at its various properties worldwide. To mitigate its aggregate loss potential above varying retentions, the company purchases insurance coverage from highly rated insurance companies at what it believes are reasonable coverage levels.

At December 31, 2013 and 2012, the company had recorded a total of $33 million and $28 million, respectively, representing an estimate of the retained liability for the ultimate cost of claims incurred and unpaid as of the balance sheet dates. The estimated liability is established using statistical analysis and is based upon historical experience, actuarial assumptions and professional judgment. These estimates are subject to the effects of trends in loss severity and frequency and are subject to a significant degree of inherent variability. If actual claims differ from the company’s estimates, they will be adjusted at that time and financial results could be impacted.

Praxair recognizes estimated insurance proceeds relating to damages at the time of loss only to the extent of incurred losses. Any insurance recoveries for business interruption and for property damages in excess of the net book value of the property are recognized only when realized.

SEGMENT DISCUSSION

The following summary of sales and operating profit by segment provides a basis for the discussion that follows (for additional information concerning Praxair’s segments, see Note 18 to the consolidated financial statements). Praxair evaluates the performance of its reportable segments based on operating profit, excluding the items not indicative of ongoing business trends. Accordingly, segment operating profit and the following discussion of segment results, including comparisons with prior periods, exclude the impacts of: (i) Venezuela currency devaluation and pension settlement in 2013, (ii) a cost reduction program and a pension settlement charge in 2012, (iii) the net gain on acquisition and cost reduction program in 2011. Certain prior years’ amounts have been reclassified to conform to the current year’s presentation.

Table of Contents

(Dollar amounts in millions)				Variance	
Year Ended December 31,	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales					
North America	$6,164	$5,598	$5,490	10 %	2 %
Europe	1,542	1,474	1,458	5 %	1 %
South America	2,042	2,082	2,308	(2)%	(10)%
Asia	1,525	1,414	1,348	8 %	5 %
Surface Technologies	652	656	648	(1)%	1 %
	$11,925	$11,224	$11,252	6 %	— %
Operating Profit					
North America	$1,538	$1,465	$1,331	5 %	10 %
Europe	270	256	272	5 %	(6)%
South America	467	429	530	9 %	(19)%
Asia	271	246	234	10 %	5 %
Surface Technologies	111	106	102	5 %	4 %
Segment operating profit	2,657	2,502	2,469	6 %	1 %
Venezuela currency devaluation and other charges (Note 2)	(32)	(65)	(1)		
Total operating profit	$2,625	$2,437	$2,468		

North America

(Dollar amounts in millions)				Variance	
Year Ended December 31,	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales	$6,164	$5,598	$5,490	10 %	2 %
Cost of sales, exclusive of depreciation and amortization	3,301	2,968	2,995		
Gross margin	2,863	2,630	2,495		
Operating expenses	759	667	669		
Depreciation and amortization	566	498	495		
Operating profit	$1,538	$1,465	$1,331	5 %	10 %
Margin %	25.0 %	26.2 %	24.2 %		

Table of Contents

	2013 vs. 2012 % Change		2012 vs. 2011 % Change	
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume	2 %	1 %	3 %	3 %
Price	2 %	8 %	2 %	8 %
Cost pass-through	1 %	— %	(3)%	— %
Currency	— %	— %	(1)%	(1)%
Acquisitions/Divestitures	5 %	5 %	1 %	1 %
Other	— %	(9)%	— %	(1)%
	10 %	5 %	2 %	10 %

The following tables provide sales by end-market and distribution method:

	% of Sales			Organic Sales % Change	
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	30 %	32 %	29 %	3 %	8 %
Metals	13 %	14 %	13 %	1 %	5 %
Energy	19 %	17 %	17 %	13 %	12 %
Chemicals	10 %	11 %	11 %	4 %	(6)%
Electronics	5 %	5 %	6 %	(8)%	(9)%
Healthcare	7 %	7 %	8 %	— %	— %
Food & Beverage	8 %	5 %	5 %	(1)%	— %
Aerospace	1 %	1 %	1 %	14 %	4 %
Other	7 %	8 %	10 %	— %	(1)%
	100 %	100 %	100 %		

