

W R GRACE & CO

Form 10-K

February 27, 2013

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

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FORM 10-K  
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF  
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2012

Commission file number 1-13953

W. R. GRACE & CO.

Incorporated under the Laws of the  
State of Delaware

I.R.S. Employer Identification No.  
65-0773649

7500 Grace Drive, Columbia, Maryland 21044-4098  
(410) 531-4000

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

Title of each class	Name of each exchange on which registered
Common Stock, \$.01 par value	New York Stock Exchange, Inc.
Preferred Stock Purchase Rights	

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes  No

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes  No

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

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

Large accelerated filer <input checked="" type="checkbox"/>	Accelerated filer <input type="checkbox"/>	Non-accelerated filer <input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company <input type="checkbox"/>
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Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes  No

The aggregate market value of W. R. Grace & Co. voting and non-voting common equity held by non-affiliates as of June 30, 2012 (the last business day of the registrant's most recently completed second fiscal quarter) based on the closing sale price of \$50.45 as reported on the New York Stock Exchange was \$3,290,077,932.\*

At January 31, 2013, 75,592,381 shares of W. R. Grace & Co. Common Stock, \$.01 par value, were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

None.

Based on 65,214,627 shares of W. R. Grace & Co. ("Grace") Common Stock, \$.01 par value, held by non-affiliates (74,845,708 shares outstanding as of June 30, 2012 less 9,631,081 shares held by stockholders, whose beneficial ownership exceeds 10% of the outstanding shares of Grace Common Stock, as listed in the Grace 2011 Annual \*Report on Form 10-K as filed with the SEC on February 24, 2012, directors and named executive officers).

Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of the management or policies of Grace, or that such person is controlled by or under common control with Grace.

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Grace®, Grace® logo and, except as otherwise indicated, the other trademarks, service marks or trade names used in the text of this report are trademarks, service marks or trade names of operating units of W. R. Grace & Co. or its affiliates and/or subsidiaries. RESPONSIBLE CARE® is a trademark, registered in the United States and/or other countries, of the American Chemistry Council.

Unless the context otherwise indicates, in this document the terms "Grace," "we," "us," "our" or "the Company" mean W. R. Grace & Co. and/or its consolidated subsidiaries and affiliates. Unless otherwise indicated, the contents of websites mentioned in this report are not incorporated by reference or otherwise made a part of this Report.

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PART I

Item 1. BUSINESS

BUSINESS OVERVIEW

W. R. Grace & Co. is engaged in the production and sale of specialty chemicals and specialty materials on a global basis through three operating segments: Grace Catalysts Technologies, which includes catalysts and related products used in refining, petrochemical and other chemical manufacturing applications; Grace Materials Technologies, which includes packaging technologies and engineered materials, used in consumer, industrial, and pharmaceutical applications; and Grace Construction Products, which includes specialty construction chemicals and specialty building materials used in commercial, infrastructure and residential construction. We entered the specialty chemicals industry in 1954, when we acquired both the Dewey and Almy Chemical Company and the Davison Chemical Company.

Grace is the successor to a company that originated in 1854 and originally became a public company in 1953.

In 2001, Grace and 61 of its United States subsidiaries and affiliates filed voluntary petitions for reorganization under Chapter 11 of the United States Bankruptcy Code and, since then, has been subject to the jurisdiction of the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Court").

During the first quarter of 2012, we realigned our business into three operating segments by dividing the businesses formerly operated through our Grace Davison operating segment into two operating segments, Grace Catalysts Technologies and Grace Materials Technologies. We made this change to align our operating segments more closely with the customers we serve and to better position our businesses to realize operational efficiencies and reduce overhead costs, through consolidating the management of our individual businesses at the segment level. We have restated the segment information for each period presented in our consolidated financial statements to reflect this realignment.

Our principal executive offices are located at 7500 Grace Drive, Columbia, Maryland 21044, telephone (410) 531-4000. As of December 31, 2012, we had approximately 6,500 global employees.

Grace Catalysts Technologies produces and sells catalysts and related products used in refining, petrochemical and other chemical manufacturing applications including:

Fluid Catalytic Cracking Catalysts, also called FCC catalysts, that help to "crack" the hydrocarbon chain in distilled crude oil to produce transportation fuels, such as gasoline and diesel fuels, and other petroleum-based products; and FCC additives used to reduce sulfur in gasoline, maximize propylene production from refinery FCC units, and reduce emissions of sulfur oxides, nitrogen oxides and carbon monoxide from refinery FCC units;

Hydroprocessing Catalysts, most of which are marketed through our Advanced Refining Technologies LLC, or ART, joint venture with Chevron Products Company in which we hold a 50% economic interest, that are used in process reactors to upgrade heavy oils into lighter, more useful products by removing impurities such as nitrogen, sulfur and heavy metals, allowing less expensive feedstocks to be used in the petroleum refining process (ART is not consolidated in our financial statements, so ART's sales are excluded from our sales); and

Polyolefin Catalysts and catalyst supports, for the production of polypropylene and polyethylene thermoplastic resins, which can be customized to enhance the performance of a wide range of industrial and consumer end-use applications including high pressure pipe, geomembranes, food packaging, automotive parts, medical devices, and textiles; and chemical catalysts used in a variety of industrial, environmental and consumer applications.

Grace Materials Technologies produces and sells specialty materials, coatings and sealants and related products used in coatings, consumer, industrial, pharmaceutical, and packaging applications including:

Silica-based engineered materials, including silica-based and silica-alumina-based materials, used in:

Coatings and print media applications, consisting of functional additives that provide matting effects and corrosion protection for industrial and consumer coatings, enable enhanced media and paper quality in ink jet coatings, and act as a functional filler and retention aid in paper,

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Consumer applications, as a free-flow agent, carrier or processing aid in food and personal care products; as a toothpaste abrasive and thickener; and for the processing and stabilization of edible oils and beverages;

Industrial applications, such as tires and rubber, precision investment casting, refractory, insulating glass windows, biofuels, and drying applications, fulfilling various functions such as reinforcement, high temperature binding and moisture scavenging;

Pharmaceutical, life science and related applications such as silica-based separation media and excipients and pharmaceutical intermediates combined with complementary purification products including chromatography columns and consumables and CO<sub>2</sub> adsorbents used in anesthesiology and mine safety applications; and

Packaging materials, including can and closure sealants used to seal and enhance the shelf life of can and bottle contents; coatings for cans and closures that prevent metal corrosion, protect package contents from the influence of metal and ensure proper adhesion of sealing compounds; and scavenging technologies designed to reduce off-taste and extend the shelf-life of packaged products.

Grace Construction Products produces and sells specialty construction chemicals and specialty building materials, including:

Construction Chemicals including concrete admixtures and fibers used to modify the rheology, improve the durability and enhance various other properties of concrete, mortar, masonry and other cementitious construction materials; and additives used in cement processing to improve energy efficiency in manufacturing, enhance the characteristics of finished cement and improve ease of use; and

Building materials used in both new construction and renovation/repair projects. The products protect buildings and civil engineering structures from water, vapor and air penetration. The portfolio includes waterproofing membranes for commercial and residential buildings, specialty grouts for use in waterproofing and soil stabilization applications, air and vapor barriers, and other products to solve the specialized needs of preventative and repair applications.

Global scope

We operate our business on a global scale with approximately 72% of our 2012 sales outside the United States. We conduct business in over 40 countries and in more than 40 currencies. We manage our operating segments on a global basis, to serve global markets. Currency fluctuations affect our reported results of operations, cash flows, and financial position.

Strategy Overview

Our strategy is to increase enterprise value by profitably growing our specialty chemicals and specialty materials businesses in the global marketplace and achieving high levels of efficiency. To meet these objectives, we plan to: invest in research and development activities, with the goal of introducing new high-performance, technically differentiated products and services while continuing to enhance manufacturing processes and operations; expand sales and manufacturing into emerging regions, including China, India, other economies in Asia, Eastern Europe, the Middle East and Latin America;

pursue selected acquisitions and alliances that complement our current product offerings or provide opportunities for faster penetration of desirable market or geographic segments; and continue our commitment to process and productivity improvements and cost-management, such as rigorous controls on working capital and capital spending, integration of functional support services worldwide, and programs for supply chain management, which include procurement, materials management and logistics.

## CHAPTER 11 FILING

On April 2, 2001, Grace, along with 61 of our United States subsidiaries and affiliates, filed voluntary petitions for reorganization under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for

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the District of Delaware. The cases are being jointly administered under case number 01-01139. Our non-U.S. subsidiaries and certain of our U.S. subsidiaries were not included in the bankruptcy filing.

### Background of Chapter 11

A bankruptcy filing under Chapter 11 of the United States Bankruptcy Code is generally a voluntary action taken by a debtor to resolve financial problems such as major liabilities. Chapter 11 gives a debtor the chance to restructure its finances so that it may continue to operate, provide its employees with jobs and pay its creditors. Chapter 11 can be used by debtors that are faced with large numbers of product liability lawsuits in multiple jurisdictions to provide a practical way to address the potential liabilities under the supervision of one court. A Chapter 11 filing generally stops all lawsuits against a debtor and prevents creditors from taking action to enforce claims or collect any monies or property that might be owed at the time of filing.

Chapter 11 permits a debtor to define and resolve its liabilities under a court-supervised process generally referred to as a reorganization. Unlike a Chapter 7, or liquidation bankruptcy, which results in the sale or distribution of all of the assets of a business, Chapter 11 reorganization permits a debtor to continue its normal business operations. Existing management may continue to manage the debtor's operations during the reorganization. As a debtor-in-possession, a debtor is able to do business with suppliers and customers in a routine manner. Certain other activities, including transactions outside the ordinary course of business, generally require specific approval of the Bankruptcy Court. The Chapter 11 process generally ends when a plan of reorganization for the debtor is confirmed by the Bankruptcy Court and the plan becomes effective following the satisfaction or waiver of any conditions, including the resolution of any appeals. In cases similar to ours with complex asbestos liabilities, debtors have taken several years to complete the Chapter 11 process.

### Grace Chapter 11 Filing

We voluntarily entered Chapter 11 to resolve comprehensively nearly 130,000 pending asbestos personal injury and property damage claims as well as any future demands. These claims and demands relate to past products and processes that involved asbestos, a mineral formerly used widely for many decades in building and other commercial products. Prior to 2000, we were able to resolve asbestos-related claims through direct negotiations and litigation, paying over \$2 billion in claims and legal costs over a 20-year period. In most of the personal injury lawsuits, we were one of many defendants. In 2000 and the first quarter of 2001, we experienced an unexpected 81% increase in personal injury claims, most of which we believe were unmeritorious. We also became a defendant in class action lawsuits alleging damages from ZONOLITE® Attic Insulation, a former attic insulation product. Upward trends in claims filing and settlement demands showed no sign of returning to historic levels. These unfavorable trends were exacerbated by the bankruptcy filings of several of our co-defendants in asbestos personal injury litigation. These trends greatly increased the risk that we would not be able to resolve our pending and future asbestos-related claims in the civil litigation system.

After a thorough review of these developments, our Board of Directors concluded that a federal court-supervised bankruptcy process provided the best forum to achieve fairness in resolving these claims and demands. On April 2, 2001, we, along with 61 of our United States subsidiaries and affiliates, filed voluntary petitions for reorganization under Chapter 11 of the United States Code in the United States Bankruptcy Court for the District of Delaware. Since that time, we have been subject to the jurisdiction of the Bankruptcy Court. We are currently operating as a debtor-in-possession under court protection from creditors and claimants. We believe that our bankruptcy filing will permit a comprehensive resolution of the claims against us, while preserving the inherent value of our businesses. As a consequence of our bankruptcy filing, litigation against us as of the petition date is generally stayed (subject to certain exceptions in the case of governmental authorities), and no party may take any action to realize its pre-petition claims except pursuant to an order of the Bankruptcy Court. Since our bankruptcy filing, the Bankruptcy Court has approved all motions necessary for us to conduct normal business activities. Four committees have been appointed in the bankruptcy cases, two representing asbestos claimants, a third representing other unsecured creditors and a fourth representing shareholders. These committees, a legal representative of future asbestos personal injury claimants and a legal representative of future asbestos property damage claimants, have the right to be heard on all matters that come before the Bankruptcy Court and are playing important roles in the bankruptcy cases.

With certain other proponents, we have filed in the Bankruptcy Court a joint plan of reorganization, the Joint Plan, that is designed to address all pending and future asbestos-related claims and all other pre-petition claims. The Bankruptcy Court and the United States District Court for the District of Delaware have issued orders

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confirming the Joint Plan and overruling all objections. Appeals from these orders have been filed with the United States Court of Appeals for the Third Circuit to resolve certain issues including whether certain creditors are entitled to interest at rates higher than provided for in the Joint Plan; the validity of the asbestos trust structure called for in the Joint Plan; and the classification and treatment of asbestos claims under the Joint Plan. While we have the necessary Bankruptcy Court and District Court approvals to emerge from Chapter 11 protection, our emergence will depend on the satisfaction or waiver of the remaining conditions to the effectiveness of the Joint Plan. These conditions include the payments pursuant to the Sealed Air Settlement and the Fresenius Settlement, the availability of any required exit financing and the final resolution of all appeals from the orders confirming the Joint Plan. We will continue to seek the favorable disposition of the appeals, which may require the completion of the appellate process.

If any of the appeals is resolved adversely to us and the other Joint Plan proponents, whether or not the Joint Plan has become effective, and we cannot either agree with our co-proponents on an amendment to the Joint Plan to address the adverse ruling or agree with our asbestos creditors on the terms of a new plan of reorganization, we expect that the Joint Plan would be terminated and we would resume proceedings in the Bankruptcy Court to estimate the amount of our asbestos-related liabilities.

See disclosure in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements for a description of our proposed joint plan of reorganization and a detailed discussion of our Chapter 11 cases and asbestos-related liabilities.

**PRODUCTS AND MARKETS**

**Specialty Chemicals and Materials Industry Overview**

Specialty chemicals and specialty materials are high value-added products used as catalysts, intermediates, components, protectants or additives in a wide variety of products and applications. They are generally produced in relatively small volumes (compared with commodity chemicals) and must satisfy well-defined performance requirements and specifications. Specialty chemicals and specialty materials are often critical components of end products, catalysts for the production of end products and components used in end products. Consequently, they are tailored to meet customer needs, which generally results in a close relationship between the producer and the customer.

We focus our business on the following, which we believe are important competitive factors in the specialty chemicals and specialty materials industry:

- value-added products and services, sold at competitive prices;
- customer service, including rapid response to changing customer needs;
- technological leadership (resulting from investment in research and development and technical customer service); and
- reliability of product and supply.

We believe that our focus on these competitive factors enables us to deliver increased value to customers and competitive operating margins notwithstanding the increased customer service and research and development costs that this focus entails.

**Grace Catalysts Technologies Operating Segment**

Catalysts Technologies principally applies alumina, zeolite and inorganic support technologies in the design and manufacture of products to create significant value for our diverse customer base. Our customers include major oil refiners and plastics and chemicals manufacturers. We believe that our technological expertise provides a competitive advantage, allowing us to quickly design products that help our customers create value in their markets.



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The following table sets forth Catalysts Technologies sales of similar products as a percentage of Grace total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Grace Revenue	Sales	% of Grace Revenue	Sales	% of Grace Revenue		
Refining Catalysts	\$986.8	31.3	% \$1,077.5	33.5	% \$742.0	27.8	%	
Polyolefin Catalysts and Supports	281.3	8.9	% 269.8	8.4	% 240.3	9.0	%	
Total Catalysts Technologies Revenue	\$1,268.1	40.2	% \$1,347.3	41.9	% \$982.3	36.8	%	

The following table sets forth Catalysts Technologies sales by region as a percentage of Catalysts Technologies total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Catalysts Technologies Revenue	Sales	% of Catalysts Technologies Revenue	Sales	% of Catalysts Technologies Revenue		
North America	\$382.1	30.1	% \$462.4	34.3	% \$323.4	32.9	%	
Europe Middle East Africa	543.5	42.8	% 600.2	44.5	% 438.1	44.6	%	
Asia Pacific	256.9	20.3	% 216.4	16.1	% 146.3	14.9	%	
Latin America	85.6	6.8	% 68.3	5.1	% 74.5	7.6	%	
Total Catalysts Technologies Revenue	\$1,268.1	100.0	% \$1,347.3	100.0	% \$982.3	100.0	%	

Grace Catalysts Technologies—Refining Catalysts  
FCC Catalysts

We are a global leader in developing and manufacturing fluid catalytic cracking, or FCC, catalysts and additives that enable petroleum refiners to increase profits by improving product yields and quality. Our FCC products also enable refiners to reduce emissions from their FCC units and reduce sulfur content in the gasoline that they produce.

Oil refining is a highly specialized discipline, and FCC catalysts must be tailored to meet local variations in crude oil and a refinery's product mix. We work regularly with our customers to identify the most appropriate catalyst formulations for their changing needs. We are dependent on the economics of the petroleum industry, specifically, the impacts of demand for transportation fuels and petrochemical products and crude oil supply, which affect the extent to which our customers utilize the available capacity of their refinery FCC units. In general, as a refinery utilizes more of its capacity, it needs a disproportionately greater amount of FCC catalyst. In recent years global economic growth, especially in emerging regions, has increased the demand for transportation fuels, and our FCC catalysts and additives. Other factors may reduce the demand for petroleum-based transportation fuels such as weak economic conditions and high retail gasoline and diesel fuel prices. In addition, government policy that encourages the use of non-petroleum-based fuels, discourages the use of diesel fuel or encourages greater vehicular fuel economy may negatively affect demand for our FCC catalysts and additives.

Refinery feedstocks vary in quality from sweet to heavy crude oil. Sweet crude feedstocks are typically more expensive than heavy crude and yield a greater proportion of high-value petroleum products. They also yield a lower proportion of residual oil, or "resid," which is generally the lowest-value feedstock contained in crude oil. Although heavy crude feedstocks with high resid content are typically less expensive than higher quality feedstocks, the processing of high-resid feedstocks is more difficult because of their relatively high metals, nitrogen and sulfur contamination and higher boiling points. We have designed our MIDAS<sup>®</sup> catalyst, IMPACT<sup>®</sup> catalyst, NEKTOR<sup>™</sup> catalyst, and NOMUS<sup>™</sup> catalyst product portfolios to enable our customers to increase the efficiency and yield of high-resid feedstock refining.

As a result of volatility in the price of diesel fuel as compared to gasoline, refiners desire the flexibility to adjust the yield of light cycle oil, a component of diesel fuel, from their FCC units. We have designed our MIDAS<sup>®</sup> 300 catalyst and DIESELISER<sup>™</sup> catalyst products to increase the yield of light cycle oil from refinery FCC units.

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During 2010, the People's Republic of China reduced its quotas on exports of the rare earths that we use in the manufacture of FCC catalysts, causing significant increases in global prices of rare earths in 2010 and early 2011. In response to these price increases, we developed our RESIDULTRA™ low-rare earth FCC catalyst and our REPLACER® product line of no-rare earth FCC catalysts to mitigate the higher cost of rare earths without sacrificing performance. Starting in the third quarter of 2011, global prices of rare earths declined rapidly and significantly. Since then, we have added rare earth to some of our FCC catalyst formulations when doing so improves the performance and value of the catalyst.

Many U.S. petroleum refiners have entered into consent decrees with the U.S. Environmental Protection Agency (EPA) under which the refiners have agreed to reduce emissions of nitrogen oxides and sulfur oxides. The European Union has also imposed requirements on refineries with respect to nitrogen oxides and sulfur oxides emissions. FCC units are generally the largest emitters of these pollutants in a refinery. Our additives are designed to assist refineries in meeting their obligations to reduce these pollutants. Our Super DESOX® additive reduces sulfur oxides emissions from commercial FCC units. During 2011, we also launched our two low rare earth versions of Super DESOX® additive. Our XNOX® and CP®P additives are designed to achieve reductions in nitrogen oxides emissions comparable to those obtained from capital intensive alternatives available to a refinery.

Global economic growth, especially in emerging regions, has increased the demand for plastics. As a result, our refinery customers have sought increased profits from petrochemicals by increasing the yield of propylene from their FCC units. Our ZSM-5-based technology, including our OLEFINSMAX® and OLEFINSULTRA® additive products, is designed to maximize the propylene output of FCC units.

In recent years, many countries and regions, including the U.S., European Union, Russia, India and China have imposed or increased the regulatory limitations on the sulfur content of gasoline and diesel fuel. We have developed a portfolio of products designed to assist refiners in meeting their gasoline sulfur reduction targets including our D-PRISM® and GSR® 5 additives and our SURCA® and NEPTUNE™ catalyst families.

Competition in FCC catalysts and additives is based on technology, product performance, customer service and price. Our principal FCC catalyst competitors are Albemarle and BASF which, with Johnson Matthey, are also principal competitors in FCC additives. We also have multiple regional competitors for FCC catalysts and additives.

### Hydroprocessing Catalysts

We market hydroprocessing catalysts primarily through ART, our joint venture with Chevron. We established ART to combine our technology with that of Chevron and to develop, market and sell hydroprocessing catalysts to customers in the petroleum refining industry worldwide.

As discussed above, our business is dependent on the economics of the petroleum industry. Refineries increasingly use feedstocks that have high resid content. We are a leading supplier of hydroprocessing catalysts designed for processing these feedstocks. We offer products for fixed-bed resid hydrotreating, on-stream catalyst replacement and ebullating-bed resid hydrocracking processes.

We also offer a full line of catalysts, customized for individual refiners, used in distillate hydrotreating to produce ultra-low sulfur content gasoline and diesel fuel, including our SMART CATALYST SYSTEM® and APART® catalyst system. As discussed above, regulatory limitations on the sulfur content of gasoline and diesel fuel are becoming more common. These products are designed to help refiners to reduce the sulfur content of their products. Competition in the hydroprocessing catalyst industry is based on technology, product performance, customer service and price. Criterion, Albemarle, Haldor Topsoe and Axens are our leading global competitors in hydroprocessing catalysts. We also have multiple regional competitors.

### Grace Catalysts Technologies—Polyolefin Catalysts and Catalyst Supports

We are a leading provider of catalyst systems and catalyst supports to the polyolefins industry for a variety of polyethylene and polypropylene process technologies. These types of catalysts are used for the manufacture of polyethylene and polypropylene thermoplastic resins used in products such as plastic film, high-performance plastic pipe, automobile parts, household appliances and household containers. We use a combination of proprietary catalyst and support technology, as well as technology licensed from third parties, to provide unique catalyst-based solutions to industry, and to provide a broad technology portfolio for enhancing collaboration opportunities with technology leaders.



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Our MAGNAPORE® polymerization catalyst is used to produce high performance polyethylene in the slurry loop process for pipe and film applications. Our POLYTRAK® polymerization catalyst is designed to achieve improved polypropylene performance, particularly for impact resistant applications such as automobile bumpers and household appliances.

Our DAVICAT® standard and customized catalysts offer a wide range of chemical and physical properties based on our material science technology for supported catalysts, polystyrene, herbicide, neutraceuticals and on purpose olefins. Our RANEY® nickel, cobalt and copper hydrogenation and dehydrogenation catalysts are used for the synthesis of organic compounds for the fibers, polyurethanes, engineered plastics, pharmaceuticals, sweeteners and petroleum industries.

The polyolefin catalyst and supports industry is technology-intensive and suppliers must provide products formulated to meet customer specifications. There are many manufacturers of polyolefin catalysts and supports including PQ/INEOS, Albemarle, LyondellBasell, Univation and BASF, and most sell their products worldwide.

Grace Catalysts Technologies—Manufacturing, Marketing and Raw Materials

Our Catalysts Technologies products are manufactured by a network of globally coordinated plants that are positioned to service our customers regionally. Our integrated planning organization is responsible for the effective utilization of our manufacturing capabilities.

We use a global organization of technical professionals with extensive experience in refining processes, catalyst development, and catalyst applications to market our refining catalysts and additives. These professionals work to tailor our technology to the needs of each specific customer. We generally negotiate prices for our refining catalysts because our formulations are specific to the needs of each customer and each customer receives individual attention and technical service. We sell a significant portion of our hydroprocessing catalysts through multiple-year supply agreements with our geographically diverse customer base.

We use a global direct sales force for our polyolefin catalysts and supports and chemical catalysts that seeks to maintain close working relationships with our customers. These relationships enable us to cooperate with major polymer and chemical producers to develop catalyst technologies that complement their process developments. We have geographically distributed our sales and technical service professionals to make them responsive to the needs of our geographically diverse customers. We typically operate under long-term contracts with our customers.

Seasonality does not have a significant overall effect on our Catalysts Technologies operating segment. However, sales of FCC catalysts tend to be lower in the first calendar quarter prior to the shift in production by refineries from home heating oil for the winter season to gasoline production for the summer season. FCC catalysts and ebullating-bed hydroprocessing catalysts are consumed at a relatively steady rate and are replaced regularly.

Fixed-bed hydroprocessing catalysts are consumed over a period of years and are replaced in bulk in an irregular pattern. Since our customers periodically shut down their refining processes to replace fixed-bed hydroprocessing catalysts in bulk, our hydroprocessing catalyst sales to any customer can vary substantially over the course of a year and between years based on that customer's catalyst replacement schedule.

The principal raw materials for Catalysts Technologies products include rare earths, molybdenum, caustic soda, aluminum, sodium aluminate, nickel, alumina, kaolin and cobalt. Multiple suppliers are generally available for each of these materials; however, some of our raw materials may be provided by single sources of supply. We seek to mitigate the risk of using single source suppliers by identifying and qualifying alternative suppliers or, for unique materials, by using alternative formulations from other suppliers or by passing price increases on to customers. In some instances, we produce our own raw materials and intermediates.

Prices for many of our raw materials, including metals and petroleum-based specialty and commodity materials such as resins and solvents, have been volatile in recent years. In response to increases in raw material costs, we generally take actions to mitigate the effect of higher costs including increasing prices, developing alternative formulations for our products and increasing productivity. In particular, during 2010, the People's Republic of China reduced its quotas on exports of the rare earths that we use in the manufacture of FCC catalysts, which significantly increased global prices. In response, we have implemented surcharges on certain FCC catalysts and we have taken other actions to reduce the impact of these higher costs on us and our customers.

As in many chemical businesses, we consume significant quantities of natural gas in the production of Catalysts Technologies products. World events and other economic factors have caused volatility in the price of natural gas. Increases or decreases in the cost of natural gas and raw materials can have a significant impact on our operating margins.

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## Grace Materials Technologies Operating Segment

Materials Technologies principally applies silica, zeolite, resin, rubber and latex technologies in the design and manufacture of products to create significant value for our diverse customer base. Our customers include plastics and chemicals manufacturers, producers of rigid food and beverage packaging, coatings manufacturers, consumer product manufacturers and pharmaceutical companies. We believe that our technological expertise provides a competitive advantage, allowing us to quickly design products that help our customers create value in their markets.

The following table sets forth Materials Technologies sales of similar products as a percentage of Grace total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Grace Revenue	Sales	% of Grace Revenue	Sales	% of Grace Revenue		
Engineered Materials	\$478.3	15.1	% \$500.5	15.6	% \$470.8	17.6	%	
Packaging Products	384.3	12.2	% 372.1	11.6	% 348.6	13.0	%	
Total Materials Technologies Revenue	\$862.6	27.3	% \$872.6	27.2	% \$819.4	30.6	%	

The following table sets forth Materials Technologies sales by region as a percentage of Materials Technologies total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Materials Technologies Revenue	Sales	% of Materials Technologies Revenue	Sales	% of Materials Technologies Revenue		
North America	\$174.0	20.2	% \$173.1	19.8	% \$162.8	19.9	%	
Europe Middle East Africa	362.4	41.9	% 378.6	43.4	% 353.5	43.1	%	
Asia Pacific	185.9	21.6	% 184.1	21.1	% 171.9	21.0	%	
Latin America	140.3	16.3	% 136.8	15.7	% 131.2	16.0	%	
Total Materials Technologies Revenue	\$862.6	100.0	% \$872.6	100.0	% \$819.4	100.0	%	

## Grace Materials Technologies—Silica-based Materials

We provide enabling technologies that are silica- and silica-alumina-based functional additives and process aids, such as silica gel, colloidal silica, zeolitic adsorbents, precipitated silica and silica-aluminas, for a wide variety of applications. Our product portfolio includes:

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Application	Use	Key Brands
Industrial	Reinforcing agents for rubber and tires	PERKASIL®
	Inorganic binders and surface smoothening aids for precision investment casting and refractory applications	LUDOX®
	Adsorbents for dual pane windows and industrial applications, desiccant granules, beads, powders and bags and polyurethane moisture scavengers	PHONOSORB®, PHONOSORB MTX®, SYLOBEAD®, SYLOSIV®, CRYOSIV®, SAFETYSORB®
	Chemical metal polishing aids and formulations for chemical mechanical planarization/electronics applications	LUDOX®, POLIEDGE®
	Polymer additives for producers and processors of plastic products that prevent layers of polymer film from sticking together, improve dispersal of pigments and ease removal from molds	SYLOBLOC®
	Process adsorbents used in petrochemical and natural gas processes for such applications as ethylene-cracked-gas-drying, natural gas drying and sulfur removal	SYLOBEAD®
	Toothpaste abrasives and thickening agents, free-flow agents, anticaking agents, tableting aids, cosmetic additives and flavor carriers	SYLODENT®, SYLOID® FP, SYLOBLANC®, ELFADENT®, SYLOID®, SYLOSIV®
Consumer	Edible oil refining agents, beer stabilizers and clarification aids for beer, juices and other beverages	DARACLAR®, TRISYL®
	Matting agents, anticorrosion pigments, TiO <sub>2</sub> extenders and moisture scavengers for paints and lacquers	SYLOID®, SHIELDEX®, SYLOSIV®, SYLOWHITE™
Coatings and Print Media	Additives and formulations for matte, semi-glossy and glossy ink receptive coatings on high performance ink jet papers, photo paper, and commercial wide-format print media	SYLOJET®, DURAFILL®, LUDOX®
	Paper retention aids, functional fillers, paper frictionizers	DURAFILL®, LUDOX®, REVELERIS®, REVEALX™, GRACERESOLV™
Discovery Sciences	Flash chromatography systems and consumables	VISIONHT®, VYDAC®, ALLTECH®, ALLTIMA®
	Analytical scale high performance liquid chromatography (HPLC) columns and detectors	DAVISIL®, VYDAC®, MODCOL®, SPRING®, MULTIPACKER®
	Preparative scale purification products including media, column hardware, and equipment	SYLOID® FP
	Pharmaceutical excipients and intermediates	SODASORB®
	CO <sub>2</sub> adsorbents for anesthesiology and re-breathing applications	

Our silica-based engineered materials are integrated into our customers' manufacturing processes and, when combined with our technical support, increase the efficiency and performance of their products. By working closely with our customers, we help them to respond quickly to the changing needs of brand owners and consumers. We focus on high-growth segments and seek to develop and introduce new products that add additional value to the current and future needs of our customers. For example, our customers have incorporated our products into higher resolution print media, less abrasive high cleaning toothpastes and technologies that are friendly to the environment such as water-based and VOC-compliant coatings, green tires with lower roll resistance and non-toxic anticorrosion protection. Our discovery sciences products are used in a wide range of applications, including drug discovery and purification for the healthcare, pharmaceutical and biotechnology industries, environmental analysis, forensics, petrochemical analysis and the manufacture of food, cosmetics, vitamins and biofuels. We also market

chromatography consumables and analytical and preparative columns packed with our specialty media. We can modify the base silica and surface chemistry for analytical, preparative and process-scale customers in order to enhance our product performance for their unique applications.

Our silica-based engineered materials sales are global. There are many manufacturers of engineered materials that market their products on a global basis including Evonik, PQ/INEOS, and UOP. Competition is generally based on product performance, technical service and reliability, as well as additional value-added features to address the needs of our customers, end-users and brand owners. Our discovery sciences products compete on the basis of product quality, distinct technology and customer support. Competition for these products is highly fragmented with a large number of companies that sell their products on a global and regional basis, although a number of companies, such as Waters Corporation, Agilent Technologies and Thermo-Fisher, have a substantial global position and a relatively large installed customer base.



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## Grace Materials Technologies—Packaging Products

We are a global leader in can and closure sealants that, along with our specialized can and closure coatings, we supply to the packaging industry. Our product portfolio includes:

## Products

Can sealants for rigid containers that ensure a hermetic seal between the lid and the body of beverage, food, aerosol and other cans

Sealants for metal and plastic bottle closures that are used on pry-off and twist-off metal crowns, as well as roll-on pilfer-proof and plastic closures to seal and enhance the shelf life of food and beverages in glass and plastic bottles and jars

Coatings for metal packaging that are used in the manufacture of cans and closures to protect the metal against corrosion, protect the contents against the influences of metal, ensure proper adhesion of sealing compounds to metal surfaces, and provide base coats for inks and for decorative purposes

Our packaging products are designed to address major industry trends such as lighter weight packaging, lower energy consumption, personal convenience, and highly individualized packaging. Our growth is driven by innovation of higher performing products, continuous discovery of new applications, increasing demand for sustainability and rising disposable income in emerging regions. We seek to capitalize upon our technical customer service, global infrastructure and expertise in global regulatory compliance (including food law compliance) to enhance our growth, especially in emerging regions. We also seek to develop and introduce new products that add additional value to the current and future needs of our customers, such as our introduction of products with oxygen scavenging functionality.

Our packaging products sales are global. There are many manufacturers of packaging products that market their products on a global basis including Altana, Akzo Nobel, PPG and Valspar. Competition is generally based on product performance, technical service and reliability, as well as additional value-added features to address the needs of our customers, end-users and brand owners.

## Grace Materials Technologies—Manufacturing, Marketing and Raw Materials

Our Materials Technologies products are manufactured by a network of globally coordinated plants that are positioned to service our customers regionally. Our packaging products are manufactured in both large facilities to permit economies of scale and a network of smaller operations that enable customization to local market conditions. Our integrated planning organization is responsible for the effective utilization of our manufacturing capabilities.

We use country-based direct sales forces that are dedicated to each product line and backed by application-specific technical customer service teams to market our Materials Technologies products. Our sales force seeks to develop long-term relationships with our customers and focuses on consultative sales, technical support and key account growth programs. To ensure full geographic coverage, our direct sales organization is further supplemented by a network of agents and distributors.

Seasonality does not have a significant overall effect on our Materials Technologies operating segment; however, our packaging products and some of our construction-related products such as insulated glass desiccants are affected by seasonal and weather-related factors including the consumption of beverages, the size and quality of food crops and the level of construction activity. These impacts are mitigated by the global scope of our business.

The principal raw materials for Materials Technologies products include solvents, resins, sodium silicate, latexes (including certain food-grade raw materials) and rubber. Multiple suppliers are generally available for each of these materials; however, some of our raw materials may be provided by single sources of supply. We seek to mitigate the risk of using single source suppliers by identifying and qualifying alternative suppliers or, for unique materials, by using alternative formulations from other suppliers or by passing price increases on to customers. In some instances, we produce our own raw materials and intermediates.

Prices for many of our raw materials, including specialty and commodity materials such as latex, rubbers, pigments, resins and solvents, have been volatile in recent years. In response to increases in raw material costs, we generally take actions to mitigate the effect of higher costs including increasing prices, developing alternative formulations for our products and increasing productivity.

## Key Brands

DAREX®

DAREX®, DARAFORM®, DARASEAL®, DARABLEND®, SINCERA®, CELOX®

DAREX®, APPERTA®, SISTIAGA®

As in many chemical businesses, we consume significant quantities of natural gas in the production of Materials Technologies products. World events and other economic factors have caused volatility in the price of

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natural gas. Increases or decreases in the cost of natural gas and raw materials can have a significant impact on our operating margins.

Since we manufacture a substantial portion of our packaging products in emerging regions using raw materials from suppliers in the U.S., Europe and other advanced economies, changes in the values of the currencies of these emerging regions versus the U.S. dollar and the euro may adversely affect our raw material costs and the prices we may charge for our products.

**Grace Construction Products Operating Segment**

Construction Products produces and sells specialty construction chemicals and specialty building materials. We are a supplier to the nonresidential (commercial and infrastructure) construction industry, and to a lesser extent, the residential construction and repair and restoration industries.

The following table sets forth Construction Products sales of similar products as a percentage of Grace total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Grace Revenue	Sales	% of Grace Revenue	Sales	% of Grace Revenue		
Specialty Construction Chemicals	\$680.7	21.6	% \$656.6	20.5	% \$586.8	21.9	%	
Specialty Building Materials	344.1	10.9	% 335.4	10.4	% 286.5	10.7	%	
Total Construction Products Revenue	\$1,024.8	32.5	% \$992.0	30.9	% \$873.3	32.6	%	

The following table sets forth Construction Products sales by region as a percentage of Construction Products total revenue.

(In millions)	2012		2011		2010			
	Sales	% of Construction Products Revenue	Sales	% of Construction Products Revenue	Sales	% of Construction Products Revenue		
North America	\$411.5	40.2	% \$406.3	41.0	% \$368.0	42.1	%	
Europe Middle East Africa	269.7	26.3	% 281.6	28.4	% 261.0	29.9	%	
Asia Pacific	217.5	21.2	% 198.8	20.0	% 165.0	18.9	%	
Latin America	126.1	12.3	% 105.3	10.6	% 79.3	9.1	%	
Total Construction Products Revenue	\$1,024.8	100.0	% \$992.0	100.0	% \$873.3	100.0	%	

**Grace Construction Products—Specialty Construction Chemicals**

We supply concrete admixtures and fibers used to modify the rheology, improve the durability and enhance various other properties of concrete, mortar, masonry and other cementitious construction materials; and additives used in cement processing to improve energy efficiency in manufacturing, enhance the characteristics of finished cement and improve ease of use, including the following products:

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Products	Uses	Customers	Key Brands
Concrete admixtures	Concrete admixtures and polymeric fibers used to reduce the production and in-place costs of concrete, increase the performance of concrete and improve the life cycle cost of the structure	Ready-mix and precast concrete producers, engineers and specifiers	ADVA <sup>®</sup> , STRUX <sup>®</sup> , MIRA <sup>®</sup> , POLARSET <sup>®</sup> , ECLIPSE <sup>®</sup>
Additives for cement processing	Cement additives added to the grinding stage of the cement manufacturing process to improve the energy efficiency of the plant and enhance the performance of the finished cement. Chromium reducing additives help cement manufacturers in Europe meet environmental regulations	Cement manufacturers	CBA <sup>®</sup> , SYNCHRO <sup>®</sup> , HEA2 <sup>®</sup> , TDA <sup>®</sup>
Products for architectural concrete	Products for architectural concrete include surface retarders, coatings, pigments and release agents used by concrete producers and contractors to enhance the surface appearance and aesthetics of concrete	Precast concrete producers and architects	PIERI <sup>®</sup>
Admixtures for masonry concrete	Products for masonry concrete used by block and paver producers for process efficiency and to improve the appearance, durability and water resistance of finished concrete masonry units	Masonry block manufacturers	DRY-BLOCK <sup>®</sup> , OPTEC <sup>®</sup> , QUANTEC <sup>®</sup>
Process control solutions for ready mix concrete	Electro-mechanical devices, sensors and other technologies that assist concrete producers in controlling product quality and production costs	Ready mix concrete manufacturers	VERIFI <sup>®</sup>

## Grace Construction Products—Specialty Building Materials

We supply building materials used in both new construction and renovation/repair projects. The products protect buildings and civil engineering structures from water, vapor and air penetration. The portfolio includes waterproofing membranes for commercial and residential buildings, specialty grouts for use in waterproofing and soil stabilization applications, air and vapor barriers, and other products to solve the specialized needs of preventative and repair applications including the following:

Products	Uses	Customers	Key Brands
Remedial waterproofing	Products for repair and remediation in waterproofing applications and soil stabilization	Contractors, municipalities and other owners of large infrastructure facilities	DENEFF <sup>®</sup> HYDRO ACTIVE <sup>®</sup> Cut, DENEFF <sup>®</sup> AC-400, DENEFF <sup>®</sup> SWELLSEAL <sup>®</sup> WA, DENEFF <sup>®</sup> MC-500 BITUTHENE <sup>®</sup> ,
Structural waterproofing, vapor and air barrier systems	Structural waterproofing and air barrier systems to prevent water, vapor and/or air infiltration in commercial structures, including self-adhered sheet and liquid membranes, joint sealing materials, drainage composites and waterstops.	Architects and structural engineers; specialty waterproofing and general contractors; specialty waterproofing distributors	PROCOR <sup>®</sup> , PREPRUFE <sup>®</sup> , ADPRUFE <sup>®</sup> , HYDRODUCT <sup>®</sup> , PERM-A-BARRIER <sup>®</sup> , ADCOR <sup>®</sup> ES, SILCOR <sup>®</sup>
Residential building materials	Specialty roofing membranes and flexible flashings for windows, doors, decks and	Roofing contractors, home builders and	ICE & WATER SHIELD <sup>®</sup> ,

	detail areas, including fully adhered roofing underlayments, synthetic underlayments and self-adhered flashing.	remodelers; specialty roofing distributors, lumberyards and home centers; homeowners; architects and specifiers	TRI-FLEX <sup>®</sup> , VYCOR <sup>®</sup>
Fire protection	Fire protection products spray-applied to the structural steel frame, encasing and insulating the steel and protecting the building in the event of fire.	Local contractors and specialty subcontractors and applicators; building materials distributors; industrial manufacturers; architects and structural engineers	MONOKETE <sup>®</sup>

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### Grace Construction Products—Manufacturing, Marketing and Raw Materials

In view of our diversity of customers and customer requirements, and because specialty construction chemicals and specialty building materials require intensive sales and customer service efforts, we maintain a direct sales and technical support team with sales personnel based in approximately 40 countries worldwide. This sales and support team sells products under global contracts, under U.S. or regional contracts, and on a job-by-job basis. We also use distributors in both U.S. and non-U.S. markets. We compete globally with several large construction materials suppliers, and regionally and locally with numerous smaller competitors. In recent years, the cement and concrete industry has experienced some consolidation, thereby increasing the importance of serving well our global customers. For some customer groups, such as producers and contractors, operational efficiency and total applied cost are key factors in making purchasing decisions, while for others, such as architects and engineers, product performance and design versatility are more important.

Competition for our construction products is based on product performance, technical support and service, brand name recognition in the construction industry and price. Our major global specialty construction chemicals competitors are BASF and Sika.

We seek to improve our products, adapt them for new applications and add new products through our growth and innovation processes that focus on understanding the needs of our customers, key performance indicators and research and development.

In addition to new product introductions and product enhancements, we look for growth opportunities in emerging regions where increasing construction activity, improvement in building codes, and sophistication of construction practices can accelerate demand for our construction products. We continue to expand our commercial and manufacturing capabilities in these geographic areas.

The key raw materials used in our specialty construction products are obtained from a variety of suppliers, including basic chemical and petrochemical producers. The majority of our raw materials are organic chemicals derived from olefins. We also make significant purchases of inorganic materials such as gypsum, as well as specialty materials including specialty films, papers and fibers. In most instances, these materials are available from multiple sources. Global supply and demand factors, changes in currency exchange rates, and petroleum prices have significantly impacted the price and availability of key raw materials in recent years.

The construction business is cyclical in response to economic conditions and construction demand. The construction business is also seasonal and dependent on favorable weather conditions, with a decrease in construction activity during the winter months. Demand for our specialty construction products is primarily driven by global non-residential construction activity and U.S. residential construction activity. We seek to increase profitability and minimize the impact of cyclical downturns in regional economies by introducing technically advanced high-performance products and expanding geographically. Although these strategies have been successful in reducing the impact of cyclical activity, the decline in European construction activity since 2007 has had a negative impact on our sales in Europe.

### FINANCIAL INFORMATION ABOUT INDUSTRY SEGMENTS AND GEOGRAPHIC AREAS

Disclosure of financial information about industry segments and geographic areas for 2012, 2011 and 2010 is provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 20 (Operating Segment Information) to the Consolidated Financial Statements which disclosure is incorporated herein by reference. Disclosure of risks attendant to our foreign operations is provided in this Report in Item 1A (Risk Factors).

### BACKLOG OF ORDERS

While at any given time there may be some backlog of orders, this backlog is not material in respect to our total annual sales, nor are the changes, from time to time, significant.

### INTELLECTUAL PROPERTY; RESEARCH ACTIVITIES

Competition in the specialty chemicals and specialty materials industry is often based on technological superiority and innovation. Our ability to maintain our margins and effectively compete with other suppliers depends on our ability to introduce new products based on innovative technology, as well as our ability to obtain patent or other intellectual property protection. Our research and development programs emphasize development of new products and processes,

improvement of existing products and processes and application of existing products and

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processes to new industries and uses. We conduct research in all regions, with North America and Europe accounting for the most activity.

We routinely file and obtain patents in a number of countries around the world that are significant to our businesses in order to protect our investments in innovation, research, and product development. Numerous patents and patent applications protect our products, formulations, manufacturing processes, equipment, and improvements. We also benefit from the use of trade secret information, including know-how and other proprietary information relating to many of our products and processing technologies. There can be no assurance, however, that our patents, patent applications and precautions to protect trade secrets and know-how will provide sufficient protection for our intellectual property. In addition, other companies may independently develop technology that could replicate, and thus diminish the advantage provided by, our trade secrets. Other companies may also develop alternative technology or design-arounds that could circumvent our patents or may acquire patent rights applicable to our business which might interpose some limitation on expansion of the business in the future.

Research and development expenses were approximately \$65 million, \$69 million and \$60 million in 2012, 2011 and 2010, respectively. These amounts include depreciation and amortization expenses related to research and development and expenses incurred in funding external research projects. The amount of research and development expenses relating to government- and customer-sponsored projects (rather than projects that we sponsor) was not material during these periods. Grace also conducts research and development activities with our unconsolidated affiliate, not included in the amounts above.

**ENVIRONMENT, HEALTH AND SAFETY MATTERS**

We are subject, along with other manufacturers of specialty chemicals, to stringent regulations under numerous U.S. federal, state and local and foreign environment, health and safety laws and regulations relating to the generation, storage, handling, discharge, disposition and stewardship of hazardous wastes and other materials. Environmental laws require that certain responsible parties, as defined in the relevant statute, fund remediation actions regardless of legality of original disposal or ownership of a disposal site. We are involved in remediation actions to address hazardous wastes or other materials as required by U.S. federal, state and local and foreign laws. While in Chapter 11, we generally do not participate in the funding of investigation and remediation at sites that we do not own, unless specifically approved by the Bankruptcy Court. We expect that our ultimate liability with respect to many of these sites will be determined as part of the Chapter 11 cases.

We have expended substantial funds to comply with environmental laws and regulations and expect to continue to do so in the future. The following table sets forth our expenditures in the past three years, and our estimated expenditures in 2013 and 2014, for (i) the operation and maintenance of manufacturing facilities and the disposal of wastes; (ii) capital expenditures for environmental control facilities; and (iii) site remediation:

Year (In millions)	Operation of Facilities and Waste Disposal	Capital Expenditures	Site Remediation	
2010	\$48	\$7	\$8	
2011	58	6	12	
2012	61	9	13	
2013	62	23	12	*
2014	61	16	15	*

Amounts exclude payments of claims in our Chapter 11 cases and are based on site remediation matters for which \*sufficient information is available to estimate remediation costs. We do not have sufficient information to estimate all of Grace's possible future remediation costs. As we receive new information, our estimate of remediation costs may change materially.

Additional information about our environmental remediation activities is provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 12 (Commitments and Contingent Liabilities) to the Consolidated Financial Statements.



We continuously seek to improve our environmental, health and safety performance. To the extent applicable, we extend the basic elements of the American Chemistry Council's RESPONSIBLE CARE® program to all our locations worldwide, embracing specific performance objectives in the key areas of management systems, product stewardship, employee health and safety, community awareness and emergency response, distribution, process

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safety and pollution prevention. We have implemented key elements of the RESPONSIBLE CARE® Security Code for our operations and systems. We have completed a review of our existing security (including cyber-security) vulnerability and have taken actions to enhance our security systems and protect our assets. We have undertaken certain activities to comply with the Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards, including identifying facilities subject to the standards, conducting security vulnerability assessments and developing site security plans, as necessary.

### EMPLOYEE RELATIONS

As of December 31, 2012, we employed approximately 6,500 persons, of whom approximately 2,600 were employed in the United States. Of our total employees, approximately 4,550 were salaried and 1,950 were hourly.

Approximately 750 of our manufacturing employees in the United States are represented for collective bargaining purposes by nine different local collective bargaining groups. We have operated without a labor work stoppage for more than 10 years.

We have works councils representing the majority of our European sites serving approximately 1,600 employees.

### AVAILABILITY OF REPORTS AND OTHER DOCUMENTS

We maintain an Internet website at [www.grace.com](http://www.grace.com). Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, are available, free of charge, on our website as soon as reasonably practicable after such reports are electronically filed with, or furnished to, the Securities and Exchange Commission, or SEC. These reports may be accessed through our website's investor information page. In addition, the charters for the Audit, Compensation, Nominating and Governance, and Corporate Responsibility Committees of our Board of Directors, our corporate governance guidelines and code of ethics are available, free of charge, on our website at [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/). Printed copies of the charters, governance guidelines and code of ethics may be obtained free of charge by contacting Grace Shareholder Services at 410-531-4167.