	% of Sales		
	2013	2012	2011
Sales by Distribution Method			
On-Site	28 %	27 %	28 %
Merchant	36 %	35 %	35 %
Packaged Gas	34 %	36 %	33 %
Other	2 %	2 %	4 %
	100 %	100 %	100 %

The North America segment includes Praxair's industrial gases operations in the United States, Canada and Mexico. Sales for 2013 increased $566 million, or 10%, versus 2012. Underlying sales growth was 4% driven primarily by higher on-site volumes from new project start-ups for hydrogen supply to refinery customers in the United States, higher merchant volumes and higher pricing. Sales grew to the energy, chemicals, manufacturing, and food and beverage end-markets. Strong sales growth to the energy end-market was primarily due to hydrogen project start-ups. Acquisitions, primarily $NuCO_2$, added 5% sales growth and contributed to the 3% increase of total sales represented by the food and beverage end-market in 2013. Higher cost pass-through, primarily higher natural gas prices passed through to hydrogen customers, increased sales by 1%. North American packaged gas sales were above prior year due to solid growth in the US business. However, with the growth in on-site sales due to the start-up of new hydrogen projects and the growth in merchant sales due to the acquisition of $NuCO_2$, packaged gas sales decreased as a percentage of total sales for the segment.

Operating profit for 2013 increased $73 million, or 5% from 2012. Higher pricing, higher volumes from project start-ups and acquisitions contributed to the growth in operating profit. Operating profit included a contract settlement for

Table of Contents

$23 million. The growth was partially offset by higher operating costs and the impact of a gain on asset sale in the prior year. Depreciation and amortization increased $68 million in 2013 due to acquisitions and new project start-ups.
Sales for 2012 increased $108 million, or 2%, versus 2011, due to higher volumes and price. Volume growth of 3% was driven by higher sales to the energy, manufacturing and metals end-markets which more than offset weaker sales to the electronics and chemical end-markets. Higher pricing increased sales by 2%. Negative currency impacts decreased sales by 1%. Lower cost pass-through, primarily lower natural gas prices passed through to hydrogen customers, decreased sales by 3%, with a minimal impact on operating profit. Acquisitions of packaged gas distributors, primarily in the United States, contributed 1% to sales growth.
Operating profit for 2012 increased $134 million, or 10% versus 2011, driven by higher pricing and volumes. The operating margin increased to 26.2% from 24.2% in 2011 due primarily to higher volumes and price and the impact of lower natural gas pass-through.

Europe

(Dollar amounts in millions)				Variance	
Year Ended December 31,	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales	$1,542	$1,474	$1,458	5 %	1 %
Cost of sales, exclusive of depreciation and amortization	881	841	849		
Gross margin	661	633	609		
Operating expenses	222	228	196		
Depreciation and amortization	169	149	141		
Operating profit	$270	$256	$272	5 %	(6)%
Margin %	17.5 %	17.4 %	18.7 %		

	2013 vs. 2012 % Change		2012 vs. 2011 % Change	
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume	(1)%	(12)%	(2)%	(7)%
Price	1 %	6 %	1 %	3 %
Cost pass-through	(1)%	— %	(1)%	— %
Currency	3 %	3 %	(7)%	(8)%
Acquisitions/Divestitures	3 %	3 %	10 %	8 %
Other	— %	5 %	— %	(2)%
	5 %	5 %	1 %	(6)%

Table of Contents

The following tables provide sales by end-market and distribution method:

	% of Sales			Organic Sales % Change	
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	22 %	23 %	22 %	(4)%	(3)%
Metals	16 %	16 %	17 %	2 %	(2)%
Energy	6 %	4 %	3 %	7 %	(11)%
Chemicals	16 %	17 %	18 %	— %	— %
Electronics	7 %	8 %	8 %	5 %	(13)%
Healthcare	11 %	11 %	12 %	(2)%	1 %
Food & Beverage	9 %	9 %	7 %	— %	(3)%
Aerospace	1 %	1 %	1 %	— %	— %
Other	12 %	11 %	12 %	(6)%	5 %
	100 %	100 %	100 %		

	% of Sales		
	2013	2012	2011
Sales by Distribution Method			
On-Site	20 %	20 %	21 %
Merchant	34 %	34 %	33 %
Packaged Gas	43 %	42 %	42 %
Other	3 %	4 %	4 %
	100 %	100 %	100 %

Praxair's European industrial gases business is primarily in Spain, Italy, Germany, France, Russia, the United Kingdom, Scandinavia and the Benelux region.

Sales for 2013 increased $68 million, or 5% versus 2012. Sales growth was primarily driven by higher pricing, acquisitions, primarily Dominion Technology Gases Investment Limited, and favorable currency effects. Underlying sales were unchanged from the prior year as volumes were higher year over year in Germany, Russia, and Scandinavia but overall volumes in Spain and Italy were below the prior year.

Operating profit of $270 million grew 5% from 2012. Higher pricing, favorable currency effects, acquisitions, and lower costs from prior-year cost reduction actions more than offset the impact of lower volumes, primarily in Spain.

Sales for 2012 increased $16 million, or 1% versus 2011. The acquisition of an increased investment in Yara Praxair during the fourth quarter of 2011 (see Note 3 to the consolidated financial statements) which required consolidation, increased sales by 10%, versus the prior year. Underlying sales were 1% below the prior year as lower volumes offset modest price improvements. Currency reduced sales by 7%.

Operating profit for 2012 of $256 million was 6% lower when compared to 2011. The positive contribution to operating profit from the consolidation of Yara Praxair and higher pricing was offset by lower packaged gas sales in Spain, Germany and Western Europe and the negative impact of currency.

Table of Contents

South America

(Dollar amounts in millions)				Variance	
Year Ended December 31,	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales	$2,042	$2,082	$2,308	(2)%	(10)%
Cost of sales, exclusive of depreciation and amortization	1,134	1,202	1,293		
Gross margin	908	880	1,015		
Operating expenses	260	267	288		
Depreciation and amortization	181	184	197		
Operating profit	$467	$429	$530	9%	(19)%
Margin %	22.9%	20.6%	23.0%		

	2013 vs. 2012 % Change		2012 vs. 2011 % Change	
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume	4%	7%	—%	(5)%
Price	3%	13%	2%	9%
Cost pass-through	—%	—%	—%	—%
Currency	(9)%	(9)%	(12)%	(14)%
Acquisitions/Divestitures	—%	—%	—%	—%
Other	—%	(2)%	—%	(9)%
	(2)%	9%	(10)%	(19)%

The following tables provide sales by end-market and distribution method:

	% of Sales			Organic Sales % Change	
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	21%	22%	23%	3%	(2)%
Metals	29%	28%	27%	10%	6%
Energy	2%	4%	5%	(4)%	(9)%
Chemicals	9%	6%	6%	20%	(6)%
Electronics	—%	—%	—%	—%	—%
Healthcare	17%	16%	15%	10%	11%
Food & Beverage	12%	12%	12%	8%	(1)%
Aerospace	—%	—%	—%	—%	—%
Other	10%	12%	12%	(1)%	3%
	100%	100%	100%		

Table of Contents

	% of Sales					
	2013		2012		2011	
Sales by Distribution Method						
On-Site	25	%	23	%	22	%
Merchant	43	%	43	%	44	%
Packaged Gas	30	%	31	%	32	%
Other	2	%	3	%	2	%
	100	%	100	%	100	%

Praxair’s South American industrial gases operations are conducted by its subsidiary, White Martins Gases Industriais Ltda. ("White Martins"), the largest industrial gases company in Brazil. White Martins also manages Praxair’s operations in Argentina, Bolivia, Chile, Colombia, Paraguay, Peru, Uruguay and Venezuela.

Sales in 2013 decreased $40 million, or 2%, versus 2012. Excluding unfavorable currency translation impacts, underlying sales grew 7% from broad-based volume growth and higher pricing. Sales growth came from metals, chemicals, food and beverage and healthcare customers.

Operating profit increased $38 million or 9% versus 2012 and 18% excluding currency effects. Operating leverage was primarily due to higher volumes and pricing across the region. Operating profit included a $10 million litigation settlement in Brazil. Depreciation and amortization increased in 2013 due to the start up of new on-site production facilities but was more than offset by the impacts of currency translation.

Sales in 2012 decreased $226 million, or 10%, versus 2011 due to negative currency effects. Underlying sales grew 2% in 2012 from improved pricing. Overall volumes were flat as higher volumes from new on-site production facilities were offset by lower volumes to merchant and packaged gas customers largely attributable to the lower industrial production rates in Brazil. By end-market, sales increased to metals and healthcare, and were slightly lower to general manufacturing customers.

Operating profit decreased $101 million or 19% versus 2011, primarily due to currency translation impacts which reduced operating profit by 14%. Underlying operating profit decreased 5% versus 2011. Higher pricing in 2012 improved operating profit by 9% but this was more than offset by the impact of a lower mix of higher margin packaged gas and merchant liquid volumes, and higher operating costs primarily related to power, distribution and cost inflation. Reported operating expenses in 2012 were below prior year amounts due primarily to currency impacts. Depreciation and amortization increased in 2012 due to the start up of new on-site production facilities but was more than offset by the impacts of currency translation. 2012 included a benefit from litigation settlements, which was largely offset by charges in connection with business restructuring in Brazil, Chile and Colombia.

Asia

(Dollar amounts in millions)							Variance			
Year Ended December 31,	2013		2012		2011		2013 vs. 2012		2012 vs. 2011	
Sales	$1,525		$1,414		$1,348		8	%	5	%
Cost of sales, exclusive of depreciation and amortization	1,005		952		893					
Gross margin	520		462		455					
Operating expenses	99		89		95					
Depreciation and amortization	150		127		126					
Operating profit	$271		$246		$234		10	%	5	%
Margin %	17.8	%	17.4	%	17.4	%				

Table of Contents

	2013 vs. 2012 % Change		2012 vs. 2011 % Change	
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume	10 %	14 %	6 %	6 %
Price	(1)%	(4)%	(1)%	(4)%
Cost pass-through	(1)%	— %	2 %	— %
Currency	— %	— %	(2)%	(2)%
Other	— %	— %	— %	5 %
	8 %	10 %	5 %	5 %

The following tables provide sales by end-market and distribution method:

	% of Sales			Organic Sales % Change	
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	11 %	12 %	13 %	1 %	(1)%
Metals	27 %	25 %	23 %	15 %	20 %
Energy	2 %	1 %	1 %	172 %	— %
Chemicals	13 %	11 %	10 %	19 %	18 %
Electronics	34 %	37 %	39 %	— %	(1)%
Healthcare	1 %	1 %	1 %	— %	— %
Food & Beverage	2 %	3 %	4 %	(18)%	(8)%
Aerospace	— %	— %	— %	— %	— %
Other	10 %	10 %	9 %	18 %	18 %
	100 %	100 %	100 %		

	% of Sales		
	2013	2012	2011
Sales by Distribution Method			
On-Site	48 %	43 %	39 %
Merchant	29 %	29 %	31 %
Packaged Gas	11 %	12 %	14 %
Other	12 %	16 %	16 %
	100 %	100 %	100 %

The Asia segment includes Praxair’s industrial gases operations in China, India, Korea and Thailand, with smaller operations in Taiwan and the Middle East.