The information on our website is not, and shall not be deemed to be, a part of this report or incorporated into any other filings we make with the SEC.

Our Chief Executive Officer and Chief Financial Officer have submitted certifications to the SEC pursuant to the Sarbanes Oxley Act of 2002 as exhibits to this Report.

### EXECUTIVE OFFICERS

See Part III, Item 10 of this Report for information about our Executive Officers.

### Item 1A. RISK FACTORS

This Report, including the Financial Supplement, contains, and our other public communications may contain, forward-looking statements; that is, information related to future, not past, events. Such statements generally include the words "believes," "plans," "intends," "targets," "will," "expects," "suggests," "anticipates," "outlook," "continues" or similar expressions. Forward-looking statements include, without limitation, all statements regarding: our Chapter 11 case; expected financial positions; results of operations; cash flows; financing plans; business strategy; budgets; capital and other expenditures; competitive positions; growth opportunities for existing products; benefits from new technology and cost reduction initiatives; plans and objectives; and markets for securities. For these statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995. Like other businesses, we are subject to risks and uncertainties that could cause our actual results to differ materially from our projections or that could cause other forward-looking statements to prove incorrect. Factors that could cause actual events to materially differ from those contained in the forward-looking statements include those factors set forth below and elsewhere in this Annual Report on Form 10-K. Our reported results should not be considered as an indication of our future performance. Readers are cautioned not to place undue reliance on our projections and forward-looking statements, which speak only as of the date thereof. We undertake no obligation to publicly release any revisions to the projections and forward-looking statements contained in this document, or to update them to reflect events or circumstances occurring after the date



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of this document. In addition to general economic, business and market conditions, we are subject to other risks and uncertainties, including, without limitation, the following:

**COMPANY RISKS**

If our proposed joint plan of reorganization does not become effective, the outcome of our Chapter 11 cases could result in the substantial dilution or cancellation of Grace's outstanding common stock.

With other proponents, we have filed the Joint Plan with the Bankruptcy Court that is designed to address all pending and future asbestos-related claims and all other pre-petition claims. The Bankruptcy Court and the District Court have issued orders confirming the Joint Plan and overruling all objections. Appeals from these orders have been filed with the Third Circuit appellate court to resolve certain issues including whether certain creditors are entitled to interest at rates higher than provided for in the Joint Plan; the validity of the asbestos trust structure called for in the Joint Plan; and the classification and treatment of asbestos claims under the Joint Plan. While we have the necessary court approvals to emerge from Chapter 11 protection, our emergence will depend on the satisfaction or waiver of the remaining conditions to the effectiveness of the Joint Plan. These conditions include the payments pursuant to the Sealed Air Settlement and the Fresenius Settlement, the availability of any required exit financing and the final resolution of all appeals from the orders confirming the Joint Plan. If any of the appeals is resolved adversely to us or our co-proponents, whether or not the Joint Plan has become effective, and we cannot either agree with our co-proponents on an amendment to the Joint Plan to address the adverse ruling or agree with our asbestos creditors on the terms of a new plan of reorganization, we expect that the Joint Plan would be terminated and we would resume proceedings in the Bankruptcy Court to estimate the amount of our asbestos-related liabilities. If the amount of our asbestos-related liabilities, as determined through such proceedings or otherwise, and other liabilities exceed the assets available to satisfy such liabilities, we likely would issue shares of Grace common stock to satisfy such liabilities under a new plan of reorganization. Any such share issuance could result in substantial dilution of the interests of current Grace shareholders. Alternatively, a new plan of reorganization might provide for the cancellation of the interests of current Grace shareholders. Because of this risk of substantial dilution or cancellation, the value of Grace common stock is highly speculative and any investment in Grace common stock poses a high degree of risk.

The bankruptcy process may disrupt our business.

We have attempted to minimize the adverse effect of our Chapter 11 reorganization on our relationships with our employees, suppliers, customers and other parties. Nonetheless, our relationships with our customers, suppliers and employees may be adversely impacted and our operations could be materially and adversely affected. In addition, the continuation of our reorganization could negatively affect our ability to attract new employees and retain existing high performing employees.

Chapter 11 limits the flexibility of our management team in running our business.

While we operate our businesses as debtor-in-possession under supervision by the Bankruptcy Court, we are required to obtain the approval of the Bankruptcy Court prior to engaging in activities or transactions outside the ordinary course of business. For example, our strategic plan includes the acquisition of businesses in the specialty chemicals and specialty building materials industries. Such acquisitions generally require Bankruptcy Court approval if made by W. R. Grace & Co. or its U.S. subsidiaries and affiliates that are debtors in the Chapter 11 cases. Bankruptcy Court approval of non-ordinary course activities entails preparation and filing of appropriate motions with the Bankruptcy Court, negotiation with the various creditors' committees and other parties-in-interest and one or more hearings. The creditors' and shareholders' committees and other parties-in-interest may be heard at any Bankruptcy Court hearing and may raise objections with respect to these motions. This process delays major transactions and limits our ability to respond quickly to opportunities and events in the marketplace. Furthermore, in the event the Bankruptcy Court does not approve a proposed activity or transaction, we would be prevented from engaging in activities and transactions that we believe are beneficial to Grace.

The recorded amount of our asbestos-related liability may change, possibly materially, in future periods.

The amount of our asbestos-related liability at December 31, 2012 that is recorded in our consolidated financial statements represents our best estimate of the value of the consideration we would pay to the PI Trust and the PD Trust at our emergence from bankruptcy under the Joint Plan. We intend to periodically reevaluate the currently recorded amount and may further adjust the recorded amount prior to the effective date of the Joint Plan if we

determine that the recorded amount no longer represents a reasonable estimate of the value of the consideration payable to the Trusts under the Joint Plan. The ultimate cost of settling the asbestos-related liability

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will be based on the value of the consideration transferred to the Trusts at emergence under the Joint Plan and may vary, possibly materially, from the amount currently recorded. Any adjustment to the amount of our asbestos-related liability could have a material effect on our consolidated financial statements.

We may not be able to collect all asbestos-related insurance payments that may be due to us.

We have insurance coverage for a portion of the asbestos-related claims against us. Under the Joint Plan, these insurance policies would be assigned to the asbestos personal injury trust established under the Joint Plan. However, if the Joint Plan does not become effective, these policies would remain with us unless assigned to creditors under the terms of another plan of reorganization. The estimated insurance recovery recorded on our financial statements of \$500 million pertains only to insurance carriers with which we have asbestos settlement agreements and/or which are currently solvent, and we cannot be sure that all these amounts will be collected. In addition, the timing and amount of future payments depends on the continued solvency of the insurers and the resolution of disputes regarding coverage as well as the nature and timing of actual claims paid. If the Joint Plan does not become effective, the receipt of timely and complete payments from the insurers would be important to the success of our reorganization.

We are subject to environmental clean-up fines, penalties and damage claims that have been and continue to be costly. Grace is subject to lawsuits and regulatory actions, in connection with current and former operations (including divested businesses), for breaches of environmental laws that seek clean-up or other remedies. Grace is also subject to lawsuits and investigations by public and private parties under various environmental laws in connection with our current and former operations in various states, including with respect to off-site disposal at facilities where Grace has been identified as a potentially responsible party under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, commonly referred to as CERCLA. We are also subject to similar risks outside of the U.S.

Grace operated a vermiculite mine in Libby, Montana until 1990. Some of the vermiculite ore that was mined at the Libby mine contained natural occurrences of asbestos. Grace is cooperating with EPA to investigate the Libby vermiculite mine and the surrounding bodies of water and forest lands and determine a final remedy. During 2010, EPA began reinvestigating up to 105 facilities where vermiculite concentrate from the Libby mine was processed. We are cooperating with EPA on this reinvestigation. EPA has requested that we conduct additional remediation at eight of these facilities. It is probable that EPA will request additional remediation at other facilities. We do not have sufficient information to identify either the sites that might require additional remediation or estimate the cost of any additional remediation. We will evaluate our estimated remediation liability for other sites as we receive additional information from EPA.

We have established accounting accruals for all environmental matters for which a loss is considered to be probable and sufficient information is available to reasonably estimate the loss. We do not have sufficient information to accrue for all of Grace's environmental risks. These accruals do not include the cost to remediate the Libby vermiculite mine or costs related to any additional EPA claims, whether resulting from EPA's reinvestigation of vermiculite facilities or otherwise, which may be material but are not currently estimable. Due to these vermiculite-related matters, it is probable that Grace's ultimate liability for environmental matters will exceed Grace's current estimates by material amounts. Any liability in connection with alleged violations of environmental laws may not be discharged upon confirmation of a plan of reorganization.

We are subject to liabilities with respect to businesses that we have divested in the past.

Over the years, particularly during the 1980s and 1990s, we divested a substantial number of businesses that were not then consistent with our business strategy. With respect to many of these former businesses, we have contractually agreed to indemnify the buyer against liabilities arising prior to the closing of the transaction, including environmental liabilities. In many cases, we have also retained pension liabilities for the current and former employees of these businesses. Some of these obligations would not be discharged under the Joint Plan. We have recorded liabilities with respect to indemnification obligations that we believe are probable and estimable and retained pension liabilities. As we receive additional information or new claims, our recorded liabilities may change materially.

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We have unfunded and underfunded pension plan liabilities. We will require current and future operating cash flow to fund these liabilities. We have no assurance that we will generate sufficient cash flow to satisfy these obligations. We maintain U.S. and non-U.S. defined benefit pension plans covering employees who meet age and service requirements. Our net pension liability and cost is materially affected by the discount rate used to measure pension obligations, the longevity and actuarial profile of our workforce, the level of plan assets available to fund those obligations and the actual and expected long-term rate of return on plan assets. Significant changes in investment performance or a change in the portfolio mix of invested assets can result in corresponding increases and decreases in the valuation of plan assets, particularly equity securities, or in a change in the expected rate of return on plan assets. Assets available to fund the pension benefit obligation of the U.S. advance-funded pension plans at December 31, 2012 were approximately \$1,132 million, or approximately \$161 million less than the measured pension benefit obligation on a U.S. GAAP basis. In addition, any changes in the discount rate could result in a significant increase or decrease in the valuation of pension obligations, affecting the reported funded status of our pension plans as well as the net periodic pension cost in the following years. Similarly, changes in the expected return on plan assets can result in significant changes in the net periodic pension cost in the following years.

The global scope of our operations subjects us to the risks of doing business in foreign countries, which could adversely affect our business, financial condition and results of operations.

We operate our business on a global scale with approximately 72% of our 2012 sales outside the United States. We conduct business in over 40 countries and in more than 40 currencies. We currently have many production facilities, research and development facilities and administrative and sales offices located outside North America, including facilities and offices located in Europe, the Middle East, Africa, Asia and Latin America. We expect non-U.S. sales to continue to represent a substantial majority of our revenue. Accordingly, our business is subject to risks related to the differing legal, political, social and regulatory requirements and economic conditions of many jurisdictions. Risks inherent in non-U.S. operations include the following:

- agreements may be more difficult to enforce and receivables more difficult to collect;
- some foreign countries have adopted, and others may impose, additional withholding taxes or adopt other restrictions on foreign trade or investment, including currency exchange and capital controls;
- we may have difficulty transferring our profits or capital from foreign operations to other countries where such funds could be more profitably deployed;
- increased shipping costs, disruptions in shipping or reduced availability of freight transportation;
- foreign governments may nationalize private enterprises;
- we may experience unexpected adverse changes in export duties, quotas and tariffs and difficulties in obtaining export licenses;
- intellectual property rights may be more difficult to enforce;
- our business and profitability in a particular country could be affected by political or economic repercussions on a domestic, country specific or global level from terrorist activities and the response to such activities;
- we may be affected by unexpected adverse changes in foreign laws or regulatory requirements;
- and
- unanticipated events, such as geopolitical changes, could adversely affect these operations.

Our success as a global business will depend, in part, upon our ability to succeed in differing legal, regulatory, economic, social and political conditions by developing, implementing and maintaining policies and strategies that are effective in each location where we do business.

We are exposed to currency exchange rate changes that impact our profitability.

We are exposed to currency exchange rate risk through our U.S. and non-U.S. operations. Fluctuations in currencies of other countries, especially the euro, may materially affect our operating results. For example, changes in currency exchange rates may affect the relative prices at which we and our competitors sell products in the same region and the cost of materials used in our operations. A substantial portion of our net sales and assets are denominated in currencies other than the U.S. dollar. When the U.S. dollar strengthens against non-U.S. currencies, at a constant level of business, our reported non-U.S. sales, earnings, assets and liabilities are reduced because the non-U.S. currencies translate into fewer U.S. dollars.

We incur a currency transaction risk whenever one of our operating subsidiaries enters into either a purchase or a sales transaction using a currency different from the operating subsidiary's functional currency. Given the

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volatility of exchange rates, we may not be able to manage our currency transaction risks effectively, or volatility in currency exchange rates may expose our financial condition or results of operations to a significant additional risk. Our ability to use tax deductions to reduce future tax payments may be limited if there is a change in ownership of Grace or if Grace does not generate sufficient U.S. taxable income.

Our ability to use future tax deductions, including net operating losses and deductions for the payments contemplated in the Joint Plan (including the deferred payments), may be limited by Section 382 of the Internal Revenue Code of 1986, as amended, if we undergo an ownership change as a result of future changes in the ownership of outstanding Grace common stock. In addition, our ability to use future tax deductions is dependent on our ability to generate sufficient future taxable income in the U.S. In order to preserve these future tax deductions, the Bankruptcy Court has approved trading restrictions on Grace common stock until the effective date of a plan of reorganization. These restrictions prohibit (without the consent of Grace) a person from acquiring more than 4.75% of the outstanding Grace common stock or, for any person already holding more than 4.75%, from increasing such person's holdings. The Joint Plan provides that under certain circumstances, our Board of Directors would have the authority to impose restrictions on the transfer of Grace common stock with respect to certain 5% shareholders in order to preserve these future tax deductions.

We may be subject to claims of infringement of the intellectual property rights of others, which could hurt our business.

From time to time, we face infringement claims from our competitors or others alleging that our processes or products infringe on their proprietary technologies. Any claims that our products or processes infringe the intellectual property rights of others, regardless of the merit or resolution of the claims, could cause us to incur significant costs in responding to, defending and resolving the claims, and may divert the efforts and attention of our management and technical personnel from our business. If we are found to be infringing on the proprietary technology of others, we may be liable for damages, and we may be required to change our processes, redesign our products, pay others to use the technology or stop using the technology or producing the infringing product. Even if we ultimately prevail, the existence of the lawsuit could prompt our customers to switch to products that are not the subject of infringement suits.

While Grace is in bankruptcy, we are not permitted to pay dividends on Grace common stock.

We are not permitted to pay dividends on or repurchase shares of Grace common stock while we are in bankruptcy. Following our emergence from bankruptcy, we expect our Board of Directors to make a determination as to whether or not we will pay cash dividends and/or repurchase shares of Grace common stock. Until we commence paying dividends, investors in Grace common stock will generally only obtain an economic benefit from their shares by selling them.

### INDUSTRY RISKS

The length and depth of product and industry business cycles in our segments may result in periods of reduced sales and operating margins, and operating losses, particularly in our Grace Construction Products operating segment. Our operating segments are sensitive to the cyclical nature of the industries they serve. Our construction business is cyclical in response to economic conditions and construction demand and is also seasonal and dependent on favorable weather conditions, with a decrease in construction activity during the winter months. The U.S. residential and global commercial construction industries have experienced a significant downturn in recent years. Additionally, the uncertainty surrounding the euro and the European debt crisis have significantly affected construction spending in Europe. As a result, we have experienced reduced demand for our specialty construction products and a continuation of this downturn could result in a further reduction of sales and operating margins as well as potential impairments in our Grace Construction Products segment.

Prices for certain raw materials and energy are volatile; we may not be able to pass through increases in costs for raw materials and energy or maintain our current pricing levels, which may hurt our profitability.

We use petroleum-based materials, metals, natural gas and other materials in the manufacture of our products. Prices for these are volatile and can have a significant effect on our pricing, sales, manufacturing and supply chain strategies as we seek to maximize our profitability. In 2010 and 2011, the price of the rare earth metals used in many of our FCC catalysts increased substantially. In response, we took actions designed to mitigate the effect of these higher prices,

including implementing surcharges on the affected products, the introduction of new

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products with low and no rare earth content, and other manufacturing and supply chain actions. In the 2011 third quarter, rare earth prices reached a peak and have since declined significantly. We continue to adjust our pricing, sales, manufacturing, and supply chain strategies to maximize our profitability based on lower rare earth prices. Our ability to successfully adjust strategies in response to volatile raw material and energy prices is a significant factor in maintaining or improving our profitability. If we are unable to successfully adjust our strategies in response to volatile prices, such volatility could have a negative effect on our sales and earnings in future periods.

A substantial portion of our raw materials are commodities whose prices fluctuate as market supply and demand fundamentals change.

We attempt to manage exposure to price volatility of major commodities through:

- long-term supply contracts;
- contracts with customers that permit adjustments for changes in prices of commodity-based materials and energy;
- forward buying programs that layer in our expected requirements systematically over time; and
- limited use of financial instruments.

Although we regularly assess our exposure to raw material price volatility, we cannot always predict the prospects of volatility and we cannot always cover the risk in a cost effective manner.

We have a policy of maintaining, when available, multiple sources of supply for raw materials. However, certain of our raw materials may be provided by single sources of supply. We may not be able to obtain sufficient raw materials due to unforeseen developments that would cause an interruption in supply. Even if we have multiple sources of supply for raw materials, these sources may not make up for the loss of a major supplier.

We spend large amounts of money for environmental compliance in connection with our current and former operations.

As a manufacturer of specialty chemicals and specialty materials, we are subject to stringent regulations under numerous U.S. federal, state, local and foreign environmental, health and safety laws and regulations relating to the generation, storage, handling, discharge, disposition and stewardship of hazardous wastes and other materials. We have expended substantial funds to comply with such laws and regulations and have established a policy to minimize our emissions to the environment. Nevertheless, legislative, regulatory and economic uncertainties (including existing and potential laws and regulations pertaining to climate change) make it difficult for us to project future spending for these purposes and if there is an acceleration in new regulatory requirements, we may be required to expend substantial additional funds to remain in compliance.

We work with dangerous materials that can injure our employees, damage our facilities and disrupt our operations. Some of our operations involve the handling of hazardous materials that may pose the risk of fire, explosion, or the release of hazardous substances. Such events could result from terrorist attacks, natural disasters, or operational failures, and might cause injury or loss of life to our employees and others, environmental contamination, and property damage. These events might cause a temporary shutdown of an affected plant, or portion thereof, and we could be subject to penalties or claims as a result. A disruption of our operations caused by these or other events could have a material adverse effect on our results of operations.

Some of our employees are unionized, represented by workers' councils or employed subject to local laws that are less favorable to employers than the laws in the United States.

As of December 31, 2012, we had approximately 6,500 global employees. Approximately 750 of our approximately 2,600 U.S. employees are unionized. In addition, a large number of our employees are employed in countries in which employment laws provide greater bargaining or other rights to employees than the laws in the United States. Such employment rights require us to work collaboratively with the legal representatives of the employees to effect any changes to labor arrangements. For example, most of our employees in Europe are represented by workers' councils that have co-determination rights on any changes in conditions of employment, including salaries and benefits and staff changes, and may impede efforts to restructure our workforce. A strike, work stoppage or slowdown by our employees or significant dispute with our employees, whether or not related to these negotiations, could result in a significant disruption of our operations or higher ongoing labor costs.



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## Item 1B. UNRESOLVED STAFF COMMENTS

None.

## Item 2. PROPERTIES

We operate manufacturing plants and other facilities (including office, warehouse, labs and other service facilities) throughout the world. Some of these plants and facilities are shared by our operating segments. We own all of our major manufacturing plants. We consider our major operating properties to be in good operating condition and suitable for their current use. We believe that, after taking planned expansion into account, the productive capacity of our plants and other facilities is generally adequate for current operations. The table below summarizes our facilities by operating segment and region:

	Number of Facilities*					Total
	North America	Europe Middle East Africa	Asia Pacific	Latin America		
Catalysts Technologies	8	3	1	—		12
Materials Technologies	6	10	9	4		29
Construction Products	18	18	20	8		64

\* Shared facilities are counted in all applicable operating segments.

Our largest Catalysts Technologies facilities are located in Baltimore, Maryland; Lake Charles, Louisiana; and Worms, Germany.

Our largest Materials Technologies facilities are located in Baltimore, Maryland, and Worms, Germany.

Our largest Construction Products facilities are located in Cambridge, Massachusetts, and Mount Pleasant, Tennessee.

Because this operating segment's products generally have short shelf lives and must be delivered to numerous job sites, Construction Products requires a greater number of facilities to service our customers than Catalysts Technologies and Materials Technologies. Also, these facilities are generally smaller and less capital intensive than our Catalysts Technologies and Materials Technologies facilities. For information on our net properties and equipment by region and country, see disclosure set forth in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 20 (Operating Segment Information) to our Consolidated Financial Statements, which disclosure is incorporated herein by reference.

Our corporate headquarters is in Columbia, Maryland, and we also lease and operate a shared services facility in Manila, Philippines.

## Item 3. LEGAL PROCEEDINGS

## CHAPTER 11 PROCEEDINGS

Disclosure provided in this Report in Item 1 (Business) under the caption "Chapter 11 Filing" and in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 1 (Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies under the caption "Voluntary Bankruptcy Filing"), Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements is incorporated herein by reference.

## ASBESTOS LITIGATION

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information) and Note 3 (Asbestos-Related Litigation) to the Consolidated Financial Statements is incorporated herein by reference.

## ENVIRONMENTAL INVESTIGATIONS AND CLAIMS

Disclosure provided in this Report in Item 1 (Business) under the caption "Environment, Health and Safety Matters" and Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 12

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(Commitments and Contingent Liabilities under the caption "Environmental Remediation") to the Consolidated Financial Statements is incorporated herein by reference.

**SETTLEMENT RELATED TO FORMER PACKAGING AND MEDICAL CARE BUSINESSES**

In September 2000, Grace was named in a purported class action suit filed in California Superior Court for the County of San Francisco alleging that the 1996 reorganization involving a predecessor of Grace and Fresenius Medical Care Holdings, Inc. and the 1998 reorganization involving a predecessor of Grace and Sealed Air Corporation were fraudulent transfers (Abner, et al., v. W. R. Grace & Co., et al.). The suit is alleged to have been brought on behalf of all individuals who then had lawsuits on file asserting personal injury or wrongful death claims against any of the defendants. After Abner, and prior to the Chapter 11 filing, two other similar class actions were filed. These lawsuits have been stayed as a result of Grace's Chapter 11 filing. The Bankruptcy Court authorized the Official Committee of Asbestos Personal Injury Claimants and the Official Committee of Asbestos Property Damage Claimants to proceed with claims against Sealed Air and Fresenius on behalf of Grace's bankruptcy estate. In November 2002, Sealed Air and Fresenius each announced that they had reached agreements in principle with these committees to settle asbestos, successor liability and fraudulent transfer claims related to such transactions. Under the terms of the Joint Plan and the Fresenius Settlement and the Sealed Air Settlement, each settlement, as subsequently revised and subject to certain conditions, Fresenius and Cryovac, Inc., a wholly-owned subsidiary of Sealed Air, would make certain payments upon the effectiveness of the Joint Plan. These payments are described in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information-Plans of Reorganization) to the Consolidated Financial Statements and such description is incorporated herein by reference. These settlements are an integral part of the Joint Plan.

**TAX CLAIMS**

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 9 (Income Taxes) to the Consolidated Financial Statements is incorporated herein by reference.

**OTHER CLAIMS RECEIVED PRIOR TO THE CHAPTER 11 CLAIMS BAR DATE**

Disclosure provided in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 2 (Chapter 11 Information under the captions "Plans of Reorganization—Other Claims" and "Claims Filings") to the Consolidated Financial Statements is incorporated herein by reference.

**Item 4. MINE SAFETY DISCLOSURES**

Information concerning mine safety violations or other regulatory matters required by Section 1503(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 104 of Regulation S-K (17 CFR 229.104) is included in Exhibit 95 to this Report.