Sales for 2013 increased $111 million, or 8%, versus 2012. Volume growth increased sales by 10% due to new on-site sales plant start-ups in China, India and Korea. By end-market, the strongest sales growth came from metals, energy and chemicals customers. Strong growth in on-site volumes due to new plant start-ups accounted for the increase in on-site sales as a percentage of total sales. Merchant volumes in China, India and Korea also showed solid growth versus the prior year. Cost pass-through decreased sales 1% and relates to the contractual pass through of precious metals and power costs fluctuations, with minimal impact on operating profit. Lower merchant pricing, primarily due to the electronics end-market, reduced sales by 1%.

Operating profit for 2013 increased $25 million, or 10%, versus 2012. Strong on-site volume growth was partially offset by the effects of lower pricing in the electronics end-market. Operating profit included a gain related to a land sale in Korea in the fourth quarter of $13 million. Pricing reduced operating profit by 4% primarily due to lower pricing for liquid argon sales in China and electronic gas customers. Operating expenses increased $10 million primarily due to new

31

Table of Contents

plant start-ups, salary increases and other benefit costs. Depreciation and amortization expense increased $23 million as compared to the prior year primarily due to new plant start-ups.

Sales for 2012 increased $66 million, or 5%, versus 2011. Volume growth increased sales by 6% due to higher on-site sales from new plant start-ups in China partially mitigated by lower demand from the electronics end-market including semiconductor, flat panel display, and solar customers. Lower merchant pricing, primarily due to the electronics end-market, reduced sales as compared to the prior year. Negative currency impacts, primarily the weakening of the Indian Rupee against the U.S. dollar, reduced sales by 2%. Cost pass-through increased sales 2% and relates to the contractual pass through of precious metals and power costs fluctuations, with minimal impact on operating profit. By end-market, sales increased to metals and chemicals customers, and decreased to manufacturing and electronics.

Operating profit for 2012 increased $12 million, or 5%, versus 2011. Higher volumes due to new plant start-ups increased operating profit; however, this was partially offset by lower sales of higher margin merchant volumes in China and Thailand. Pricing reduced operating profit by 4% primarily due to lower pricing within the electronics end-market. Operating profit included a gain on a land sale in Korea which was partially offset by inflationary cost increases.

Surface Technologies

(Dollar amounts in millions)				Variance	
Year Ended December 31,	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales	$652	$656	$648	(1)%	1%
Cost of sales, exclusive of depreciation and amortization	423	433	428		
Gross margin	229	223	220		
Operating expenses	75	74	74		
Depreciation and amortization	43	43	44		
Operating profit	$111	$106	$102	5%	4%
	17.0%	16.2%	15.7%		

	2013 vs. 2012 % Change		2012 vs. 2011 % Change	
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume/Price	—%	2%	4%	13%
Cost pass-through	(1)%	—%	—%	—%
Currency	—%	—%	(3)%	(5)%
Acquisitions/Divestitures	—%	—%	—%	—%
Other	—%	3%	—%	(4)%
	(1)%	5%	1%	4%

Table of Contents

The following table provides sales by end-market:

	% of Sales			Organic Sales % Change	
	2013	2012	2011	2013 vs. 2012	2012 vs. 2011
Sales by End Markets					
Manufacturing	13 %	14 %	14 %	(2)%	6 %
Metals	8 %	8 %	10 %	4 %	(15)%
Energy	28 %	28 %	25 %	— %	14 %
Chemicals	2 %	3 %	2 %	(9)%	11 %
Electronics	1 %	— %	— %	— %	— %
Healthcare	— %	— %	— %	— %	— %
Food & Beverage	3 %	3 %	3 %	(3)%	5 %
Aerospace	34 %	34 %	31 %	(1)%	13 %
Other	11 %	10 %	15 %	2 %	(24)%
	100 %	100 %	100 %		

Surface technologies provides high-performance coatings and thermal-spray powders and equipment in the Americas, Europe, and Asia.

Sales decreased $4 million, or 1% versus 2012 due primarily to lower cost pass-through for metals for thermal-spray powders. Lower industrial coating and aviation volumes were offset by higher pricing.

Operating profit increased $5 million, or 5% versus 2012. The impact of higher pricing and lower costs, primarily due to the prior-year cost reduction program in Europe and productivity gains, offset the impact of modestly lower overall volumes.

Sales in 2012 increased $8 million, or 1% versus 2011. Underlying sales increased 4% driven by higher volumes and pricing. The underlying sales growth came from increased aerospace coatings and increased coatings for energy markets, particularly coatings for parts used in the oil and gas markets. Currency translation negatively impacted sales by 3%, due primarily to the weakening of the Euro versus the U.S. dollar.

Operating profit increased $4 million, or 4% versus 2011. Higher volumes and pricing increased operating profit by 13%. This growth was partially offset by negative currency impacts and higher costs as compared to the prior year, primarily relating to employee wages and benefit costs, incentive plans expense and general cost inflation.

Table of Contents

Currency

The results of Praxair's non-U.S. operations are translated to the company's reporting currency, the U.S. dollar, from the functional currencies used in the countries in which the company operates. For most foreign operations, Praxair uses the local currency as its functional currency. There is inherent variability and unpredictability in the relationship of these functional currencies to the U.S. dollar and such currency movements may materially impact Praxair's results of operations in any given period.

To help understand the reported results, the following is a summary of the significant currencies underlying Praxair's consolidated results and the exchange rates used to translate the financial statements (rates of exchange expressed in units of local currency per U.S. dollar):

Currency	Percent of 2013 Consolidated Sales (a)	Statements of Income Average Year Ended December 31, 2013	2012	2011	Balance Sheets December 31, 2013	2012
Brazil real	14 %	2.15	1.95	1.67	2.34	2.04
Euro	13 %	0.75	0.78	0.72	0.73	0.76
Canada dollar	8 %	1.03	1.00	0.99	1.06	0.99
Mexico peso	6 %	12.76	13.24	12.32	13.04	13.05
China yuan	5 %	6.16	6.31	6.48	6.05	6.29
Korea won	3 %	1,094	1,132	1,107	1,050	1,073
India rupee	2 %	58.31	53.46	46.28	61.80	54.85
Singapore dollar	1 %	1.25	1.25	1.26	1.26	1.22
Argentina peso	1 %	5.45	4.54	4.13	6.52	4.91
Colombia peso	<1%	1,868	1,797	1,846	1,927	1,768
Taiwan dollar	<1%	29.69	29.65	29.40	29.81	29.04
Thailand bhat	<1%	30.69	31.11	30.50	32.71	30.64
Venezuela bolivar (b)	<1%	5.97	4.30	4.30	6.30	4.30

a) Certain Surface technologies segment sales are included in European, Indian, Korean, and Brazilian sales.

b) On February 8, 2013, the Venezuelan government announced a devaluation of the Venezuelan bolivar from an exchange rate of 4.30 to 6.30 effective February 13, 2013 (see Note 2 to the consolidated financial statements).