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PART II

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

Except as provided below, the disclosure required by this Item appears in this Report in: Item 6 (Selected Financial Data); under the heading "Selected Financial Data" opposite the caption "Other Statistics—Common shareholders of record" in the Financial Supplement; and Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement in Note 16 (Shareholders' Equity) and Note 23 (Quarterly Summary and Statistical Information (Unaudited) opposite the caption "Market price of common stock") to the Consolidated Financial Statements, and such disclosure is incorporated herein by reference.

SHAREHOLDER RIGHTS AGREEMENT

On March 31, 1998, we paid a dividend of one Preferred Stock Purchase Right on each share of Grace common stock. Subject to our prior redemption for \$.01 per right, rights will become exercisable on the earlier of:

• 10 days after an acquiring person, comprised of an individual or group, has acquired beneficial ownership of 20% or more of the outstanding Grace common stock or

• 10 business days (or a later date fixed by the Board of Directors) after an acquiring person commences (or announces the intention to commence) a tender offer or exchange offer for beneficial ownership of 20% or more of the outstanding Grace common stock.

Until these events occur, the rights will automatically trade with the Grace common stock, and separate certificates for the rights will not be distributed. The rights do not have voting or dividend rights.

Generally, each right not owned by an acquiring person:

• will initially entitle the holder to buy from Grace one hundredth of a share of the Grace Junior Participating Preferred Stock, at an exercise price of \$100, subject to adjustment;

• will entitle such holder to receive upon exercise, in lieu of shares of Grace junior preferred stock, that number of shares of Grace common stock having a market value of two times the exercise price of the right; and

• may be exchanged by Grace for one share of Grace common stock or one hundredth of a share of Grace junior preferred stock, subject to adjustment.

Generally, if there is an acquiring person and we are acquired, each right not owned by an acquiring person will entitle the holder to buy a number of shares of common stock of the acquiring company having a market value equal to twice the exercise price of the right.

Each share of Grace junior preferred stock will be entitled to a minimum preferential quarterly dividend payment of \$1.00 per share but will be entitled to an aggregate dividend equal to 100 times the dividend declared per share of Grace common stock whenever such dividend is declared. In the event of liquidation, holders of Grace junior preferred stock will be entitled to a minimum preferential liquidation payment of \$100 per share but will be entitled to an aggregate payment equal to 100 times the payment made per share of Grace common stock. Each share of Grace junior preferred stock will have 100 votes, voting together with the Grace common stock. Finally, in the event of any business combination, each share of Grace junior preferred stock will be entitled to receive an amount equal to 100 times the amount received per share of Grace common stock. These rights are protected by customary antidilution provisions.

The terms of the rights may be amended by the Board of Directors without the consent of the holders of the rights.

The rights, which will remain outstanding under the proposed Joint Plan, expire on March 30, 2018.

This summary of the rights does not purport to be complete and is qualified in its entirety by reference to the Rights Agreement, which has been filed with the SEC.

DIVIDENDS ON GRACE COMMON STOCK

We are not permitted to pay dividends on or repurchase shares of Grace common stock while we are in bankruptcy and have not paid dividends since the filing of our bankruptcy petitions in 2001. Following our

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emergence from bankruptcy, we expect our Board of Directors to make a determination as to whether or not we will pay cash dividends and/or repurchase shares of Grace common stock.

**STOCK TRANSFER RESTRICTIONS**

In order to preserve significant tax benefits which are subject to elimination or limitation in the event of a change in control (as defined by the Internal Revenue Code of 1986, as amended) of Grace, the Bankruptcy Court has approved trading restrictions on Grace common stock until the effective date of a plan of reorganization. These restrictions prohibit (without our consent) a person from acquiring more than 4.75% of the outstanding Grace common stock or, for any person already holding more than 4.75%, from increasing such person's holdings. This summary of the stock transfer restrictions does not purport to be complete and is qualified in its entirety by reference to the order of the Bankruptcy Court, which has been filed with the SEC.

Also, in order to preserve these tax assets in the event of a change in control (as defined by the Internal Revenue Code of 1986, as amended) of Grace after emergence from Chapter 11, the Joint Plan provides that under certain circumstances, the Board of Directors would have the authority to impose restrictions on the transfer of Grace common stock with respect to certain 5% shareholders. These restrictions would generally not limit the ability of a person that holds less than 5% of Grace common stock after emergence to either buy or sell stock on the open market.

**Item 6. SELECTED FINANCIAL DATA**

The disclosure required by this Item appears in the Financial Supplement under the heading "Selected Financial Data" which disclosure is incorporated herein by reference.

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

The disclosure required by this Item appears in the Financial Supplement under the heading "Management's Discussion and Analysis of Financial Condition and Results of Operations" which disclosure is incorporated herein by reference.

**Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

**Market Risk**

Our debt obligations, global operations, and our raw materials and energy requirements expose us to various market risks. We use derivative financial instruments to mitigate certain market risks. The following is a discussion of our primary market risk exposures, how those exposures are managed, and certain quantitative data pertaining to our market risk-sensitive instruments.

**Interest Rate Risk**

Interest rate fluctuations directly affect interest expense and cash to be paid out in the form of interest payments on variable-rate debt, and can potentially lead to changes in the market value of the associated variable-rate debt. We have \$500.0 million of outstanding pre-petition variable-rate borrowings under bank credit agreements, and interest is accrued on this debt based on the prime rate. Due to our Chapter 11 filing, interest accrued on pre-petition debt is added to the principal balance. As of December 31, 2012 and 2011, total interest accrued on this debt and added to the \$500.0 million principal was \$437.2 million and \$407.3 million, respectively. If the prime rate were to vary in the near-term by one percentage point, the effect would be to increase or decrease interest expense and accrued interest on outstanding principal by approximately \$9.6 million over the twelve-month period ending December 31, 2013.

We do not currently use derivative instruments to mitigate interest rate risk.

**Currency Exchange Rate Risk**

Because we do business in over 40 countries, our results of operations are exposed to fluctuations in currency exchange rates. We seek to minimize exposure to these fluctuations by matching revenue streams in volatile currencies with expenditures in the same currencies, but it is not always possible to do so. From time to time, we



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use financial instruments such as currency forward contracts, options, or combinations of the two to reduce the risk of certain specific transactions. However, we do not have a policy of hedging all exposures, because management does not believe that such a level of hedging would be cost-effective. We do not hedge translation exposures that are not expected to affect cash flows in the near-term. Significant uses of derivatives to mitigate the effects of changes in currency exchange rates are as follows:

In November 2007, we executed intercompany loans in the aggregate amount of €250 million between our principal U.S. operating subsidiary and a newly established German subsidiary as part of a legal restructuring. In conjunction with the loans, our U.S. subsidiary entered into a series of currency forward contracts in order to fix the dollar/euro exchange rate that will apply to convert the euro principal payments to dollars. The forward contracts are aligned with the anticipated payment dates of the intercompany loans, which extend through November 2013. The total amount outstanding under the intercompany loans was €194.5 million as of December 31, 2012 (approximately \$256.5 million). Currency fluctuations on these loans and the related forward contracts are recorded as components of operating results.

The following tables provide information about our significant currency forward exchange agreements as of December 31, 2012 and 2011, specifically, the notional, or contract, amounts (in millions of U.S. dollars), and weighted average exchange rates (U.S. dollars to euros) by expected (contractual) maturity dates. These notional amounts generally are used to calculate the contractual payments to be exchanged under the contract. The fair values represent the fair value of the derivative contracts, and are presented as other assets or other liabilities and allocated between current and non-current, as appropriate, in the Consolidated Balance Sheets.

	Euro Forward Contracts—December 31, 2012 Expected Maturity Date		Fair Value
Currency Forward Exchange Agreements	2013		
Contract amount	\$252.5		\$(4.9)
Average contractual exchange rate	1.30		N/A

	Euro Forward Contracts—December 31, 2011 Expected Maturity Date			
	2012	2013	Total	Fair Value
Currency Forward Exchange Agreements				
Contract amount	\$267.7	\$72.9	\$340.6	\$20.1
Average contractual exchange rate	1.37	1.46	1.39	N/A

**Commodity Price Risk**

We operate in markets where the prices of raw materials and energy are commonly affected by cyclical movements of the economy and other economic factors. The principal raw materials used in our products include rare earths, molybdenum, sodium silicate, olefins, resins, caustic, aluminum, sodium aluminate, rubber, alumina, nickel, cobalt carbonate, kaolin, gypsum and latices. Natural gas is the largest single energy source that we purchase. These commodities are generally available to be purchased from more than one supplier. In order to minimize the risk of increasing prices on certain raw materials and energy, we use a centralized supply chain organization for procurement in order to improve purchasing activities. We have a risk management committee to review proposals to hedge purchases of raw materials, energy and currency.

We have implemented a risk management program under which our goal is to hedge natural gas and aluminum supply in a way that provides protection against price volatility of the natural gas and aluminum markets. In order to mitigate volatile natural gas and aluminum prices, we have entered into fixed price swaps to hedge a portion of our U.S. natural gas and aluminum requirements.

The following tables provide information about our commodity derivatives. For natural gas commodity derivatives, contract volumes, or notional amounts, are presented in millions of MMBtu (million British thermal units), weighted average contract prices are presented in U.S. dollars per million MMBtu, and the total contract amount and fair value are presented in millions of U.S. dollars. For aluminum commodity derivatives, contract volumes, or notional amounts, are presented in millions of pounds, weighted average contract prices are presented in U.S. dollars per pound, and the total contract amount and fair value are presented in millions of U.S. dollars. The fair values of the

commodity swaps derivative contracts represent the excess of the variable price (market price) over the fixed price (pay price) multiplied by the nominal contract volumes. All commodity derivative instruments mature within twelve months.

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Type of Contract	Commodity Derivatives—December 31, 2012			
	Contract Volumes	Weighted Average Price	Total Contract Amount	Fair Value
Natural gas swaps	2.8	\$3.60	\$10.2	\$(0.3 )
Aluminum swaps	3.0	\$0.96	\$2.8	\$0.1

Type of Contract	Commodity Derivatives—December 31, 2011			
	Contract Volumes	Weighted Average Price	Total Contract Amount	Fair Value
Natural gas swaps	3.1	\$4.21	\$13.1	\$(3.3 )
Aluminum swaps	3.3	\$1.09	\$3.6	\$(0.5 )

The fair value of commodity swaps derivative contracts is presented as other assets or other liabilities and allocated between current and non-current, as appropriate, in the Consolidated Balance Sheets.

We have also entered into forward contracts for natural gas and aluminum that qualify for the normal purchases and normal sales exception from Accounting Standards Codification ("ASC") 815 "Derivatives and Hedging" as they do not contain net settlement provisions and result in physical delivery of natural gas and aluminum from suppliers.

Therefore, the fair values of these contracts are not recorded in our Consolidated Balance Sheets.

See Note 8 for additional disclosure around market risk.

#### Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The disclosure required by this Item appears in the Financial Supplement which disclosure is incorporated herein by reference.

#### Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

#### Item 9A. CONTROLS AND PROCEDURES

Except as provided below, the disclosure required by this Item appears in the Financial Supplement under the heading "Management's Report on Financial Information and Internal Controls" which disclosure is incorporated herein by reference.

There was no change in Grace's internal control over financial reporting during the quarter ended December 31, 2012 that has materially affected, or is reasonably likely to materially affect, Grace's internal control over financial reporting.

#### Item 9B. OTHER INFORMATION

None.

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## PART III

## Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Our directors and executive officers as of December 31, 2012, are listed below. Our Certificate of Incorporation provides for the division of the Board of Directors into three classes, each to serve for a three-year term or until their respective successors are elected. In view of the Chapter 11 filing, the directors are continuing to serve beyond the expiration of their respective terms. Executive officers are elected to serve until the next annual meeting of the Board of Directors or until their respective successors are elected.

Name and Age*	Office	First Elected
John F. Akers (78)	Class II Director	05/09/97
H. Furlong Baldwin (81)	Class I Director	01/16/02
Ronald C. Cambre (74)	Class III Director	09/01/98
	Class II Director	09/08/04
Alfred E. Festa (53)	Chairman of the Board	01/01/08
	Chief Executive Officer	06/01/05
Marye Anne Fox (65)	Class I Director	05/10/96
Janice K. Henry (61)	Class I Director	01/18/12
Jeffrey N. Quinn (54)	Class II Director	11/07/12
	Class I Director	11/01/06
Christopher J. Steffen (71)	Lead Independent Director	06/28/12
Mark E. Tomkins (57)	Class III Director	09/06/06
D. Andrew Bonham (52)	Vice President & President, Grace Construction Products	09/11/07
Hudson La Force III (48)	Senior Vice President & Chief Financial Officer	04/01/08
Gregory E. Poling (57)	President and Chief Operating Officer	11/03/11
Mark A. Shelnitz (54)	Vice President, General Counsel & Secretary	04/27/05
Pamela K. Wagoner (49)	Vice President & Chief Human Resources Officer	07/13/09

\* John J. Murphy and Thomas A. Vanderslice resigned from the Board of Directors and all committees effective February 23, 2012 and June 28, 2012, respectively.

Mr. Akers served as Chairman of the Board and Chief Executive Officer of International Business Machines Corporation from 1985 until his retirement in 1993. He was a director of Lehman Brothers Holdings, Inc. until 2012 and was a director of The New York Times Company and PepsiCo, Inc. until 2007. Mr. Akers brings to the Board his experience as chief executive of a global information technology company and his extensive expertise in corporate leadership, financial management, information technology and global business operations. Mr. Akers also has substantial governance and oversight experience developed as a director of multiple public companies.

Mr. Baldwin served as a director of Mercantile Bankshares Corporation from 1970 to 2003, as Chairman of the Board from 1984 to 2003 and as President and Chief Executive Officer from 1976 to 2001. Mr. Baldwin served as Chairman of NASDAQ OMX Group, Inc. until 2012 and served as a director of Platinum Underwriters Holdings, Ltd. and Allegheny Energy Inc. until 2011. Mr. Baldwin brings to the Board the management and governance knowledge he developed as a banking chief executive and public company board member and his extensive experience in banking and finance including significant knowledge of the business development, acquisitions, capital raising, operations and financial issues facing large corporations. Mr. Baldwin also has substantial governance and oversight experience developed as a director of multiple public companies.

Mr. Cambre is retired Chairman of the Board and Chief Executive Officer of Newmont Mining Corporation. He joined Newmont as Vice Chairman and CEO in 1993 and retired as CEO in 2000 and as Chairman in 2001. Mr. Cambre served as Chairman of the Board of McDermott International, Inc. and as a director of Cliffs Natural Resources Inc. until 2011. Mr. Cambre brings to the Board his extensive background in leadership and management at the most senior level in major corporations, his deep understanding of international business and global energy issues

and his governance and oversight experience developed as a director of multiple public companies.

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Mr. Festa joined Grace in 2003 and was elected Chief Executive Officer in 2005 and Chairman in 2008. He served as President from 2003 to 2011 and Chief Operating Officer from 2003 to 2005. Prior to joining Grace, Mr. Festa was a partner of Morganthaler Private Equity Partners, a venture capital and buyout firm, from 2002 to 2003. From 2000 to 2002, he was with ICG Commerce, Inc., a private company providing on-line procurement services, where he last served as President and Chief Executive Officer. Prior to that, he served as Vice President and General Manager of AlliedSignal's (now Honeywell) performance fibers business. Mr. Festa is a director of NVR, Inc., a publicly held home builder. Mr. Festa brings to the Board his substantial leadership, sales and marketing, international business and venture capital experience. As CEO, Mr. Festa brings to the Board his intimate knowledge of all aspects of Grace's operations and strategy.

Dr. Fox served as Chancellor of the University of California San Diego (UCSD) and Distinguished Professor of Chemistry at that institution from 2004 until her retirement in 2012. She currently serves as Chancellor Emeritus and Distinguished Professor of Chemistry and Biotechnology at UCSD. She was previously Chancellor of North Carolina State University and Distinguished University Professor of Chemistry. Dr. Fox has served as the Co-Chair of the National Academy of Sciences' Government-University-Industry Research Roundtable and she served on President Bush's Council of Advisors on Science and Technology. She has served as the Vice Chair of the National Science Board. Dr. Fox is a director of Bridgepoint Education, Inc. and Red Hat, Inc. and served as a director of Pharmaceutical Product Development, Inc. until 2008 and Boston Scientific Corporation until 2010. With her chemistry background, strong financial and operational experience leading large and successful educational institutions and service as an outside director to public and private boards, Dr. Fox brings to the Board a full understanding of Grace's products and research and development efforts, substantial experience in overseeing corporate management and finance and high-level knowledge of operations and strategic planning for large institutions.

Ms. Henry served as Senior Vice President and Treasurer until 2006 and Chief Financial Officer until 2005 of Martin Marietta Materials, Inc.; after her retirement in 2006, she provided consulting services to Martin Marietta Materials, Inc. until 2009. Ms. Henry is also a director of Cliffs Natural Resources Inc. Ms. Henry served as a director of North American Galvanizing and Coatings, Inc. until its acquisition in 2010 by AZZ Incorporated and as a director and chair of the audit committee of Inco Limited until its acquisition in 2006 by CVRD. Ms. Henry brings to the Board her substantial experience in financial and accounting leadership, including acquisitions and capital structuring, gained as an officer of a major chemicals and materials manufacturer. She also has significant governance and oversight experience from her service on public and private corporate boards.

Mr. Quinn is Chairman and Chief Executive Officer of The Quinn Group LLC, a diversified holding company with investments in the industrial, active lifestyle, and entertainment sectors, and Quinpario Partners LLC, an investment and operating firm in the performance materials and specialty chemical sectors, each of which he formed in July 2012. Mr. Quinn served as President and Chief Executive Officer from 2004 and Chairman from 2006 of Solutia Inc., a global leader in specialty chemicals until its sale in July 2012 to Eastman Chemical Company. Mr. Quinn joined Solutia as an executive officer in January 2003, serving as Senior Vice President, General Counsel, Secretary and, from June 2003, Chief Restructuring Officer. Solutia filed for Chapter 11 bankruptcy protection in December 2003 and emerged from bankruptcy protection in February 2008. Prior to that, Mr. Quinn served as Executive Vice President of Premcor, Inc. and Senior Vice President, General Counsel and Secretary of Arch Coal Inc. Mr. Quinn is also a director of Tronox Limited and MEMC Electronic Materials, Inc. Mr. Quinn brings to the board his extensive senior level executive leadership experience in diverse industries and his broad experience in a wide range of functional areas, including strategic planning, mergers and acquisitions, human resources, and legal and governmental affairs. He also has extensive experience in board processes and governance.

Mr. Steffen most recently served as Vice Chairman of Citicorp and its principal subsidiary, Citibank N.A., until 1996. He is currently a private investor. Mr. Steffen is a director of Viasystems Group, Inc. and Platinum Underwriters Holdings, Ltd. and until 2012, served as a director of Accelrys, Inc. Mr. Steffen has served as Senior Vice President and Chief Financial Officer of Eastman Kodak and Executive Vice President and Chief Financial and Administrative Officer and director of Honeywell. As Lead Independent Director, Mr. Steffen presides at all executive sessions of the Board. With his background as a financial and operational leader with companies with global

operations in various industries, Mr. Steffen brings to the Board his extensive international business expertise and knowledge of financial matters and financial reporting. Mr. Steffen also has substantial governance and oversight experience developed as a director of multiple public companies.

Mr. Tomkins most recently served as Senior Vice President and Chief Financial Officer of Innovene, a petrochemical and oil refining company controlled by BP that is now part of the INEOS Group, from 2005 until 2006.

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He served as Chief Financial Officer of Vulcan Materials Company from 2001 to 2005 and CFO of Great Lakes Chemical (now Chemtura) from 1998 to 2001. Prior to joining Great Lakes Chemical, Mr. Tomkins held various mid- and upper-level financial positions with AlliedSignal (now Honeywell) and Monsanto Company. Mr. Tomkins is a certified public accountant. Mr. Tomkins is a director of Elevance Renewable Sciences Inc., a privately held renewable polymer and energy company and, until 2012, he served as a director of CVR Energy, Inc. He is currently a corporate consultant and private investor. With his background as a Chief Financial Officer of multiple public companies and an auditor, Mr. Tomkins brings to the Board his intimate knowledge of the global chemicals and petroleum industry and his experience overseeing finance and business development in major corporations. Mr. Tomkins also has substantial governance and oversight experience developed as a director of multiple public companies.

Messrs. Bonham, Poling, and Shelnitz have been actively engaged in Grace's business for the past five years.

Mr. La Force joined Grace in 2008 as Senior Vice President and Chief Financial Officer. Prior to joining Grace, he was Chief Operating Officer and Senior Counselor to the Secretary at the U.S. Department of Education. Prior to entering public service in 2005, Mr. La Force held general management and financial management positions of increasing responsibility at Dell Inc. and AlliedSignal (now Honeywell). Mr. La Force is a member of the advisory board of Madison Capital Partners, a Chicago-based private equity firm.

Ms. Wagoner joined Grace in 2009 as Vice President and Chief Human Resources Officer. From 2003 until she joined Grace, she was Senior Vice President, Human Resources at Host Hotels & Resorts, Inc.

**Audit Committee**

We have a standing Audit Committee established in accordance with the provisions of the Securities Exchange Act of 1934, as amended. The Committee members are John F. Akers, H. Furlong Baldwin, Ronald C. Cambre, Marye Anne Fox, Janice K. Henry, Jeffry N. Quinn, Christopher J. Steffen and Mark E. Tomkins, each of whom meets the independence standards of the SEC and New York Stock Exchange. Mr. Tomkins serves as Chair of the Audit Committee. The Board of Directors has determined that all Audit Committee members are audit committee financial experts as defined by SEC regulations. A complete description of the responsibilities of the Audit Committee is set forth in the Grace Audit Committee Charter which is available on the Internet at [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/).

**Other Committees**

We have standing Nominating and Governance, Compensation and Corporate Responsibility Committees. The members of each of these committees are John F. Akers, H. Furlong Baldwin, Ronald C. Cambre, Marye Anne Fox, Janice K. Henry, Jeffry N. Quinn, Christopher J. Steffen and Mark E. Tomkins, each of whom meets the independence standards of the New York Stock Exchange. Mr. Steffen serves as Chair of the Nominating and Governance Committee, Mr. Akers serves as Chair of the Compensation Committee and Dr. Fox serves as Chair of the Corporate Responsibility Committee. A complete description of the responsibilities of the Board committees is set forth in their respective committee charters which are available on the Internet at [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/).

**Section 16(a) Beneficial Ownership Reporting Compliance**

Under Section 16 of the Securities Exchange Act of 1934, as amended, our directors, certain of our officers, and beneficial owners of more than 10% of the outstanding Grace common stock are required to file reports with the SEC concerning their ownership of and transactions in Grace common stock or other Grace securities; these persons are also required to furnish us with copies of these reports. Based upon the reports and related information furnished to us, we believe that all such filing requirements were complied with in a timely manner during and with respect to 2012.

**Code of Ethics for Principal Officers**

The Board of Directors and the Audit Committee have adopted Business Ethics and Conflicts of Interest policies, which apply to all of our directors, officers, and employees, including our principal officers. These policies are accessible through our Internet website, [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/), and are available in hard copy, free of charge, by contacting Grace Shareholder Services at 410-531-4167. We granted no waivers to these policies during 2012. We intend to promptly post on our website any amendments or waivers to these policies





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affecting any principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions.

## Item 11. EXECUTIVE COMPENSATION

## Compensation Discussion and Analysis

## Executive Summary

The principle components of pay under our executive compensation program are annual base salary, annual cash incentive awards and long-term incentive awards, which consisted solely of stock options in 2012. We use this mix of fixed and variable pay components with different payout forms (cash and stock options) to reward annual and sustained performance.

The measures used by the Grace Compensation Committee to assess our performance for purposes of executive officer annual compensation are based on our annual operating plan goals and are directly tied to the pay outcomes of our executive officers. For the 2012 Annual Incentive Compensation Plan (AICP), we used the following metrics to quantify performance:

**Adjusted Earnings Before Interest and Taxes (EBIT) (weighted 75%)** This metric is the primary performance measure for the AICP and has been over the past several years.

**Working Capital Days (weighted 25%)** This metric measures the change in the average Working Capital Days for the three months ending December 31, 2012, from the average Working Capital Days for the prior year quarter. Working Capital Days is the sum of the average days that accounts receivable from sales are outstanding before collection and the average days inventory is held before sale less the average days accounts payable are outstanding before payment. This is a new performance measure in the AICP, replacing Adjusted Operating Cash Flow. This metric was added to assess operational excellence and increased cash flow as Grace continues to integrate its operations on a global basis. This is the only change we made to the AICP for 2012.