Table of Contents

LIQUIDITY, CAPITAL RESOURCES AND OTHER FINANCIAL DATA

(Millions of dollars) Year Ended December 31,	2013	2012	2011
Net Cash Provided by (Used for)			
Operating Activities			
Net income – Praxair, Inc. plus depreciation and amortization	$2,864	$2,693	$2,675
Noncontrolling interests	81	52	50
Net income plus depreciation and amortization (including noncontrolling interests)	2,945	2,745	2,725
Adjustments to reconcile net income to net cash provided by operating activities:			
Venezuela currency devaluation and other charges – net, net of payments (a)	23	43	(5)
Deferred income taxes	101	258	(3)
Working capital	(100)	(105)	(87)
Pension contributions	(52)	(184)	(94)
Other – net	—	(5)	(81)
Total provided by operating activities	$2,917	2,752	$2,455
Investing Activities			
Capital expenditures	$(2,020)	$(2,180)	$(1,797)
Acquisitions, net of cash acquired	(1,323)	(280)	(294)
Divestitures and asset sales	106	82	86
Total used for investing	$(3,237)	$(2,378)	$(2,005)
Financing Activities			
Debt increases (reductions) – net	$1,461	$807	$914
Issuances (purchases) of common stock – net	(436)	(459)	(742)
Cash dividends – Praxair, Inc. shareholders	(708)	(655)	(602)
Excess tax benefit on stock based compensation	46	60	53
Noncontrolling interest transactions and other	(35)	(56)	(3)
Total used for financing	$328	$(303)	$(380)
Other Financial Data (b)			
Debt-to-capital ratio	54.3%	51.9%	51.8%
After-tax return on capital	12.8%	13.9%	14.8%
Return on Praxair, Inc. shareholder's equity	28.6%	28.9%	28.1%

(a) See Note 2 to the consolidated financial statements.

(b) Non-GAAP measures. See the “Non-GAAP Financial Measures” section for definitions and reconciliations to reported amounts.

Cash decreased $19 million in 2013 versus 2012. The primary sources of cash in 2013 were cash flows from operations of $2,917 million, and debt increases net of repayments of $1,461 million. The major uses of cash were capital expenditures of $2,020 million, acquisitions of $1,323 million, purchases of Praxair common stock net of issuances of $436 million, and cash dividends to shareholders of $708 million.

Table of Contents

Cash Flows From Operations

* Includes Spanish income tax settlement payment of $481 million.

2013 compared with 2012

Cash flows from operations increased $165 million to $2,917 million in 2013 from $2,752 million in 2012. The increase was primarily due to higher net income plus depreciation and amortization and the impact of lower pension contributions compared to the prior-year period. These increases were partially offset by lower deferred taxes.

2012 compared with 2011

Cash flows from operations increased $297 million to $2,752 million in 2012 from $2,455 million in 2011. The increase was due to higher net income plus depreciation and amortization, other non-cash charges and lower income tax payments, partially offset by an increase in pension funding, mainly in the United States. The lower tax payments are primarily the result of a tax benefit associated with a loss on a liquidated subsidiary (see Note 2 to the consolidated financial statements), and increased deferred income tax liabilities related to fixed asset depreciation.

Table of Contents

Investing

2013 compared with 2012

Net cash used for investing activities of $3,237 million increased $859 million versus 2012 primarily due to higher acquisitions, net of cash acquired.

Acquisition expenditures in 2013 were $1,323 million, an increase of $1,043 million from 2012. Acquisitions consisted primarily of the acquisition of NuCO2, Inc., Dominion Technology Gases, US packaged gas distributors, and an acquisition in Russia (see Note 3 to the consolidated financial statements).

Capital expenditures in 2013 were $2,020 million, a decrease of $160 million from 2012. Capital expenditures during 2013 related largely to new production plants under contract for customers globally. Approximately half of the capital expenditures were in North American and about 20% were in Asia.

Divestitures and asset sales in 2013 totaled $106 million, which included the sale of a service business and other assets in the United States and proceeds related to a land sale in Korea.

2012 compared with 2011

Net cash used for investing activities of $2,378 million increased $373 million versus 2011 primarily due to increased capital expenditures.

Capital expenditures in 2012 were $2,180 million, an increase of $383 million from 2011. Capital expenditures during 2012 related largely to new production plants under contract for customers globally.

Acquisition expenditures in 2012 were $280 million which were in line with 2011. Acquisitions consisted primarily of the acquisition of packaged gas distributors in North America and an industrial gas business in Russia. 2011 included the acquisition of a controlling interest in Yara Praxair, several packaged gas distributors in the United States, and a 49% ownership in ROC Group's industrial gases business operating in the United Arab Emirates.