The 2012 AICP targets are set forth below:

	2012 AICP Threshold Performance	2012 AICP Target Performance	2012 AICP Maximum Performance	2012 Actual Performance
Adjusted EBIT (in millions)	\$420.5	\$525.6	\$709.6	\$517.4
Working Capital Days	64.2	53.5	34.8	58.6

Based on our business model and growth initiatives, we believe these measures best reflect our ability to profitably grow our businesses and maximize operational efficiency and cash flow. They also allow us to provide meaningful incentives that are competitive in our industry, encouraging our executives to drive sustained results and long-term shareholder value.

## CEO Pay At-A-Glance

Mr. Festa's Total Direct Compensation (TDC) for 2012 was \$6,658,195, a decrease of 28.9% over last year. The chart below shows the components of pay awarded compared with the prior year. For more details about the structure of Mr. Festa's compensation, see "Summary Compensation Table."

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Compensation Element	2012 (\$)	2011 (\$)	Percentage Increase (Decrease) in Compensation Element (%)
Base Salary	975,000	968,500	0.7
Annual Cash Incentive	848,250	1,350,000	(37.2)
Long-term Cash Incentive	1,499,985	2,156,005	(30.4)
Fair Market Value of Option Grant	2,381,400	4,087,685	(41.7)
Increase in Pension Value	798,000	646,000	23.5
Other Compensation	155,560	157,805	(1.4)
Total	6,658,195	9,365,995	(28.9)

## Overview

The Board of Directors has designated six of our officers (including the five executive officers named in the Summary Compensation Table) as executive officers. The executive officers include our Chief Executive Officer (CEO), Chief Operating Officer (COO), Chief Financial Officer (CFO) and vice presidents in charge of principal functions or who have policy-making authority. The Board of Directors has delegated authority for approving and administering the compensation plans for executive officers and other members of senior management to the Compensation Committee. The Board has appointed all of the independent members of the Board to serve as members of the Compensation Committee.

A complete description of the responsibilities of the Compensation Committee, referred to as the committee in this Compensation Discussion and Analysis, is set forth in our Compensation Committee Charter, which is available on the Internet at [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/). The committee and the Board review the charter annually and revise it as necessary.

The committee is responsible for reviewing and approving the compensation of all executive officers, including:

- base salary;
- annual incentive compensation;
- long-term incentive compensation;
- employment agreements;
- severance arrangements;
- change-in-control agreements; and
- any special or supplemental benefits not generally available to salaried employees.

The committee also reviews and approves all corporate goals and objectives used in determining the incentive compensation of each executive officer.

The committee receives advice and legal and administrative assistance from our human resources department, legal services group and the Board's outside counsel in meeting its responsibilities. The committee also has authority to retain other outside advisors. During 2012, the committee retained the services of Towers Watson, a human resources consulting firm, after reviewing its independence from management, and we expect the committee to continue working with Towers Watson during 2013. Specific services provided by Towers Watson to the committee during 2012 included:

- participation in selected committee meetings;
- preparation of market compensation data for executives and outside directors; and
- input on current market trends and practices.

The committee expects Towers Watson and our executive officers, including our CEO, our General Counsel and our Chief Human Resources Officer, and their respective subordinates, to meet, exchange information and otherwise cooperate in the performance of their respective duties outside committee meetings.



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## Compensation Elements

The following table outlines the major elements of compensation in 2012 for the executive officers named in the Summary Compensation Table:

Compensation Element	Definition	Rationale
Base Salary	Fixed cash compensation paid twice monthly	Payment for completion of day-to-day responsibilities
Annual Incentive Compensation Plan	Variable cash compensation earned by annual personal performance and achievement of pre-established annual corporate financial performance goals	Builds accountability for achieving annual financial results and personal performance goals
Long-Term Incentive Compensation Plan (Cash-Based)*	Variable cash compensation that is earned by achievement of pre-established three-year corporate financial performance goals	Builds accountability for achieving sustained financial results Encourages retention
Long-Term Incentive Compensation Plan (Equity-Based)	Equity compensation with staggered vesting that increases in value with increases in share price	Aligns long-term interests of executive officers and shareholders Encourages retention
U. S. Defined Contribution Retirement Plans	Savings and Investment Plan (401(k))—Standard tax-qualified defined contribution retirement benefit subject to limitations on compensation and benefits under the Internal Revenue Code	Provides U.S. employees with opportunity to save for retirement on tax-advantaged basis with matched contributions from Grace
	Savings and Investment Plan Replacement Payment Plan (nonqualified)	Highly-paid U.S. employees made eligible for the same level of Grace match as all other participants in the Savings and Investment Plan notwithstanding Internal Revenue Code limitations
U. S. Defined Benefit Retirement Plans	Pension Plan—Standard tax-qualified pension plan subject to limitations on compensation and benefits under the Internal Revenue Code	Provides U.S. employees with retirement income
	Supplemental Executive Retirement Plan(nonqualified)	Highly-paid U.S. employees made eligible for the same benefit formula as all other participants in the Pension Plan notwithstanding Internal Revenue Code limitations

\* Eliminated in 2011, final payments in March 2013.

## Executive Compensation Philosophy and Objectives

The key objective of the Grace executive compensation program is to help achieve the business objectives of the Board of Directors by enabling us to compete effectively with other firms in attracting, motivating and retaining executives. The committee intends the incentive compensation portion of the program to align closely the financial interests of our executives with those of our shareholders and other stakeholders (including creditors and others with an interest in the Chapter 11 proceedings as required by the Bankruptcy Code). Because senior executives have a substantial ability to influence business success, the committee believes that the portion of compensation that is at-risk based on corporate performance should increase as the level of responsibility of the executive increases. The committee also expects the executive compensation program to be consistent with a culture of ethical conduct,

personal integrity and compliance with our policies and applicable law. We require executives to set an example for our employees and our other business associates in emphasizing the Grace Core Values in their daily business conduct. The Grace Core Values consist of a commitment to teamwork, performance, integrity, speed and innovation, which, with our overall commitment to safety, are the foundation of our corporate culture.

Our executive compensation program is designed to reward executives for the achievement of corporate, operating segment and functional goals and objectives, taking into account both individual performance and contributions to our overall success. The individual performance evaluation is based on the committee's assessment of an executive officer's leadership, technical skill, management and operational performance, and potential to contribute to our future success. In making this assessment, the committee relies upon its intimate familiarity with each executive officer and his or her performance that has resulted from each executive officer's attendance and regular presentations at board meetings. In addition, since the number of executive officers is small, the committee is able to spend considerable time with each of them outside committee meetings. In evaluating executive officers other than the CEO, the committee receives substantial input from the CEO. The CEO proposes compensation levels for the other executive officers and, although not a member of the committee, attends committee meetings and participates in committee deliberations regarding compensation levels for the other executive officers. The CEO is excused from deliberations regarding his own compensation and from the "executive

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session" portion of each meeting when the committee meets alone or alone with its outside advisors. The CEO is also excused when the committee meets separately with internal advisors from our human resources group. Periodically the committee consults with Towers Watson for an assessment of the competitiveness of our executive officer compensation relative to certain benchmark companies in the chemicals, materials and specialty chemicals industry that the committee deems our peer group for compensation purposes, and relative to certain broad industry data. The committee selected the benchmark companies as our compensation peer group based upon their size and global scope, the quality of their executive talent, the likelihood that we compete with them for executive talent and the availability of public information regarding their compensation practices. The committee periodically reviews the composition of our compensation peer group to ensure that it remains relevant. For 2012 compensation, the peer group consisted of:

Albemarle Corporation	Olin Corp.
Cabot Corp.	OM Group Inc.
Celanese Corporation	PolyOne Corporation
Cytec Industries Inc.	Rockwood Holdings, Inc.
Eastman Chemical Co.	RPM International Inc.
Ecolab Inc.*	A. Schulman, Inc.
Ferro Corp.	Sigma-Aldrich Corporation
FMC Corp.	Solutia Inc.*
Georgia Gulf Corp.	The Valspar Corporation
International Flavors & Fragrances Inc.	TPC Group Inc.*
Nalco Holding Co.*	Westlake Chemical Corp.

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\*Nalco Holding Co., Solutia Inc. and TPC Group Inc. were removed from the Peer Group during 2012 because they are no longer stand-alone companies and Ecolab Inc. was removed during 2012 because of a large acquisition. The broad industry data that the committee generally reviews is included in studies produced by Towers Watson, Mercer and AonHewitt (all of whom are also nationally recognized compensation and benefits consulting firms) for any given compensation year. The committee used the chemicals and non-durable goods sections of these surveys. These data are used as a secondary reference for executive officer compensation, largely as a check on the peer group compensation levels, as well as to determine if there are any identifiable non-industry trends in compensation. Once the committee has completed an evaluation of an executive officer's overall performance, the committee reviews the executive officer's existing compensation. This information, presented in the form of a "tally sheet," reflects all compensation payable or potentially payable to the executive officer under our compensation plans. For each executive officer, the committee compares the tally sheet to the peer group information provided by Towers Watson and the broad industry data to provide context to its compensation decisions. The committee then makes the compensation determination based on its individual evaluation of each executive officer. In setting an executive officer's compensation level the committee does not target a specific percentile at which pay levels should be set, as the members believe the market for executive talent includes a wide range of practices. Instead, the committee reviews the distribution of peer group pay practices and broad industry data and determines the appropriate positioning of each executive officer's pay based on factors including, but not limited to, the roles and responsibilities of the executive officer, the executive officer's performance, experience, the depth of the market data available and internal equity with other Grace salaried employees. In the case of incentive compensation, if performance objectives are exceeded, the committee believes that incentive compensation should be at or above targeted levels and when performance objectives are not achieved, incentive compensation should be below targeted levels. Although these factors apply to Mr. Festa, his compensation is also subject to the terms of his employment agreement. Grace executives are generally eligible for annual compensation reviews. As a result of the Chapter 11 filing, we have not held an annual meeting of shareholders and, accordingly, have not obtained a say-on-pay advisory vote of the shareholders under Section 14A of the Securities Exchange Act of 1934, as amended. At such time as we hold say-on-pay advisory votes, we expect the committee will consider the results of such votes in making future compensation decisions for the named executive officers.





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## Chief Executive Officer

The committee's process for determining the compensation of the CEO is similar to the process it applies to other executive officers. The committee reviews and approves corporate goals and objectives used in determining the compensation of the CEO. The committee evaluates the CEO's performance in light of those goals and objectives and has sole authority to determine the CEO's compensation based on this evaluation subject to the terms of his employment agreement. The terms of the CEO's employment agreement are discussed below in this Compensation Discussion and Analysis and under the Summary Compensation Table and Potential Payments Upon Termination or Change-In-Control Table. The CEO plays no part in the committee's deliberations or approval of his compensation. The committee believes the CEO's compensation should be higher than the compensation of other executive officers because the CEO is uniquely positioned to influence all aspects of our operations and performance and the resulting return to our shareholders. In addition, the committee believes there exists a robust competition for effective CEO talent among companies of our size and, in this environment, a competitive compensation package is essential for retention. The committee's view is consistent with the practices of the compensation peer group companies and the broad industry data that it has reviewed.

## Compensation Elements

## Base Salary

In 2012, the committee did not implement a general salary increase for executive officers named in the Summary Compensation Table, referred to herein as named executive officers.

Named Executive Officer	Base Annual Salary	Base Annual Salary	Percentage Increase
	Rate as of 12/31/2012 (\$)	Rate as of 12/31/2011 (\$)	in Base Annual Salary Rate (%)
A. E. Festa	975,000	975,000	—
H. La Force III	430,000	430,000	—
G. E. Poling	550,000	550,000	—
D. A. Bonham	410,000	410,000	—
M. A. Shelnitz	375,000	375,000	—

## Annual Incentive Compensation

The Annual Incentive Compensation Plan, or AICP, is a cash-based pay-for-performance incentive plan. Its purpose is to motivate and reward upper- and middle-level employees, including executive officers, for their contributions to our performance. The amount of an individual incentive award payment under the AICP is based upon:

- the individual's AICP target amount;
- the funding of the AICP incentive pool based on our performance; and
- the individual's personal performance.

The Board of Directors established our 2012 AICP targets on February 23, 2012, after considering its objectives for the company and the general economic environment in which we expected to be operating during the year. As in 2011, the Board of Directors focused on the objective of growing earnings commensurate with the business opportunities we have and the investments we have made. In 2012, the Board of Directors also focused on improving our working capital performance.

The committee established objective annual incentive targets based on the performance targets in our 2012 operating plans. The committee evaluated the difficulty of achieving the performance targets in light of uncertainties in the general economy and the chemicals industry and ongoing weakness in our construction products business, and concluded that achievement of such targets would constitute good to outstanding Grace financial performance. While emphasizing both earnings and working capital performance in setting our annual incentive compensation plan goals, the committee gave substantially more weight to earnings performance than working

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capital performance in order to maintain some level of consistency with prior years and because the committee believes that for 2012, earnings performance is a more important indicator of Grace's business performance. For earnings, the committee continued with the Adjusted EBIT metric (as such term is described in this Report in Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations) in the Financial Supplement) used in 2010 and 2011.

For working capital, the committee established a new metric, "Working Capital Days." This metric measures the change in the average Working Capital Days for the three months ending December 31, 2012, from the average Working Capital Days for the prior year quarter. For purposes of this calculation, Working Capital Days for the relevant period is the sum of the average number of days that accounts receivable from sales are outstanding before they are collected (DSO) and the average number of days that inventory is held before it is sold (DOH) less the average number of days that accounts payable are outstanding before they are paid (ADP) during the relevant period. Generally, the lower the number of Working Capital Days, the more efficient the business is in operating its plants, generating cash and freeing up capital for other corporate purposes.

These metrics ensure the continuing alignment of the economic interests of our executives with our annual operating plans and the interests of our shareholders and other stakeholders.

The AICP targets for our named executive officers are as follows:

Named Executive Officer	AICP Target as Percent of Base Salary Paid During 2012	AICP Target as Percent of Base Salary Paid During 2011	
A. E. Festa	100	% 100	%
H. La Force III	80	% 80	%
G. E. Poling	90	% 80	%*
D. A. Bonham	80	% 80	%
M. A. Shelnitz	70	% 70	%

\* In connection with his promotion to President and Chief Operating Officer, Mr. Poling's AICP Target was increased to 90% of base salary effective November 1, 2011.

Actual awards for executive officers may range from \$0 to an amount equal to 200% of the target amount, based on the factors described above.

The target AICP incentive pool is the sum of the target awards of all participants in the AICP. For 2012, 75% of the available AICP incentive pool was established based on our performance in respect of Adjusted EBIT and 25% on performance in respect of Working Capital Days, which aligns the funded amount of our AICP incentive pool with our actual performance. We refer to the related targets as the Adjusted EBIT Target and the Working Capital Days Target, respectively.

## 2012 AICP Performance Targets

Adjusted EBIT (75% of Available Incentive Pool) (in \$ millions)	Working Capital Days (25% of Available Incentive Pool) (in days)	Portion of Incentive Pool funded in respect of Target
Less than 420.5	Less than 64.2	—%
420.5	64.2	25%
525.6	53.5	100%
709.6 or Greater	34.8	200%

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## 2012 Actual AICP Performance

2012 Actual Adjusted EBIT (75% of Available Incentive Pool) (in millions)	\$517.4
Working Capital Days (25% of Available Incentive Pool) (in days)	58.6

In setting the actual amount of the AICP incentive pool, the committee has discretion to adjust the performance objectives, adjust the calculation of each performance measure or adjust the size of the AICP incentive pool irrespective of the achievement of performance objectives. The committee believes that AICP participants generally should not benefit from or be penalized by items not considered when the performance targets are set that result in large unexpected variances from annual operating plan assumptions. For 2012, the committee made no changes in the calculation of Adjusted EBIT or Working Capital Days for use in the AICP calculation.

The actual amount of the 2012 AICP incentive pool established in respect of the Adjusted EBIT Target (75% of the available incentive pool) and Working Capital Days Target (25% of the available incentive pool) was determined by applying linear interpolation between the related target amounts specified above in the 2012 AICP Performance Targets table. The total AICP incentive pool established is the sum of these two amounts. As shown in the table below, the calculated funding amount for 2012 was 87% of the aggregate target amounts of the participants.

## 2012 AICP Funding

2012 Adjusted EBIT (in millions)	\$517.4	
Interpolated Portion of 75% of AICP Incentive Pool funded in respect of Adjusted EBIT Target	94	%
2012 Working Capital Days	58.6	
Interpolated Portion of 25% of AICP Incentive Pool funded in respect of Working Capital Days Target	64	%
Total Portion of Target AICP Incentive Pool funded	87	%

Actual 2012 AICP payments to the named executive officers are as set forth below:

Name	AICP Payment at 87% of Target	Actual AICP Payment
A. E. Festa	\$848,250	\$848,250
H. La Force III	299,280	299,280
G. E. Poling	430,650	430,650
D. A. Bonham	285,360	285,360
M. A. Shelnitz	228,375	228,375

## Long-Term Incentive Compensation (Stock Options)

Our Long-Term Incentive Plans, or LTIPs, are designed to motivate and reward our key employees, including our named executive officers, for their contributions to our performance over a multi-year period and align their financial interests with those of our shareholders and other stakeholders by making a significant portion of their total compensation variable and dependent upon our sustained financial performance.

For 2012, the committee determined that stock options were the most appropriate vehicle to achieve these objectives. Stock options and other equity awards provide direct alignment between the interests of our executives and shareholders. In addition, the value of equity is 100% variable and dependent on creating sustained shareholder value. Finally, equity awards are simple to understand by recipients and do not require establishing long-term performance goals, which is very difficult in light of continued economic uncertainty in our markets. Target award values were determined by the CEO for each option recipient with the exception of the CEO, for whom the committee developed a desired award value. These target award values were determined by reviewing current market compensation data (as discussed earlier in this report), historical long-term incentive target values, the total number of available options to be granted and internal pay equity considerations. Aggregate stock option awards under the 2012 LTIP were approved by the Bankruptcy Court.

In determining the value of stock option awards, the committee used an analysis of stock option value based on an adjusted Black-Scholes option pricing model and reviewed this analysis with their independent consultant,



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Towers Watson. The committee approved the stock option grants included in the 2012 LTIP on June 28, 2012, after approval of the 2012 LTIP by the Bankruptcy Court on June 18, 2012. The exercise price of the options was \$48.45, which was the average of the high and low trading prices of Grace common stock on the New York Stock Exchange on June 28, 2012. The term of the options is five years and they vest over three years in equal annual installments commencing the year after the date of grant.

**Pension Plan/Supplemental Executive Retirement Plan**

As described below under "Pension Benefits," payments under our tax-qualified pension plan are calculated using annual compensation, including base salary and AICP awards, and years of credited Grace service. For 2012, federal income tax law limits to \$250,000 the annual compensation on which benefits under the tax-qualified pension plan may be based. As a result, the committee has implemented a Supplemental Executive Retirement Plan, generally referred to as a SERP, that currently applies to approximately 80 upper level employees, including the executive officers, whose annual compensation exceeds that amount. Under this plan, each such employee will receive the full pension to which that employee would be entitled in the absence of the limitations described above and other limitations imposed under federal income tax law. The SERP is unfunded and is not qualified for tax purposes.

**Savings and Investment Plan/Replacement Payment Plan**

We generally offer a tax-qualified 401(k)-type Savings and Investment Plan, or S&I Plan, to employees under which they may save a portion of their annual compensation in investment accounts on a pre- or post-tax basis. We currently match 100% of employee savings under the S&I Plan up to 6% of the employee's base salary and annual incentive compensation. The committee believes that a 401(k)-type plan with a substantial company match that increases (in dollar amount, not percentage of compensation) with the level of participation in the plan and increases in the employee's annual compensation is an effective recruiting and retention tool for our employees, including our executive officers. For 2012, federal income tax law limits the total contributions, which include an employee's contribution plus the employer's matching contributions, that can be made to an employee's 401(k) plan account to \$50,000 and qualifying annual compensation for 401(k) plan purposes to \$250,000. As a result, the committee has implemented an S&I Plan Replacement Payment Plan that currently applies to approximately 65 of our employees, including our executive officers, whose annual compensation exceeds that amount. Under this plan, each such employee will receive the full matching payments to which that employee would be entitled in the absence of the limitations described above and other limitations imposed under federal income tax law.

**Executive Personal Benefits**

The committee believes that executives generally should not be treated differently than the general employee population when it comes to personal benefits and therefore, the committee has limited executive personal benefits. Executive officers are eligible to participate in the executive physical examination program that offers executives an annual comprehensive physical examination within a compressed time period. Mr. Festa has access to corporate aircraft for reasonable personal travel, though he is responsible for paying income taxes on the value of such travel as determined by the Internal Revenue Service.

**Change-In-Control Severance Agreements**

As described below under "Termination and Change-in-Control Arrangements—Change-In-Control Severance Agreements," we have entered into change-in-control severance agreements with each of the named executive officers. The provisions in these agreements are based on competitive practice and are designed to ensure that the executive officers' interests remain aligned with the interests of our shareholders if a potential change in control occurs. Payments under these agreements are triggered by the involuntary termination of the executive officer's employment without cause (including constructive termination caused by a material reduction in his or her authority or responsibility or by certain other circumstances) following a "change in control." A change in control situation often undermines an executive officer's job security, and it is to our benefit and our shareholders' benefit to encourage our executive officers to seek out beneficial transactions and to remain employed through the closing of any transaction, even though their future employment at Grace may be uncertain. The change-in-control severance agreements are designed to reinforce and encourage the continued attention and dedication of the executive officers to their assigned duties without distraction in the face of potentially adverse circumstances arising from the possibility of a change in control of Grace. Certain terms of these agreements are described below under the Potential Payments

Upon Termination or Change-In-Control Table.

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### Severance Arrangements

As described below under "Termination and Change-in-Control Arrangements—Other Executive Officer Severance Arrangements," we have entered into severance agreements with each of the named executive officers, other than Mr. Festa, whose severance arrangements are included in his employment agreement, and Mr. Bonham, whose severance arrangements were established by committee approval. Payments under these arrangements are triggered by involuntary termination of employment under most circumstances. Our severance arrangements are designed to encourage and reinforce the continued attention and dedication of our executive officers to their assigned duties without undue concern regarding their job security. Certain terms of these agreements are described below under the Potential Payments Upon Termination or Change-In-Control Table.

### Executive Salary Protection Plan

As described below under "Termination and Change-in-Control Arrangements—Executive Salary Protection Plan," our Executive Salary Protection Plan provides payments to our named executive officers, or their respective beneficiaries, in the event of their disability or death prior to age 70 while employed by Grace. The plan is designed to encourage the continued attention and dedication of our executive officers to their assigned duties without undue concern regarding their ability to earn a living and support their families in the event of death or disability. Certain terms of this plan are described below under the Potential Payments Upon Termination or Change-In-Control Table.

### Employment Agreements

We have entered into an employment agreement with Mr. Festa pursuant to which he serves as our CEO. Certain terms of this employment agreement are described below under the Summary Compensation Table and Potential Payments Upon Termination or Change-In-Control Table. This agreement was approved by the Bankruptcy Court and was designed to encourage Mr. Festa to continue as our CEO, remain with Grace and work diligently in pursuit of corporate objectives. Mr. Festa's employment agreement includes a minimum salary and AICP target that were negotiated with Mr. Festa and are based on his business experience, his past performance as our CEO and a competitive analysis of the base salary and annual bonus paid to CEOs at the compensation peer group companies. The agreement also provides for severance payments that are designed to encourage and reinforce Mr. Festa's continued attention and dedication to his assigned duties without undue concern regarding his job security.

We have also entered into an employment agreement with Mr. La Force pursuant to which he serves as our CFO. Certain terms of this employment agreement are described below under the Summary Compensation Table and Potential Payments Upon Termination or Change-In-Control Table. This agreement provides for salary and AICP and LTIP targets and includes provisions regarding severance payments. This agreement was negotiated on an arms-length basis prior to the time Mr. La Force joined Grace. The payments required by this agreement were designed to encourage Mr. La Force to join and remain with Grace in lieu of other employment opportunities available to him.

### Deductibility of Executive Compensation

Under the Omnibus Budget Reconciliation Act of 1993, provisions were added to the Internal Revenue Code of 1986, as amended, under Section 162(m) that limit the tax deduction for compensation expense in excess of \$1 million paid to certain executive officers unless such compensation is "performance-based" and satisfies certain other conditions. The committee believes that compensation payable to executive officers should generally meet the conditions required for full deductibility under Section 162(m). Tax deductibility is one criterion the committee considers when establishing compensation plans. The AICP and LTIPs are structured with the intention that the compensation payable thereunder will generally qualify as deductible "performance-based" compensation. While the committee believes that it is important to preserve the ability to structure compensation plans to meet a variety of corporate objectives even if the compensation is not deductible, due to the committee's focus on performance-based compensation plans, the committee expects that, despite its power to exercise positive discretion in establishing payments under the AICP, the vast majority of compensation paid to the named executive officers will be tax deductible.

### Compensation Committee Report

We, the undersigned members of the Compensation Committee of the Board of Directors of Grace, have reviewed Grace's Compensation Discussion and Analysis for 2012 and have discussed it with Grace management. Based on our review and this discussion, we recommend to the Board that the Compensation Discussion and Analysis be included in Grace's Annual Report on Form 10-K.





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COMPENSATION COMMITTEE

John F. Akers, Chair  
H. Furlong Baldwin  
Ronald C. Cambre  
Marye Anne Fox  
Janice K. Henry  
Jeffry N. Quinn  
Christopher J. Steffen  
Mark E. Tomkins

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## Summary Compensation Table

The following table sets forth the compensation we paid for the periods indicated to our Chief Executive Officer, our Chief Financial Officer and each of our other three most highly compensated executive officers who were executive officers as of December 31, 2012, determined by reference to the total compensation earned by such individuals for 2012 (reduced by the amount set forth in the table below under the caption "Change in Pension Value and Nonqualified Deferred Compensation Earnings").

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards (\$)	Option Awards (a) (\$)	Non-Equity Incentive Plan Compensation (\$)		Change in Pension Value and Nonqualified Deferred Compensation Earnings(c) (\$)	All Other Compensation (\$)	Total (\$)
						AICP(b)	LTIP(b)			
A. E. Festa Chairman & Chief Executive Officer	2012	975,000	-	-	2,381,400	848,250	1,499,985	798,000	155,560	6,658,195
	2011	968,500	-	-	4,087,685	1,350,000	2,156,005	646,000	157,805	9,365,995
	2010	936,000	-	-	2,660,000	1,110,000	344,110	439,000	158,112	5,647,222
H. La Force III Senior Vice President & Chief Financial Officer	2012	430,000	-	-	587,990	299,280	309,997	170,000	53,275	1,850,542
	2011	430,000	-	-	773,333	435,000	352,001	119,000	50,700	2,160,034
	2010	415,000	-	-	549,733	400,000	75,002	82,000	54,300	1,576,035
G. E. Poling President & Chief Operating Officer	2012	550,000	-	-	1,190,700	430,650	382,496	1,222,000	70,375	3,846,221
	2011	466,667	-	-	1,073,933	600,000	482,502	1,017,000	61,900	3,702,002
	2010	442,500	-	-	678,305	550,000	100,502	733,000	63,450	2,567,757
D. A. Bonham Vice President & President Grace Construction Products	2012	410,000	-	-	477,740	285,360	324,997	247,000	47,731	1,792,828
	2011	410,000	-	-	773,333	375,000	384,001	205,000	58,427	2,205,761
	2010	402,500	-	-	576,333	300,000	78,002	129,000	53,550	1,539,385
M. A. Shelnitz Vice President, Secretary & General Counsel	2012	375,000	-	-	396,900	228,375	239,998	571,000	41,875	1,853,148
	2011	375,000	-	-	541,333	300,000	280,001	522,000	39,000	2,057,334
	2010	363,750	-	-	425,600	260,000	53,251	369,000	42,825	1,514,426

Amount represents the aggregate grant date fair value of options computed in accordance with ASC 718, "Compensation—Stock Compensation". The assumptions used to calculate the compensation expense reported for (a) 2012 are described in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 17 (Stock Incentive Plans) to the Consolidated Financial Statements and are incorporated herein by reference.

(b)

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The 2012 amount consists of payments that we expect to make in March 2013 pursuant to the 2012 Annual Incentive Compensation Plan or AICP and 2010-2012 Long-Term Incentive Plan or LTIP, respectively.

The 2012 amount consists of the aggregate change in the actuarial present value of the individual's accumulated benefit under the Grace Pension Plan and Grace Supplemental Executive Retirement Plan (SERP) from December 31, 2011, to December 31, 2012, assuming a 3.75% discount rate and retirement at age 62 with benefits (c) payable on a straight life annuity basis and other assumptions used for financial reporting purposes under generally accepted accounting principles as described in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 10 (Pension Plans and Other Postretirement Benefits Plans) to the Consolidated Financial Statements as follows:

Name	Change in Pension Plan Value (\$)	Change In SERP Value (\$)	Total Change in Pension Value (\$)
A. E. Festa	83,000	715,000	798,000
H. La Force III	49,000	121,000	170,000
G. E. Poling	240,000	982,000	1,222,000
D. A. Bonham	70,000	177,000	247,000
M. A. Shelnitz	208,000	363,000	571,000

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(d) The 2012 amount consists of the following:

Name	Personal Benefits* (\$)	S&I Plan Matching Payments (\$)	S&I Plan Replacement Payments (\$)	Liability Insurance (\$)	Total (\$)
A. E. Festa	14,685	** 15,000	124,500	1,375	155,560
H. La Force III	n/a	15,000	36,900	1,375	53,275
G. E. Poling	n/a	15,000	54,000	1,375	70,375
D. A. Bonham	n/a	15,000	32,100	631	47,731
M. A. Shelnitz	n/a	15,000	25,500	1,375	41,875

\* Consists of our aggregate incremental cost of providing personal benefits if the aggregate amount of personal benefits provided to the individual equaled or exceeded \$10,000.

\*\* Consists of personal use of Grace-provided aircraft (\$12,920) and participation in the executive physical examination program (\$1,765).

#### CEO Employment Agreement

Grace and Mr. Festa entered into an employment agreement, effective as of June 1, 2009, pursuant to which Mr. Festa serves as Chairman and Chief Executive Officer of Grace. Mr. Festa is entitled to an initial base annual salary of \$936,000. His targeted award under the Annual Incentive Compensation Plan is 100% of his base salary earned during the applicable year (or greater, as determined by the Board). Under the agreement, Mr. Festa continues to participate in the Grace LTIPs. His 2012 award is described below under "Grants of Plan-Based Awards in 2012." Grace is obligated to indemnify Mr. Festa for all liabilities that he may incur as a result of his performance of his duties as a director, officer or employee of Grace. The agreement also provides for certain payments in the event that Mr. Festa's employment is involuntarily terminated. These severance payments are discussed below under "Potential Payments Upon Termination or Change-In-Control." The description of Mr. Festa's employment agreement in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the agreement, which has been filed with the SEC.

#### CFO Employment Agreement

Grace has entered into an employment agreement with Mr. La Force. Under this agreement, Mr. La Force is entitled to an initial base salary of \$410,000 and to participate in the Annual Incentive Compensation Plan at an initial target award of 75% of base salary. The agreement also provides for certain payments in the event that Mr. La Force's employment is involuntarily terminated. These severance payments are discussed below under "Potential Payments Upon Termination or Change-In-Control." The description of Mr. La Force's employment agreement in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the agreement, which has been filed with the SEC.

#### Grants of Plan-Based Awards in 2012

The following table provides information regarding grants under our Annual Incentive Compensation Plan, or AICP, and Long Term Incentive Plan, or LTIP, to the executive officers named in the Summary Compensation Table during 2012.

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Name	Plan	Option Grant Date	Estimated Possible Payouts Under Non-Equity Incentive Plan Awards(a)			All Other Option Awards: Number of Securities Underlying Options (#)(c)	Exercise or Base Price of Option Awards (\$/Sh)(d)	Closing Price on Grant Date (\$/Sh)	Grant Date Fair Value of Option Awards (\$)(e)
			Threshold (\$)(b)	Target (\$)(b)	Maximum (\$)(b)				
A. E. Festa	2012 AICP	n/a	243,750	975,000	1,950,000	n/a	n/a	n/a	n/a
	2012 LTIP (Option)	6/28/2012	n/a	n/a	n/a	162,000	48.450	48.550	2,381,400
H. La Force III	2012 AICP	n/a	86,000	344,000	688,000	n/a	n/a	n/a	n/a
	2012 LTIP (Option)	6/28/2012	n/a	n/a	n/a	40,000	48.450	48.550	587,990
G. E. Poling	2012 AICP	n/a	123,750	495,000	990,000	n/a	n/a	n/a	n/a
	2012 LTIP (Option)	6/28/2012	n/a	n/a	n/a	81,000	48.450	48.550	1,190,700
D. A. Bonham	2012 AICP	n/a	82,000	328,000	656,000	n/a	n/a	n/a	n/a
	2012 LTIP (Option)	6/28/2012	n/a	n/a	n/a	32,500	48.450	48.550	477,740
M. A. Shelnitz	2012 AICP	n/a	65,625	262,500	525,000	n/a	n/a	n/a	n/a
	2012 LTIP (Option)	6/28/2012	n/a	n/a	n/a	27,000	48.450	48.550	396,900

(a) Actual payments pursuant to the 2012 AICP and final payments pursuant to the 2010-2012 LTIP that we expect to pay in March 2013 have been determined and are reflected in the Summary Compensation Table.

(b) Amounts are based upon base salary actually paid during 2012.

(c) Options are exercisable in one-third increments on June 28, 2013, June 28, 2014, and June 28, 2015.

(d) The exercise price was determined based on the average of the high and low trading prices of Grace common stock on the New York Stock Exchange on the grant date.

(e) The grant date fair value is generally the amount that Grace would expense in its financial statements over the award's service period, but does not include a reduction for forfeitures.

#### 2012 Annual Incentive Compensation Plan (AICP)

The AICP is a cash-based pay-for-performance incentive plan. Awards under the AICP are allocated from the incentive pool, the amount of which is determined by the extent to which business performance objectives are achieved. The committee has discretion to establish or increase the size of the incentive pool even if performance objectives are not achieved. Once the incentive pool is established, an executive officer's award payment is determined based on the individual's target award, performance and other factors determined by the committee. In order to receive an AICP award payment for a specific calendar year, employees generally must be actively employed by Grace through the payout date, which is typically in March of the following year. See "Potential Payments Upon Termination or Change-In-Control—Termination and Change-in-Control Arrangements" for a description of the circumstances under which AICP payments would be made upon termination of an executive's employment with Grace.

#### Long-Term Incentive Plan (LTIP)

Our long-term incentive plans are multi-year, pay-for-performance incentive plans. Awards under our 2010-2012 LTIP consisted of a cash-based award and an award of stock options under our 2000 Stock Incentive Plan. In 2011, in order to better align the interests of our executives with those of our shareholders and to align our LTIP to market practice, we eliminated the cash component of our LTIP. Awards under our 2012 LTIP consist entirely of an award of stock options under our 2011 Stock Incentive Plan. We intend to make final payments under the 2010 Cash LTIP, however, which payments are described below.

Cash-based awards under the 2010-2012 LTIP are payable based on the extent to which we achieve a specified compound annual growth in our Core EBIT over the three-year performance period using results for 2009 (the year prior to the first year of the performance period) as the baseline. Cumulative Core EBIT for the three-year period is used to determine the compound annual growth rate for this calculation. We generally refer to this growth objective as a CAGR.

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## Core EBIT

Our LTIP Adjusted Core EBIT for the 2010-2012 LTIP performance period is calculated as follows:

(In millions)	2009 (Baseline)	2010	2011	2012
Adjusted EBIT*	\$229.0	\$326.4	\$478.6	\$517.4
Adjustments:				
Restructuring expenses and related asset impairments	(33.4 )	(11.2 )	(6.9 )	(6.9 )
Gains (loss) on sales of product lines and gain related to the sale of interest in an unconsolidated affiliate	33.9	—	(0.8 )	(0.4 )
Defined benefit pension expense previously reported as noncore, now reported in Adjusted EBIT	16.7	13.7	8.3	9.2
Non-asbestos provision for environmental remediation previously reported as noncore, now reported in Adjusted EBIT	(0.5 )	1.3	1.5	2.3
Other noncore expense (income)	9.6	1.0	2.8	(3.0)
Core EBIT	\$255.3	\$331.2	\$483.5	\$518.6

\* Calculated as described in this Report in Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations) in the Financial Supplement.

In completing the CAGR calculation, Core EBIT for each year after 2009 (the baseline year) is adjusted to eliminate the effect of changes in pension expense related to core operations and LTIP expense as follows:

## 2010-2012 LTIP Adjusted Core EBIT

2010-2012 LTIP Plan (In millions)	2009 Baseline	2010	2011	2012
Core EBIT	\$255.3	\$331.2	\$483.5	\$518.6
Adjustments:				
Change in Pension Expense related to core operations	—	(5.4 )	(13.7 )	(6.4 )
Long-term Incentive Plan Expense	—	3.1	13.1	6.7
LTIP Core EBIT	\$255.3	\$328.9	\$482.9	\$518.9

The compound annual growth rates in Core EBIT (reflecting the LTIP adjustments reflected in the table above) as of December 31, 2012, for the 2010-2012 LTIP is as follows:

LTIP	CAGR	%
2010-2012 LTIP (full 3-year performance period)	30.29	%

In order to earn the target award, our CAGR must be 6%, to earn the maximum of 200% of the target award, our CAGR must be 25% and no award is earned if our CAGR is 0 or negative as reflected in the following table:

Compound Annual Growth Rate in LTIP Adjusted Core EBIT (CAGR)	Portion of LTIP Target Amount Earned
Target	
25%	200%
15%	147%
10%	121%
6%	100%
3%	50%
—%	—%

The actual funded amount of the LTIP is determined solely by applying linear interpolation using the CAGR for the relevant performance period between the related target amounts specified above.

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Employees who become entitled to cash payments under an LTIP are generally paid in two installments: one in March of the third year of the performance period as partial payment based on our performance during the first two years of the performance period; and the other in March of the year following the performance period (as final payment based on the complete three-year performance period but offset by any prior partial payment). Partial payments to participants are calculated by: (i) multiplying the participant's target award by 66.67% to determine the two-year partial target; (ii) multiplying the two-year partial target by the interpolated amount from the table above based on our CAGR for the two-year partial performance period to determine the portion of the two-year partial target earned; and (iii) multiplying the portion of the two-year partial target earned by 50%. In any case, the partial payment is subject to a cap equal to 50% of the target amount for the first two years.

Based on 2010-2012 operating performance, payments under the 2010 Cash LTIP are calculated based upon 200% of the full three-year target for each participant as follows:

Name	2010 Cash LTIP Target (\$)	Portion of Target Earned Up to 200% of Target (200% of Target) (\$)	2010 Cash LTIP Partial Payment Paid in 2012 (\$)	2010 Cash LTIP Final Payment (\$)
A. E. Festa	900,000	1,800,000	300,015	1,499,985
H. La Force III	186,000	372,000	62,003	309,997
G. E. Poling	229,500	459,000	76,504	382,496
D. A. Bonham	195,000	390,000	65,003	324,997
M. A. Shelnitz	144,000	288,000	48,002	239,998

In order to receive a cash LTIP award payment, employees generally must be actively employed by Grace through the payout date. See "Potential Payments Upon Termination or Change-In-Control—Termination and Change-In-Control Arrangements—Long-Term Incentive Plan (Cash Awards)" for a description of the circumstances under which LTIP payments would be made upon termination of an executive's employment with Grace.

#### Outstanding Equity Awards at Fiscal Year End 2012

The following table provides information regarding outstanding stock options held by the executive officers named in the Summary Compensation Table as of December 31, 2012.



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Name	Option Awards		Option Exercise Price (\$)	Option Expiration Date
	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable		
A. E. Festa	—	162,000	(a) 48.450	6/28/2017
	88,096	176,194	(b) 42.255	5/5/2016
	175,001	87,499	(c) 27.745	5/5/2015
	324,710	—	9.785	5/7/2014
	96,490	—	19.710	9/11/2013
H. La Force III	—	40,000	(a) 48.450	6/28/2017
	16,666	33,334	(b) 42.255	5/5/2016
	36,167	18,083	(c) 27.745	5/5/2015
	50,740	—	9.785	5/7/2014
	45,190	—	19.710	9/11/2013
G. E. Poling	—	81,000	(a) 48.450	6/28/2017
	3,334	6,666	(d) 41.250	11/3/2016
	20,002	39,998	(b) 42.255	5/5/2016
	44,626	22,312	(c) 27.745	5/5/2015
	71,030	—	9.785	5/7/2014
D. A. Bonham	—	32,500	(a) 48.450	6/28/2017
	16,666	33,334	(b) 42.255	5/5/2016
	37,917	18,958	(c) 27.745	5/5/2015
	55,810	—	9.785	5/7/2014
M. A. Shelnitz	—	27,000	(a) 48.450	6/28/2017
	11,666	23,334	(b) 42.255	5/5/2016
	28,001	13,999	(c) 27.745	5/5/2015
	40,590	—	9.785	5/7/2014
	31,710	—	19.710	9/11/2013

(a) Options are exercisable in one-third increments on June 28, 2013, June 28, 2014, and June 28, 2015.

(b) Options are exercisable in one-third increments on May 4, 2012, May 3, 2013, and May 5, 2014.

(c) Options are exercisable in one-third increments on May 5, 2011 and May 7, 2012, and May 6, 2013.

(d) Options are exercisable in one-third increments on November 2, 2012, November 1, 2013, and November 3, 2014.

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## Option Exercises and Stock Vested in 2012

The following table provides information regarding the exercise of options held by the executive officers named in the Summary Compensation Table during 2012.

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting (\$)
A. E. Festa	75,000	3,404,520	—	—
H. La Force III	25,000	1,091,358	—	—
G. E. Poling	106,540	4,053,618	—	—
D. A. Bonham	60,880	2,224,423	—	—
M. A. Shelnitz	31,710	1,299,467	—	—

## Pension Benefits

The following table provides information regarding benefits under our Retirement Plan for Salaried Employees, or Pension Plan, our Supplemental Executive Retirement Plan, or SERP, and any supplemental pension arrangements under employment agreements for the executive officers named in the Summary Compensation Table.

Name	Plan Name	Number of Years Credited Service (years)	Present Value of Accumulated Benefit* (\$)	Payments During Last Fiscal Year (\$)
A. E. Festa	Pension Plan	9.08	303,000	—
	SERP	9.08	2,612,000	—
H. La Force III	Pension Plan	4.75	133,000	—
	SERP	4.75	300,000	—
G. E. Poling	Pension Plan	33.42	1,305,000	—
	SERP	33.42	4,351,000	—
D. A. Bonham	Pension Plan	7.25	235,000	—
	SERP	7.25	542,000	—
M. A. Shelnitz	Pension Plan	29.17	1,025,000	—
	SERP	29.17	1,915,000	—

Amounts comprise the actuarial present value of the executive officer's accumulated benefit under the Pension Plan and SERP as of December 31, 2012, assuming a 3.75% discount rate and retirement at age 62 with benefits payable on a straight life annuity basis and other assumptions used for financial reporting purposes under generally accepted \*accounting principles as described in this Report in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 10 (Pension Plans and Other Postretirement Benefits Plans) to the Consolidated Financial Statements. The Pension Plan and SERP provide for a reduction in pension benefits to employees that elect early retirement ranging from a 17% reduction for retirement at age 55 to no reduction for retirement at age 62.

## Retirement Plan for Salaried Employees

Full-time salaried employees who are 21 or older and who have one or more years of service are eligible to participate in our Retirement Plan for Salaried Employees, or Pension Plan. Under this basic retirement plan, pension benefits are based upon (a) the employee's average annual compensation for the 60 consecutive months in which his or her compensation is highest during the last 180 months of continuous participation, and (b) the number of years of the employee's credited Grace service. At age 62, a participant is entitled to full benefits under the Pension Plan but a participant may elect reduced payments upon early retirement beginning at age 55. For purposes of the Pension Plan, compensation generally includes base salary and AICP awards; however, for 2012, federal income tax law limits to \$250,000 the annual compensation on which benefits under the Pension Plan may be based. The Pension Plan is

further described in Item 8 (Financial Statements and Supplementary Data) in the

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Financial Supplement under Note 10 (Pension Plans and Other Postretirement Benefits Plans) to the Consolidated Financial Statements and in Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations under the caption "Financial Condition, Liquidity, and Capital Resources—Employee Benefit Plans—Defined Benefit Pension Plans") in the Financial Supplement.

**Supplemental Executive Retirement Plan**

We also have an unfunded, nonqualified Supplemental Executive Retirement Plan, or SERP, under which an employee will receive the full pension to which he or she would be entitled in the absence of the limitations described above and other limitations imposed under federal income tax law. In addition, the SERP recognizes deferred base salary, deferred annual incentive compensation awards and, in some cases, periods of employment during which an employee was ineligible to participate in the basic retirement plan. Since 2001, we have not permitted deferrals of base salary or incentive compensation. The SERP is further described in Item 8 (Financial Statements and Supplementary Data) in the Financial Supplement under Note 10 (Pension Plans and Other Postretirement Benefits Plans) to the Consolidated Financial Statements and in Item 7 (Management's Discussion and Analysis of Financial Condition and Results of Operations under the caption "Financial Condition, Liquidity, and Capital Resources—Employee Benefit Plans—Defined Benefit Pension Plans") in the Financial Supplement.

**Non-Qualified Deferred Compensation Plan**

The following table summarizes the compensation deferred by the named executive officer pursuant to the provisions of Grace's incentive compensation plan in 1998, under which certain employees were permitted to voluntarily defer receipt of shares of Grace common stock. Such deferred shares were contributed to a "rabbi trust" held for the benefit of the deferred compensation plan participants. Shares held in the plan are fully vested and may be distributed to the plan beneficiary upon retirement or termination of service with us. Since 1998, executives may no longer defer receipt of shares under the plan, although existing balances remain in place.

**Fiscal Year 2012 Non-Qualified Deferred Compensation**

Name	Executive Contributions in Fiscal Year 2012 (\$)	Registrant Contributions in Fiscal Year 2012 (\$)	Aggregate Earnings in Fiscal Year 2012 (\$)	Aggregate Withdrawals/ Distributions in Fiscal Year 2012 (\$)	Aggregate Balance at Fiscal Year 2012 End (\$)
M. A. Shelnitz	—	—	200,759	(a) —	633,364 (b)

(a) Amount represents the increase in value of 9,420.8496 shares of Grace common stock held in the plan based on the closing prices of Grace common stock on December 31, 2011, of \$45.92 and December 31, 2012, of \$67.23.

(b) Amounts reflected are not included in the "Summary Compensation Table" because the earnings are not "above market."

(b) Amount represents the value of 9,420.8496 shares of Grace common stock held in the plan based on the closing price of Grace common stock on December 31, 2012, of \$67.23.

**Potential Payments Upon Termination or Change-In-Control**

The following table sets forth potential payments to executive officers named in the Summary Compensation Table in the event of the listed events calculated under the assumption that employment terminated on the last business day of 2012. The following table does not include payments pursuant to contracts, agreements, plans and arrangements that do not discriminate in scope, terms or operation, in favor of executive officers and that are available generally to all salaried employees. The value of payments to be made following termination of employment pursuant to the Grace Retirement Plan and the Grace SERP are described above under the caption "Pension Benefits." The value of payments to be made following termination of employment pursuant to Mr. Shelnitz's deferred shares arrangement are described above under the caption "Non-Qualified Deferred Compensation Plan."

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Name	Involuntary Termination Without Cause (\$)(a)	Change-in-Control (\$)(b)	Involuntary Termination Without Cause Following Change-in-Control (\$)(c)(d)	Death (\$)(c)(e)	Disability (\$)(c)(g)	
A. E. Festa	3,412,500	10,897,703	7,349,985	3,323,235	(f) 2,688,235	(f)
H. La Force III	645,000	2,297,724	2,631,997	739,997	474,831	
G. E. Poling	1,100,000	3,574,302	3,517,496	932,496	492,494	
D. A. Bonham	615,000	2,191,423	2,538,997	734,997	441,164	
M. A. Shelnitz	750,000	1,642,577	2,152,498	614,998	333,748	

Consists: (i) in the case of Mr. Festa, of minimum severance payments pursuant to his employment agreement as described below under "—Termination and Change-in-Control Arrangements—CEO Severance Arrangements;" and (ii) in the case of the other executive officers, minimum severance payments pursuant to severance agreements as (a) described below under "—Termination and Change-in-Control Arrangements—Other Executive Officer Severance Arrangements." Amount excludes cash LTIP payments (in amounts set forth below in footnote (c)) and/or AICP payments that executive officers may receive in the discretion of the Compensation Committee as described below under "—Termination and Change-in-Control Arrangements."

(b) Upon change-in-control, stock options immediately become fully vested and exercisable. Amount shown represents the in-the-money value of unvested stock options as of December 31, 2012.