Divestitures and asset sales in 2012 totaled $82 million, which included the sale of an electronics business in the United States and a land sale in Korea.

Table of Contents

Financing

Praxair’s financing strategy is to secure long-term committed funding by issuing public notes and debentures and commercial paper backed by a long-term bank credit agreement. Praxair’s international operations are funded through a combination of local borrowing and inter-company funding to minimize the total cost of funds and to manage and centralize currency exchange exposures. As deemed necessary, Praxair manages its exposure to interest-rate changes through the use of financial derivatives (see Note 12 to the consolidated financial statements and Item 7A. Quantitative and Qualitative Disclosures About Market Risk).

The company believes that it has sufficient operating flexibility, cash reserves, and funding sources to maintain adequate amounts of liquidity to meet its business needs around the world. At December 31, 2013, the company’s credit ratings as reported by Standard & Poor’s and Moody’s were A-1 and P-1 for short-term debt, respectively, and A and A2 for long-term debt, respectively. Additionally, the company plans to maintain its undistributed earnings of foreign subsidiaries to support foreign growth opportunities and reduce local debt.

In February 2013, Praxair issued $400 million of 0.75% notes due 2016 and $500 million of 2.70% notes due 2023; in March 2013, Praxair issued $500 million of 1.20% notes due 2018; in April 2013, Praxair issued $475 million of 1.25% notes due 2018 and $175 million of 3.55% notes due 2042; and in November 2013, Praxair issued $500 million of 1.90% notes due 2019.

In June 2013, Praxair repaid $350 million of 3.95% notes and $500 million of 2.125% notes that became due. In December 2013, Praxair redeemed $400 million of 5.25% notes due in November 2014, see Note 11 to the consolidated financial statements.

Note 11 to the consolidated financial statements includes information with respect to the company’s debt refinancing in 2013, current debt position, debt covenants and the available credit facility; and Note 12 includes information relating to derivative financial instruments. Praxair's credit facility is with major financial institutions and is non-cancellable until maturity. Therefore, the company believes the risk of the financial institutions being unable to make required loans under the credit facility, if requested, to be low. Praxair’s major bank credit and long-term debt agreements contain standard covenants. The company was in compliance with these covenants at December 31, 2013 and expects to remain in compliance for the foreseeable future.

Cash provided by financing activities was $328 million in 2013 compared to cash used for financing $303 million in 2012. Cash dividends of $708 million increased $53 million from 2012.

Praxair’s total debt outstanding at December 31, 2013 was $8,811 million, $1,449 million higher than $7,362 million at December 31, 2012 due primarily to higher debt levels required to fund acquisitions. The December 31, 2013 debt

Table of Contents

balance includes $8,579 million in public securities and $232 million representing primarily worldwide bank borrowings. Praxair’s global effective borrowing rate was approximately 2.7% for 2013.

Other Financial Data

Praxair’s debt-to-capital ratio is 54.3% at December 31, 2013 versus 51.9% at December 31, 2012. The increase is attributable to higher debt levels, primarily to fund acquisitions.

After-tax return on capital ("ROC") decreased to 12.8% at December 31, 2013 versus 13.9% at 2012 reflecting the large amount of capital projects under construction and acquisitions made during the year.

Return on equity ("ROE") is 28.6% for the year-ended December 31, 2013 versus 28.9% during 2012.

See the “Non-GAAP Financial Measures” section for definitions and reconciliation of these non-GAAP measures to reported amounts.

CONTRACTUAL OBLIGATIONS

The following table sets forth Praxair’s material contract obligations and other commercial commitments as of December 31, 2013:

(Millions of dollars)	Due or expiring by December 31,						
	2014	2015	2016	2017	2018	Thereafter	Total
Long-term debt obligations:							
Debt and capitalized lease maturities (Note 11)*	$3	$924	$1,167	$727	$1,047	$4,	