(c) Includes actual LTIP payment under the 2010 Cash LTIP (as included in the Summary Compensation Table) as follows:

Name	2010-2012 LTIP (Cash) (\$)
A. E. Festa	1,499,985
H. La Force III	309,997
G. E. Poling	382,496
D. A. Bonham	324,997
M. A. Shelnitz	239,998

(d) Includes contractual payments pursuant to each executive's respective Change-in-Control Severance Agreement calculated under the assumption that no excise tax will apply as follows:

Name	Change-in-Control Severance Payments (\$)
A. E. Festa	5,850,000
H. La Force III	2,322,000
G. E. Poling	3,135,000
D. A. Bonham	2,214,000
M. A. Shelnitz	1,912,500

(e) Includes the sum of payments under the Grace Executive Salary Protection Plan (ESPP) during the first year following death. For executive officers other than Mr. Festa, amount excludes AICP payments they may receive under certain circumstances in the discretion of the Compensation Committee as described below under "—Termination and Change-in-Control Arrangements." During subsequent years after death until the specified termination year (reflecting the executive officer's age as of December 31, 2012), the sum of payments each year would be as follows:



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Name	ESPP Payments Each Year Following Year of Death (\$)	Year of Termination of Payments*
A. E. Festa	487,500	2023
H. La Force III	215,000	2023
G. E. Poling	275,000	2021
D. A. Bonham	205,000	2023
M. A. Shelnitz	187,500	2023

\* Payments terminate 10 years following death; provided however, if the executive officer is over age 55 at the time of death, the duration of payments is reduced.

(f) Includes 2012 AICP payment calculated solely on the basis of Grace's 2012 financial performance in the amount of \$848,250 pursuant to Mr. Festa's employment agreement as described below under "—Termination and Change-in-Control Arrangements—CEO Severance Arrangements."

(g) Includes sum of payments under the Grace Executive Salary Protection Plan during the first year following disability, assuming the executive officer remains disabled for at least 12 consecutive months. Amounts reflect the offset of expected payments under Grace's long-term and short-term disability plans that are based, in part, on the duration of the executive officer's employment. For executive officers other than Mr. Festa, amount excludes AICP payments they may receive under certain circumstances in the discretion of the Compensation Committee as described below under "—Termination and Change-in-Control Arrangements—Annual Incentive Compensation Plan." During subsequent years after disability until the specified termination year or earlier death or end of disability, the sum of payments each year would be:

Name*	ESPP Payments Each Year Following Year of Disability (\$)	Year of Termination of Payments
A. E. Festa	225,000	2024
H. La Force III	43,000	2029
M. A. Shelnitz	37,500	2023

Due to the offset of expected payments under Grace's long-term and short-term disability plans, Grace expects that \*the other named executive officers would not receive any additional payments under the ESPP after the first year of disability.

Termination and Change-in-Control Arrangements

Change-in-Control Severance Agreements. We have entered into severance agreements with all of our executive officers, which renew automatically unless the Board elects not to renew them. These agreements generally provide that in the event of the involuntary termination of the individual's employment without cause (including constructive termination caused by a material reduction in his or her authority or responsibility or by certain other circumstances) following a "change in control," he or she will generally receive a severance payment equal to three times the sum of his or her annual base salary plus target annual incentive compensation, subject to reduction, pro rata in the case of an executive officer who is within 36 months of normal retirement age (65) or, under certain circumstances, to minimize the effect of certain excise taxes if applicable. For purposes of the severance agreements, "change in control" means the acquisition of 20% or more of the outstanding Grace common stock (but not if such acquisition is the result of the sale of common stock by Grace that has been approved by the Board), the failure of Board-nominated directors to constitute a majority of any class of the Board of Directors, the occurrence of a transaction in which the Grace shareholders immediately preceding such transaction do not own more than 50% of the combined voting power of the

entity resulting from such transaction, or the liquidation or dissolution of Grace. As a result of Grace's Chapter 11 filing, the following events will not constitute a "change in control": (i) the acquisition of Grace common stock by a trust established for purposes of administering asbestos-related claims pursuant to a plan of reorganization; and (ii) a corporate transaction pursuant to Section 363 of the U.S. Bankruptcy Code or a plan of reorganization. The severance amount would be paid in a single lump-sum after termination. The description of the severance agreements in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the form of such agreement, which has been filed with the SEC.



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**CEO Severance Arrangements.** Under the terms of Mr. Festa's employment agreement, if we terminate Mr. Festa's employment without cause, or he terminates his employment as a result of constructive discharge, he would be entitled to a severance payment equal to two times a dollar amount equal to 175% of his annual base salary at the time of his termination. The severance amount would be paid in installments over a period of 24 months; however, at Mr. Festa's option, as approved by the Compensation Committee, the entire severance amount may be paid in a single lump-sum after termination. The provisions of Mr. Festa's employment agreement pertaining to this severance amount survive the expiration of the agreement on May 31, 2013. Also under the terms of this agreement, Mr. Festa will not be entitled to any unpaid award under the AICP or any LTIP if his employment with Grace terminates prior to the date that the award is paid to active Grace employees, except that Mr. Festa would be entitled to a prorated portion (based, in the case of the AICP, solely on Grace financial results for that calendar year) of such an unpaid award in the event that his employment is terminated by Grace without cause or he terminates his employment as a result of constructive discharge after Grace emerges from Chapter 11, or his employment terminates as a result of his death or disability, in each case, before the applicable payment date. Severance payments under Mr. Festa's employment agreement are contingent upon Mr. Festa's execution of an agreement releasing Grace and certain related parties from liabilities related to Mr. Festa's employment by Grace. The description of Mr. Festa's employment agreement in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the agreement, which has been filed with the SEC.

**Other Executive Officer Severance Arrangements.** We have entered into severance agreements with Messrs. La Force (included in his employment agreement), Poling and Shelnitz. Mr. Bonham's severance arrangements were established by Compensation Committee approval. Under the terms of the severance arrangements applicable to these named executive officers, in the event of the involuntary termination of the executive officer's employment under circumstances that would qualify the executive officer for severance pay under the severance plan that generally covers our salaried employees, the executive officer would be entitled to severance pay equal to two times his annual base salary, in the case of Messrs. Poling and Shelnitz, or one and one-half times his annual base salary, in the case of Messrs. La Force and Bonham. The severance amount would be paid in installments in the form of salary continuation, provided that an executive officer could elect to receive the entire severance amount as a single lump sum after termination in conjunction with the termination of certain employee benefit coverage. Severance payments are contingent upon the named executive officer's execution of an agreement releasing Grace and certain related parties from liabilities related to his or her employment by Grace. Other than with respect to the amount of severance, the severance arrangements for these named executive officers are the same. The description of the severance arrangements in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to Mr. La Force's employment agreement, the form of executive severance agreement and the Grace Severance Pay Plan for Salaried Employees, each of which has been filed with the SEC.

**Executive Salary Protection Plan.** All executive officers participate in the Executive Salary Protection Plan which provides that, in the event of a participant's disability or death prior to age 70, we will continue to pay all or a portion of base salary to the participant or a beneficiary for a period based on the participant's age at the time of disability or death. Payments under the plan may not exceed 100% of base salary for the first year and 60% thereafter in the case of disability (50% in the case of death). Any payment under the plan as a result of disability would be reduced by the amount of disability income received under Grace's long-term and short-term disability plans that are generally applicable to U.S. salaried employees. The payments would be paid in installments in the form of salary continuation. The description of the plan in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the text of the Executive Salary Protection Plan, as amended, which is filed with the SEC.

**Annual Incentive Compensation Plan.** An employee whose employment terminates prior to an AICP payout date will generally not receive an AICP payment. However, in the discretion of the Compensation Committee, an employee whose employment terminates prior to the payout date may receive an AICP award payment if the employee has more than three months' service under the AICP and employment terminates for any of the following reasons: retirement under a Grace retirement plan; death; disability; divestment; or other termination of employment by Grace that is not for cause. If an employee whose employment terminates prior to the end of a year receives an AICP award payment for that year, the amount of the AICP award payment will generally be prorated for the period

of the employee's service during the year and paid at the time the award is paid to active Grace employees. See "—CEO Severance Arrangements" for a description of the circumstances under which AICP payments would be made to Mr. Festa in the event his employment with Grace is terminated. The description of the AICP in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the text of the AICP which is filed with the SEC.

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Long Term Incentive Plan (Cash Awards). An employee whose employment terminates prior to the payout date will forfeit any unpaid LTIP award payment if employment terminates for any of the following reasons:

- voluntary termination without the consent of the Compensation Committee;
- retirement under a Grace retirement plan prior to age 62 without the consent of the Compensation Committee; or
- termination for cause.

An employee whose employment terminates prior to the payout date will receive an LTIP award payment if employment terminates for any of the following reasons:

- retirement under a Grace retirement plan either at or after age 62;
- death or disability; or

involuntary termination after a change in control of Grace ("change in control" means that a person beneficially owns 20% or more of the outstanding Grace common stock (but not if such ownership is the result of the sale of Grace common stock by Grace that has been approved by the Board or pursuant to a plan of reorganization that is confirmed and effective), the failure of Board-nominated directors to constitute a majority of any class of the Board of Directors, the occurrence of a corporate transaction (other than a corporate transaction pursuant to Section 363 of the U.S. Bankruptcy Code or a plan of reorganization that is confirmed and effective) in which the Grace shareholders immediately preceding such transaction do not own more than 50% of the combined voting power of the entity resulting from such transaction, or the liquidation or dissolution of Grace).

In the discretion of the Compensation Committee, an employee whose employment terminates for a reason that is not described above (i.e. involuntary termination not for cause or transfer to the buyer of a Grace business unit) prior to the payout date may receive an LTIP award payment. If an employee whose employment terminates prior to the end of an LTIP performance period receives an LTIP award payment for that performance period, the amount of the LTIP award payment will be prorated for the period of the employee's service during the performance period and paid at the time the award is paid to active Grace employees. See "—CEO Severance Arrangements" above for a description of the circumstances under which LTIP payments would be made to Mr. Festa in the event his employment with Grace is terminated. The description of the LTIPs in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the text of the LTIPs, which are filed with the SEC.

Long Term Incentive Plan (2000 and 2011 Stock Incentive Plan Awards). Any stock option held by an employee whose employment terminates prior to exercise will terminate:

- when employment terminates, if employment terminates voluntarily, without the consent of the Compensation Committee, or for cause;
- three years after employment terminates, if employment terminates due to death or incapacity;
- three years after employment terminates, if employment terminates due to retirement under a Grace retirement plan, provided the employee continues to serve Grace until the first installment of the stock option becomes exercisable; or
- three months (subject to extension by the Compensation Committee for up to three years) after employment terminates, if employment terminates for another reason; provided however, if the holder dies or becomes incapacitated during the three-month period (or such longer period as the Compensation Committee approves) the option shall terminate three years after employment termination.

In the event of a Change in Control, any stock options outstanding under the 2000 and 2011 Stock Incentive Plans, that are not exercisable and vested, shall become fully exercisable and vested to the full extent of the original grant.

For purposes of the 2000 and 2011 Stock Incentive Plans, "change in control" means:

- the acquisition of 20% or more of the outstanding Grace Common Stock (but not if such acquisition is the result of the sale of Grace common stock by Grace that has been approved by the Board);
- the failure of Board-nominated directors to constitute a majority of any class of the Board of Directors;

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the occurrence of a transaction in which the Grace shareholders immediately preceding such transaction do not own more than 50% of the combined voting power of the entity resulting from such transaction; or  
the liquidation or dissolution of Grace.

The description of the 2000 and 2011 Stock Incentive Plans in Item 11 of this Report does not purport to be complete and is qualified in its entirety by reference to the text of the 2000 and 2011 Stock Incentive Plans, which are filed with the SEC.

**Director Compensation for 2012**

Under the compensation program for nonemployee directors in effect during 2012, each nonemployee director received an annual retainer of \$142,750 in cash, 50% of which was paid in January and 50% of which was paid in December. In addition, directors received \$6,000 (plus \$3,000 for the lead independent director and the Audit Committee chair and \$2,000 for other committee chairs) in cash for each meeting date in respect of the Board meeting and all committee meetings held on that date. We reimburse directors for expenses they incur in attending Board and committee meetings and other activities incidental to their service as directors. Our directors, and all Grace employees, are entitled to participate in the Grace Foundation's Matching Grants Program. We also maintain business travel accident insurance coverage for our directors. Mr. Festa's compensation is described above in the Summary Compensation Table and he receives no additional compensation for serving as a member of the Board of Directors. The Compensation Committee has implemented a new director compensation program for 2013 that eliminates meeting fees and is split between cash (44%) and equity (56%) in order to better align director compensation to shareholder returns. Under this program, each nonemployee director will receive: an annual retainer of \$80,000 in cash, 50% of which is paid in January and 50% of which is paid in December; and an annual award of \$100,000 of Grace common stock which is issued in May. Additional annual cash retainers are paid in December as follows: the Lead Independent Director receives \$20,000; the Audit Committee Chair receives \$15,000; and the Chairs of the Compensation and the Nominating and Governance Committees each receive \$10,000. The equity component of this program remains subject to Bankruptcy Court approval. The Compensation Committee has also instituted a stock ownership guideline for directors in the amount of five times the annual director retainer within five years of joining the Board or, in the case of current directors, the adoption of the policy.

The following table sets forth amounts that we paid to our nonemployee directors in connection with their services to Grace during 2012.

Name	Fees Earned or Paid in Cash \$(a)	Stock Awards (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation \$(b)	Total (\$)
J. F. Akers	190,750	—	—	—	—	3,000	(c) 193,750
H. F. Baldwin	178,750	—	—	—	—	—	178,750
R. C. Cambre	178,750	—	—	—	—	—	178,750
M. A. Fox	190,750	—	—	—	—	—	190,750
J. K. Henry (d)	178,750	—	—	—	—	—	178,750
J. J. Murphy (e)	83,375	—	—	—	—	—	83,375
J. N. Quinn (d)	29,792	—	—	—	—	—	29,792
C. J. Steffen	191,750	—	—	—	—	3,000	(c) 194,750
M. E. Tomkins	196,750	—	—	—	—	—	196,750
T. A. Vanderslice (e)	104,375	—	—	—	—	—	104,375

(a) Amount consists of annual retainer in the amount of \$142,750 (prorated for Mr. Quinn in the amount of \$23,792 and reduced by 50% in the case of Messrs. Murphy and Vanderslice in the amount of \$71,375), meeting fees in the

amount of \$36,000 (other than Mr. Murphy who received \$12,000, Mr. Quinn who received \$6,000, and Mr. Vanderslice who received \$18,000) and additional payments to: Mr. Akers for serving as Chair of the Compensation Committee and Dr. Fox for serving as Chair of the Corporate

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Responsibility Committee in the amounts of \$12,000; Mr. Tomkins for serving as Chair of the Audit Committee in the amount of \$18,000; Mr. Vanderslice for serving as Chair of the Nominating and Governance Committee and Lead Independent Director in the amount of \$15,000; and Mr. Steffen for serving as Chair of the Nominating and Governance Committee and Lead Independent Director in the amount of \$13,000.

- (b) Grace paid an aggregate of \$1,909 in premiums for business travel accident insurance coverage for all directors during 2012.
- (c) Consists of charitable contributions paid during 2012 to academic institutions at the request of the director pursuant to the Grace Foundation's Matching Grants Program.
- (d) Ms. Henry and Mr. Quinn were elected to the Board of Directors on January 18, 2012, and November 7, 2012, respectively.
- (e) Messrs. Murphy and Vanderslice resigned from the Board of Directors and all committees effective February 23, 2012, and June 28, 2012, respectively.

Compensation Policies and Practices Relating to Risk Management

We do not believe that risks arising from our compensation policies and practices for our employees are reasonably likely to have a material adverse effect on Grace through excessive risk taking incentives or otherwise. Our compensation program, though tailored to our specific needs, is generally similar to compensation programs used by other companies in our industry. We have many years of experience with the various components of our compensation program, including our incentive plans under which payments may vary based on the performance of the business. We believe these plans, backed by our corporate ethics program and the Grace Core Values, have been successful in aligning the interests of our executives and senior employees with the interests of our stakeholders and in encouraging the responsible pursuit of corporate objectives by our employees.

Compensation Committee Interlocks and Insider Participation

During 2012, the Compensation Committee of the Board was composed of Messrs. Akers (Chair), Baldwin, Cambre, Murphy (until his resignation on February 23, 2012), Vanderslice (until his resignation on June 28, 2012), Tomkins and Steffen and Dr. Fox. Ms. Henry and Mr. Quinn joined the Board and Compensation Committee on January 18, 2012, and November 7, 2012, respectively. None of these persons is a current or former Grace officer or employee, nor did we have any reportable transactions with any of these persons. None of our executive officers serves or in the past has served as a member of the board of directors or compensation committee of any entity that has one or more of its executive officers serving on our Board of Directors or our Compensation Committee.

Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

SECURITY OWNERSHIP

The following table sets forth the amount of Grace common stock beneficially owned, directly or indirectly, as of January 31, 2013 by:

- each person that we know is the beneficial owner of more than 5% of the outstanding shares of Grace common stock;
- each current director;
- each of the executive officers named in the Summary Compensation Table set forth in Item 11 above; and
- all directors and all executive officers as a group.

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Name and Address of Beneficial Owner(1)(2)	Shares of Common Stock Beneficially Owned(3)	Percent(4)	
FMR LLC(5)	6,469,905	8.6	%
Fidelity Management & Research Company Edward C. Johnson 3d 82 Devonshire Street Boston, Massachusetts 02109			
Iridian Asset Management LLC(6)	4,515,563	6.0	%
David L. Cohen			
Harold J. Levy			
276 Post Road West Westport, CT 06880-4704			
J. F. Akers	38,996		
	15,196	(T)	
	54,192	*	
H. F. Baldwin	21,918		
	15,000	(T)	
	36,918	*	
R. C. Cambre	28,494	*	
A. E. Festa	100,000		
	684,297	(O)	
	784,297	1.0	%
M. A. Fox	55,346		
	8,942	(T)	
	64,288	*	
J. K. Henry	-	*	
J. N. Quinn	—		
C. J. Steffen	10,000	*	
M. E. Tomkins	12,000	*	
D. A. Bonham	110,393	(O) *	
H. La Force III	50,000		
	148,763	(O)	
	198,763	*	
G. E. Poling	138,992	(O)	
	18,000	(T)	
	156,992	*	
M. A. Shelnitz	53,500		
	111,967	(O)	
	9,421	(T)	
	174,888	*	
Directors and executive officers as a group (14 persons)	370,254		
	1,227,748	(O)	
	66,559	(T)	
	1,664,561	2.2	%

\* Indicates less than 1%

(O) Shares covered by stock options exercisable on or within 60 days after January 31, 2013.

(T) Shares owned by trusts and other entities as to which the person has the power to direct voting and/or investment.



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- (1) The address of each of our directors and executive officers is c/o Secretary, W. R. Grace & Co., 7500 Grace Drive, Columbia, MD 21044.
- (2) John J. Murphy and Thomas A. Vanderslice resigned from the Board of Directors effective February 23, 2012 and June 28, 2012, respectively.
- (3) Except as otherwise indicated, to our knowledge, each individual, along with his or her spouse, has sole voting and investment power over the shares.
- (4) Based on 75,592,381 shares of Grace common stock outstanding on January 31, 2013.

The ownership information set forth is based in its entirety on material contained in a Schedule 13G/A filed with the SEC jointly by FMR LLC ("FMR"), Fidelity Management & Research Company ("Fidelity") and Edward C. Johnson 3d ("Mr. Johnson") on February 14, 2013. FMR and Mr. Johnson have sole voting power with respect to 299,808 shares and sole dispositive power with respect to all 6,469,905 shares. Mr. Johnson is Chairman of FMR and members of Mr. Johnson's family may be deemed a controlling group with respect to FMR due to their ownership of FMR voting shares and their entry into a voting agreement with respect to such shares. Fidelity is a wholly-owned subsidiary of FMR. Mr. Johnson and FMR, through its control of Fidelity, each has sole dispositive power over 6,151,578 shares owned by various investment companies for which Fidelity serves as investment advisor. Strategic Advisors, Inc. ("SAI") 82 Devonshire Street, Boston MA 02109, is a wholly-owned subsidiary of FMR. Mr. Johnson and FMR, through its control of SAI, each has beneficial ownership of 87,320 shares owned by accounts managed by SAI. Pyramis Global Advisors, LLC ("PGA"), 900 Salem Street, Smithfield, Rhode Island 02917, is a wholly-owned indirect subsidiary of FMR. Mr. Johnson and FMR, through its control of PGA, each has sole dispositive power over 9,360 shares owned by accounts or funds advised by PGATC. Pyramis Global Advisors Trust Company ("PGATC"), 900 Salem Street, Smithfield, Rhode Island 02917, is a wholly-owned indirect subsidiary of FMR. Mr. Johnson and FMR, through its control of PGATC, each has sole dispositive power over 201,087 shares and sole voting power over 191,457 shares owned by institutional accounts managed by PGATC. Mr. Johnson is Chairman of FIL Limited ("FIL"), Pembroke Hall, 42 Crow Lane, Hamilton, Bermuda, and partnerships controlled predominantly by members of Mr. Johnson's family, or trusts for their benefit, own FIL shares representing between 25% and 50% of the total votes which may be cast by all holders of FIL voting stock. FMR and FIL disclaim that they are acting as a "group" for purposes of Section 13(d) under the Securities Exchange Act of 1934. FIL and various foreign-based subsidiaries provide investment advisory and management services to a number of non-U.S. investment companies and certain institutional investors. FIL is the beneficial owner of 20,560 shares.

- The ownership information set forth is based in its entirety on material contained in a Schedule 13G filed with the SEC by Iridian Asset Management LLC ("Iridian"), David L. Cohen and Harold J. Levy on January 31, 2013. Iridian is majority owned by Arovid Associates LLC. Arovid is owned and controlled by the following: 12.5% by Mr. Cohen, 12.5% by Mr. Levy, 37.5% by LLMD LLC and 37.5% by ALHERO LLC. LLMD LLC is owned 1% by Mr. Cohen and 99% by a family trust controlled by Mr. Cohen. ALHERO LLC is owned 1% by Mr. Levy and 99% by a family trust controlled by Mr. Levy. Iridian has shared voting power and shared dispositive power with respect to 4,515,563 shares held in accounts for which it serves as the investment adviser. Messrs. Cohen and Levy may be deemed to possess beneficial ownership of the shares of Common Stock beneficially owned by Iridian by virtue of their indirect controlling ownership of Iridian, and having the power to vote and direct the disposition of shares of Common Stock as joint Chief Investment Officers of Iridian. Messrs. Cohen and Levy disclaim beneficial ownership of such shares.
- (6)

**EQUITY COMPENSATION PLAN INFORMATION**

The following table sets forth information as of December 31, 2012 with respect to our compensation plans under which shares of Grace common stock are authorized for issuance upon the exercise of options, warrants or other rights. The only such compensation plans in effect are stock incentive plans providing for the issuance of stock options and restricted stock.

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Plan Category	Number of securities to be issued upon exercise of outstanding options	Weighted-average exercise price of outstanding options (\$)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities to be issued upon exercise of outstanding options)
Equity compensation plans approved by security holders*	4,024,484	32.3283	—

The 2000 Stock Incentive Plan was approved by stockholders at an annual meeting of Grace stockholders on May 10, 2000. Under the 2000 Plan, there are 2,054,324 shares of Grace common stock to be issued upon the exercise of outstanding options, the weighted-average exercise price of outstanding options is \$20.1380 and no shares of Grace common stock are available for future issuance (excluding shares to be issued upon exercise of outstanding options). The 2011 Stock Incentive Plan was approved on behalf of Grace stockholders by the Official Committee of Equity Security Holders in the Grace Chapter 11 case and by the U.S. Bankruptcy Court for the District of Delaware on April 8, 2011. Under the 2011 Plan, there are 1,970,160 shares of Grace common stock to be issued upon the exercise of outstanding options, the weighted-average exercise price of outstanding options is \$45.0393 and no shares of Grace common stock are available for future issuance (excluding shares to be issued upon exercise of outstanding options).

#### Item 13. CERTAIN RELATIONSHIPS, RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE BOARD INDEPENDENCE

The Board has determined that all directors, other than Mr. Festa (who is also Chief Executive Officer), but including Messrs. Murphy and Vanderslice (who each resigned during 2012) are independent under New York Stock Exchange rules because none of such directors has any direct or indirect material relationship with Grace or our affiliates, other than through his or her service as a director and as an owner of less than 1% of Grace common stock. In addition to the application of the New York Stock Exchange rules, this determination was based on a number of factors, principal among them were the following:

- none of these directors, nor any member of their immediate families is (or at any time during the last three years was) a Grace executive officer or employee and none of these directors is an employee, and no member of their immediate families is an executive officer of any other entity with whom we do any material amount of business;
- none of these directors or any member of their immediate families has, during the last three years, received more than \$50,000 in direct compensation from Grace (other than director and committee fees); and
- none of these directors serve, or within the last three years served, as an executive officer, director, trustee or fiduciary of any charitable organization to which we made any material charitable donation.

Only independent directors serve on our Audit, Nominating and Governance, Compensation and Corporate Responsibility Committees. Mr. Steffen has been appointed Lead Independent Director and, in this capacity, presides at executive sessions of independent directors. Interested parties may communicate with Mr. Steffen by writing him at the following address: Christopher J. Steffen—Lead Independent Director, c/o W. R. Grace & Co., 7500 Grace Drive, Columbia, Maryland 21044.

#### REVIEW, APPROVAL OR RATIFICATION OF TRANSACTIONS WITH RELATED PARTIES

The Board recognizes that transactions involving related persons in which Grace is a participant can present conflicts of interest, or the appearance thereof, so the Board has adopted a written policy as part of the Grace Corporate Governance Guidelines (which are available on our website at [www.grace.com/About/Leadership/Governance/](http://www.grace.com/About/Leadership/Governance/)) with respect to related person transactions. The policy applies to transactions involving related persons that are required to be disclosed pursuant to SEC regulations, which are generally transactions in which:

- Grace is a participant;
- the amount involved exceeds \$120,000; and
-

any related person, such as a Grace executive officer, director, director nominee, 5% stockholder or any of their respective family members, has a direct or indirect material interest.

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Each such related person transaction shall be reviewed, determined to be in, or not inconsistent with, the best interests of Grace and its stockholders and approved or ratified by:

the disinterested members of the Audit Committee, if the disinterested members of the Audit Committee constitute a majority of the members of the Audit Committee; or  
 the disinterested members of the Board.

In the event a related person transaction is entered into without prior approval and, after review by the Audit Committee or the Board, as the case may be, the transaction is not ratified, we will make all reasonable efforts to cancel the transaction.

#### Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The Audit Committee of the Board of Directors selected PricewaterhouseCoopers LLP, or PwC, to act as our principal independent accountants for 2012. The following table sets forth the fees that we incurred for the services of PwC for the year ended December 31, 2011 and our estimate of the fees that we incurred for the year ended December 31, 2012:

Fee Description	2012*	2011
Audit Fees	\$4,591,900	\$4,021,100
Audit-Related Fees	167,600	24,800
Tax Fees	352,500	472,800
All Other Fees	25,900	9,000
Total Fees	\$5,137,900	\$4,527,700

\* For 2012, amounts are current estimates in respect of services received for which final invoices have not been submitted.

Audit Services consisted of the audit of our Consolidated Financial Statements and our internal controls over financial reporting (as required under Section 404 of the Sarbanes-Oxley Act of 2002), the review of our consolidated quarterly financial statements and statutory audits of certain of Grace's non-U.S. subsidiaries and affiliates.

Audit-Related Services primarily consisted of audits of employee benefit plans and review procedures that are not required by statute or regulation and were performed at the request of the Company.

Tax Services consisted of tax advice and compliance for non-U.S. subsidiaries, including preparation of tax returns, and advice and assistance with transfer pricing compliance.

All Other Fees consisted of license fees for access to accounting, tax, and financial reporting literature and non-financial agreed-upon procedures.

The Audit Committee has adopted a preapproval policy that requires the Audit Committee to specifically preapprove the annual engagement of the independent accountants for the audit of our Consolidated Financial Statements and internal controls. The policy also provides for preapproval of certain audit-related, tax and other services provided by the independent accountants. Any other services must be specifically preapproved by the Audit Committee. However, the Chair of the Audit Committee has the authority to preapprove services requiring immediate engagement between scheduled meetings of the Audit Committee. The Chair must report any such preapproval decisions to the full Audit Committee at its next scheduled meeting. During 2012 and 2011, no audit-related, tax, or other services were performed by PwC without specific or general approval as described above.

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## PART IV

## Item 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

Financial Statements and Schedules. The required information is set forth in the Financial Supplement under the heading "Table of Contents" which is incorporated herein by reference.

Exhibits. The exhibits to this Report are listed below. Other than exhibits that are filed herewith, all exhibits listed below are incorporated by reference.

For purposes of describing these exhibits, "Old Grace" means W. R. Grace & Co., a Delaware corporation (subsequently renamed Sealed Air Corporation), a predecessor to Grace, and "Grace New York" means W. R. Grace & Co., a New York corporation (subsequently renamed Fresenius Medical Care Holdings, Inc.), a predecessor to Old Grace.

In reviewing the agreements included as exhibits to this and other Reports filed by Grace with the Securities and Exchange Commission, please remember they are included to provide you with information regarding their terms and are not intended to provide any other factual or disclosure information about Grace or other parties to the agreements. The agreements generally contain representations and warranties by each of the parties to the applicable agreement. These representations and warranties have been made solely for the benefit of the other parties to the applicable agreement. These representations and warranties:

- are not statements of fact, but rather are used to allocate risk to one of the parties if the statements prove to be inaccurate;
- may have been qualified by disclosures that were made to the other parties in connection with the negotiation of the applicable agreement, which disclosures are not necessarily reflected in the agreement;
- may apply standards of materiality in a way that is different from what may be viewed as material to you or other investors; and
- were made only as of the date of the applicable agreement or such other date or dates as may be specified in the agreement and do not reflect more recent developments.

Accordingly, these representations and warranties may not describe the actual state of affairs as of the date they were made or at any other time. Additional information about Grace may be found elsewhere in this report and Grace's other public filings, which are available without charge through the Securities and Exchange Commission's website at <http://www.sec.gov>.

Exhibit No.	Exhibit	Location
2.1	Form of Distribution Agreement, by and among Old Grace, W. R. Grace & Co.-Conn. and Grace Specialty Chemicals, Inc. (now named W. R. Grace & Co.)	Annex B to the Joint Proxy Statement/Prospectus dated February 13, 1998 of Old Grace and Sealed Air Corporation included in Form S-4 (filed 2/13/98) SEC File No.: 333-46281
2.2	Proposed Joint Plan of Reorganization of W. R. Grace & Co. and its debtor subsidiaries dated February 27, 2009	Exhibit 2.2 to Form 10-K (filed 3/02/09) SEC File No.: 001-13953
3.1	Restated Certificate of Incorporation of W. R. Grace & Co.	Exhibit 3.1 to Form 8-K (filed 4/8/98) SEC File No.: 001-13953
3.2	Amended and Restated By-laws of W. R. Grace & Co.	Exhibit 3.1 to Form 8-K (filed 2/27/09) SEC File No.: 001-13953
4.1	Amended and Restated Rights Agreement dated as of March 25, 2008 between W. R. Grace & Co. and Mellon Investor Services LLC, as Rights Agent	Exhibit 4.1 to Form 10/A (filed 3/25/08) SEC File No.: 001-13953



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Exhibit No.	Exhibit	Location
4.2	Order of Delaware Bankruptcy Court limiting certain transfers of Grace equity securities	Exhibit 4.2 to Form 10-K (filed 3/02/09) SEC File No.: 001-13953
4.3	Credit Agreement dated as of May 14, 1998, among W. R. Grace & Co.-Conn., W. R. Grace & Co., the several banks parties thereto; the co-agents signatories thereto; The Chase Manhattan Bank, as administrative agent for such banks; and Chase Securities Inc., as arranger	Exhibit 4.1 to Form 10-Q (filed 8/14/98) SEC File No.: 001-13953
4.4	364-Day Credit Agreement, dated as of May 5, 1999, among W. R. Grace & Co.-Conn.; W. R. Grace & Co.; the several banks parties thereto; the co-agents signatories thereto; Bank of America National Trust and Savings Association, as documentation agent; The Chase Manhattan Bank, as administrative agent for such banks; and Chase Securities Inc., as book manager	Exhibit 4.1 to Form 10-Q (filed 8/13/99) SEC File No.: 001-13953
4.5	First Amendment to 364-Day Credit Agreement dated as of May 5, 1999 among W. R. Grace & Co.-Conn.; W. R. Grace & Co.; the several banks parties thereto; Bank of America National Trust and Savings Association, as document agent; The Chase Manhattan Bank, as administrative agent for such banks; and Chase Securities, Inc., as bank manager	Exhibit 4 to Form 10-Q (filed 8/15/00) SEC File No.: 001-13953
4.6	Receivables Purchase Agreement dated as of January 23, 2007 between Grace GmbH & Co. KG and Coface Finanz GmbH	Exhibit 4.10 to Form 10-K (filed 3/02/07) SEC File No.: 001-13953
10.1	Form of Employee Benefits Allocation Agreement, by and among Old Grace, W. R. Grace & Co.-Conn. and Grace Specialty Chemicals, Inc. (now named W. R. Grace & Co.)	Exhibit 10.1 to Form 10-K (filed 3/13/03) SEC File No.: 001-13953
10.2	Form of Tax Sharing Agreement, by and among Old Grace, W. R. Grace & Co.-Conn. and Grace Specialty Chemicals, Inc. (now named W. R. Grace & Co.)	Exhibit 10.2 to Form 10-K (filed 3/13/03) SEC File No.: 001-13953
10.3	W. R. Grace & Co. 2000 Stock Incentive Plan, as amended	Exhibit 10 to Form 10-Q (filed 8/14/00) SEC File No.: 001-13953*
10.4	W. R. Grace & Co. 2011 Stock Incentive Plan	Exhibit 10.1 to Form 8-K (filed 4/13/11) SEC File No.: 001-13953*
10.5	Form of Stock Option Agreement	Exhibit 10.1 to Form 8-K (filed 4/13/11) SEC File No.: 001-13953*
10.6	W. R. Grace & Co. Supplemental Executive Retirement Plan, as amended	Exhibit 10.7 to Form 10-K (filed 3/28/02) SEC File No.: 001-13953*
10.7	W. R. Grace & Co. Executive Salary Protection Plan, as amended	Exhibit 10.8 to Form 10-K (filed 3/28/02) SEC File No.: 001-13953*
10.8	Long-Term Incentive Program Administrative Practices	Exhibit 10.4 to Form 8-K (filed 5/11/10) SEC File No.: 001-13953*
10.9	Form of 2010-2012 Long-Term Incentive Program Cash Award	Exhibit 10.3 to Form 8-K (filed 5/11/10) SEC File No.:

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10.10	Form of Executive Severance Agreement between Grace and certain officers	001-13953* Exhibit 10.17 to Form 10-K (filed 3/13/03) SEC File No.: 001-13953*
10.11	Severance Pay Plan for Salaried Employees	Exhibit 10.17 to Form 10-K (filed 3/02/07) SEC File No.: 001-13953*
10.12	Form of Retention Agreement between Grace and certain officers (includes enhanced severance provision)	Exhibit 10.28 to Form 10-K (filed 4/16/01) SEC File No.: 001-13953*

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Exhibit No.	Exhibit	Location
10.13	Annual Incentive Compensation Program	Exhibit 10.1 to Form 8-K (filed 2/28/11) SEC File No.: 001-13953*
10.14	Letter Agreement dated May 27, 2009 between John F. Akers, on behalf of Grace, and Fred Festa	Exhibit 10.1 to Form 8-K (filed 5/29/09) SEC File No.: 001-13953*
10.15	Letter Agreement dated February 28, 2008 between Fred Festa, on behalf of Grace, and Hudson La Force III (includes enhanced severance provision)	Exhibit 10.1 to Form 8-K (filed 3/07/08) SEC File No.: 001-13953*
12	Computation of Ratio of Earnings to Fixed Charges and Combined Fixed Charges and Preferred Stock Dividends	Filed herewith
21	List of Subsidiaries of W. R. Grace & Co.	Filed herewith
23	Consent of Independent Accountants	Filed herewith
24	Powers of Attorney	Filed herewith
31.(i).1	Certification of Periodic Report by Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
31.(i).2	Certification of Periodic Report by Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002	Filed herewith
32	Certification of Periodic Report by Chief Executive Officer and Chief Financial Officer under Section 906 of the Sarbanes-Oxley Act of 2002	Filed herewith
95	Mine Safety Disclosure Exhibit	Filed herewith
101.INS	XBRL Instance Document	Filed herewith
101.SCH	XBRL Taxonomy Extension Schema	Filed herewith
101.CAL	XBRL Taxonomy Extension Calculation Linkbase	Filed herewith
101.DEF	XBRL Taxonomy Extension Definition Linkbase	Filed herewith
101.LAB	XBRL Taxonomy Extension Label Linkbase	Filed herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase	Filed herewith

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\*Management contracts and compensatory plans, contracts or arrangements required to be filed as exhibits to this Report.

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SIGNATURES

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

W. R. GRACE & CO.  
 By: /s/ ALFRED E. FESTA  
 Alfred E. Festa  
 (Chairman and Chief Executive Officer)  
 By: /s/ HUDSON LA FORCE III  
 Hudson La Force III  
 (Senior Vice President and  
 Chief Financial Officer)  
 By: /s/ WILLIAM C. DOCKMAN  
 William C. Dockman  
 (Vice President and Controller)

Dated: February 27, 2013

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities indicated on February 27, 2013.

Signature	Title
J. F. Akers*	}
H. F. Baldwin*	}
R. C. Cambre*	}
M. A. Fox*	}
J. K. Henry*	} Directors
J. N. Quinn*	}
C. J. Steffen*	}
M. E. Tomkins*	}
/s/ ALFRED E. FESTA (Alfred E. Festa)	Chairman, Chief Executive Officer and Director (Principal Executive Officer)
/s/ HUDSON LA FORCE III (Hudson La Force III)	Senior Vice President and Chief Financial Officer (Principal Financial Officer)
/s/ WILLIAM C. DOCKMAN (William C. Dockman)	Vice President and Controller (Principal Accounting Officer)

By signing his name hereto, Mark A. Shelnitz is signing this document on behalf of each of the persons indicated \*above pursuant to powers of attorney duly executed by such persons and filed with the Securities and Exchange Commission.

By: /s/ MARK A. SHELNITZ  
 Mark A. Shelnitz  
 (Attorney-in-Fact)

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FINANCIAL SUPPLEMENT  
W. R. GRACE & CO.  
ANNUAL REPORT ON FORM 10-K  
FOR THE YEAR ENDED DECEMBER 31, 2012

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The financial data listed above appearing in this Financial Supplement are incorporated by reference herein. The Financial Statement Schedule should be read in conjunction with the Consolidated Financial Statements and Notes thereto. Financial statements of less than majority-owned persons and other persons accounted for by the equity method have been omitted as provided in Rule 3-09 of the United States Securities and Exchange Commission's (SEC) Regulation S-X. Financial Statement Schedules not included have been omitted because they are not applicable or the required information is shown in the Consolidated Financial Statements or Notes thereto.

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## Management's Report on Financial Information and Internal Controls

**Responsibility For Financial Information**—We are responsible for the preparation, accuracy, integrity and objectivity of the Consolidated Financial Statements and the other financial information included in this report. Such information has been prepared in conformity with accounting principles generally accepted in the United States of America and accordingly, includes certain amounts that represent management's best estimates and judgments. Actual amounts could differ from those estimates.

**Responsibility for Internal Controls**—We are also responsible for establishing and maintaining adequate internal controls over financial reporting. These internal controls consist of policies and procedures that are designed to assess and monitor the effectiveness of the control environment including risk identification, governance structure, delegations of authority, information flow, communications and control activities. A chartered Disclosure Committee oversees Grace's public financial reporting process and key managers are required to confirm their compliance with Grace's policies and internal controls quarterly. While no system of internal controls can ensure elimination of all errors and irregularities, Grace's internal controls, which are reviewed and modified in response to changing conditions, have been designed to provide reasonable assurance that assets are safeguarded, policies and procedures are followed, transactions are properly executed and reported, and appropriate disclosures are made. The concept of reasonable assurance is based on the recognition that there are limitations in all systems of internal control and that the costs of such systems should be balanced with their benefits. The Audit Committee of the Board of Directors, which is composed solely of independent directors, meets regularly with Grace's senior financial management, internal auditors and independent registered public accounting firm to review audit plans and results, as well as the actions taken by management in discharging its responsibilities for accounting, financial reporting and internal controls. The Audit Committee is responsible for the selection and compensation of the independent registered public accounting firm. Grace's financial management, internal auditors and independent registered public accounting firm have direct and confidential access to the Audit Committee at all times.

**Report On Internal Control Over Financial Reporting**—We and our management have evaluated Grace's internal control over financial reporting as of December 31, 2012. This evaluation was based on criteria for effective internal control over financial reporting set forth in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, we and our management have concluded that Grace's internal control over financial reporting is effective as of December 31, 2012. Grace's independent registered public accounting firm that audited our financial statements included in Item 15 has also audited the effectiveness of Grace's internal control over financial reporting as of December 31, 2012, as stated in their report, which appears on the following page.

**Report On Disclosure Controls And Procedures**—As of December 31, 2012, we carried out an evaluation of the effectiveness of the design and operation of Grace's disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based upon that evaluation, we concluded that Grace's disclosure controls and procedures are effective in ensuring that information required to be disclosed in Grace's periodic filings under the Exchange Act is accumulated and communicated to us to allow timely decisions regarding required disclosures, and such information is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

/s/ A. E. FESTA

A. E. Festa  
Chief Executive Officer

February 27, 2013

/s/ HUDSON LA FORCE III

Hudson La Force III  
Senior Vice President and  
Chief Financial Officer

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Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of W. R. Grace & Co.:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income, equity (deficit), and cash flows present fairly, in all material respects, the financial position of W.R Grace & Co. and its subsidiaries (the "Company") at December 31, 2012 and December 31, 2011, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the accompanying index presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2012, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, on April 2, 2001, the Company and substantially all of its domestic subsidiaries voluntarily filed for protection under Chapter 11 of the United States Bankruptcy Code, which raises substantial doubt about the Company's ability to continue as a going concern in its present form. Management's intentions with respect to this matter are described in Note 2. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

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

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become

inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

McLean, Virginia

February 27, 2013

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Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-8 (No. 333-37024 & 333-173785) of W.R. Grace & Co. of our report dated February 27, 2013 relating to the financial statements, financial statement schedules and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

PricewaterhouseCoopers LLP

McLean, Virginia

February 27, 2013

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Table of ContentsW. R. Grace & Co. and Subsidiaries  
Consolidated Statements of Operations

(In millions, except per share amounts)	Year Ended December 31,			
	2012	2011	2010	
Net sales	\$3,155.5	\$3,211.9	\$2,675.0	
Cost of goods sold	1,989.2	2,050.6	1,726.4	
Gross profit	1,166.3	1,161.3	948.6	
Selling, general and administrative expenses	537.5	568.4	514.4	
Restructuring expenses and related asset impairments	6.9	6.9	11.2	
Research and development expenses	64.5	68.5	60.3	
Defined benefit pension expense	71.2	63.4	77.1	
Interest expense and related financing costs	46.5	43.3	41.3	
Provision for environmental remediation	3.6	17.8	4.5	
Chapter 11 expenses, net of interest income	16.6	20.0	17.7	
Libby medical program settlement	19.6	—	—	
Provision for asbestos-related contingencies	365.0	—	—	
Equity in earnings of unconsolidated affiliate	(18.5	) (15.2	) (17.8	)
Other (income) expense, net	(4.4	) 4.7	—	
Total costs and expenses	1,108.5	777.8	708.7	
Income before income taxes	57.8	383.5	239.9	
Benefit from (provision for) income taxes	37.3	(114.7	) (32.5	)
Net income	95.1	268.8	207.4	
Less: Net loss (income) attributable to noncontrolling interests	(1.0	) 0.6	(0.3	)
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	\$207.1	
Earnings Per Share Attributable to W. R. Grace & Co. Shareholders				
Basic earnings per share:				
Net income attributable to W. R. Grace & Co. shareholders	\$1.26	\$3.66	\$2.85	
Weighted average number of basic shares	74.9	73.6	72.7	
Diluted earnings per share:				
Net income attributable to W. R. Grace & Co. shareholders	\$1.23	\$3.57	\$2.78	
Weighted average number of diluted shares	76.3	75.5	74.4	

The Notes to Consolidated Financial Statements are an integral part of these statements.

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## W. R. Grace &amp; Co. and Subsidiaries

## Consolidated Statements of Comprehensive Income

(In millions)	Year Ended December 31,		
	2012	2011	2010
Net income	\$95.1	\$268.8	\$207.4
Other comprehensive income (loss):			
Defined benefit pension and other postretirement plans, net of income taxes	(36.6	) (46.7	) (14.8
Currency translation adjustments	5.4	(11.6	) 12.2
Gain (loss) from hedging activities, net of income taxes	2.4	(2.1	) (1.0
Total other comprehensive income (loss) attributable to noncontrolling interests	0.8	1.8	(2.1
Total other comprehensive loss	(28.0	) (58.6	) (5.7
Comprehensive income	67.1	210.2	201.7
Less: comprehensive (income) loss attributable to noncontrolling interests	(1.8	) (1.2	) 1.8
Comprehensive income attributable to W. R. Grace & Co. shareholders	\$65.3	\$209.0	\$203.5

The Notes to Consolidated Financial Statements are an integral part of these statements.

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Table of ContentsW. R. Grace & Co. and Subsidiaries  
Consolidated Statements of Cash Flows

(In millions)	Year Ended December 31,		
	2012	2011	2010
<b>OPERATING ACTIVITIES</b>			
Net income	\$95.1	\$268.8	\$207.4
Reconciliation to net cash provided by operating activities:			
Depreciation and amortization	119.0	120.0	115.6
Equity in earnings of unconsolidated affiliate	(18.5	) (15.2	) (17.8
Dividend received from unconsolidated affiliate	6.3	10.9	0.5
Chapter 11 expenses, net of interest income	16.6	20.0	17.7
Chapter 11 expenses paid	(15.5	) (20.6	) (28.6
Libby medical program settlement	19.6	—	—
Libby medical program settlement paid	(19.6	) —	—
Provision for asbestos-related contingencies	365.0	—	—
(Benefit from) provision for income taxes	(37.3	) 114.7	32.5
Income taxes paid, net of refunds	(82.6	) (44.7	) (13.8
Tax benefits from stock-based compensation	(36.8	) —	—
Interest accrued on pre-petition liabilities subject to compromise	40.4	39.0	37.5
Restructuring expenses and related asset impairments	6.9	6.9	11.2
Payments for restructuring expenses	(8.4	) (7.2	) (13.9
Defined benefit pension expense	71.2	63.4	77.1
Payments under defined benefit pension arrangements	(126.8	) (265.1	) (63.3
Provision for environmental remediation	3.6	17.8	4.5
Expenditures for environmental remediation	(13.0	) (11.8	) (8.0
Changes in assets and liabilities, excluding effect of currency translation:			
Trade accounts receivable	(3.0	) (80.6	) (15.8
Inventories	53.9	(66.9	) (37.1
Accounts payable	(11.7	) 52.6	35.5
All other items, net	29.2	17.4	(15.3
Net cash provided by operating activities	453.6	219.4	325.9
<b>INVESTING ACTIVITIES</b>			
Capital expenditures	(138.5	) (144.0	) (111.1
Businesses acquired, net of cash acquired	(80.0	) (55.8	) (34.7
Transfer to restricted cash and cash equivalents	(61.1	) (38.8	) (97.8
Proceeds from sales of product lines	—	10.0	—
Other investing activities	(0.7	) 7.7	0.5
Net cash used for investing activities	(280.3	) (220.9	) (243.1
<b>FINANCING ACTIVITIES</b>			
Net borrowings under credit arrangements	35.9	21.6	28.9
Proceeds from exercise of stock options	32.2	12.1	10.4
Tax benefits from stock-based compensation	36.8	—	—
Other financing activities	5.4	6.0	2.2
Net cash provided by financing activities	110.3	39.7	41.5
Effect of currency exchange rate changes on cash and cash equivalents	5.0	(5.6	) (1.6
Increase in cash and cash equivalents	288.6	32.6	122.7
Cash and cash equivalents, beginning of period	1,048.3	1,015.7	893.0

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Cash and cash equivalents, end of period	\$1,336.9	\$1,048.3	\$1,015.7
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The Notes to Consolidated Financial Statements are an integral part of these statements.

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## W. R. Grace &amp; Co. and Subsidiaries

## Consolidated Balance Sheets

(In millions, except par value and shares)

	December 31, 2012	December 31, 2011
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$1,336.9	\$1,048.3
Restricted cash and cash equivalents	197.6	136.5
Trade accounts receivable, less allowance of \$5.2 (2011—\$8.1)	474.8	461.8
Accounts receivable—unconsolidated affiliate	15.6	11.2
Inventories	278.6	329.1
Deferred income taxes	58.3	66.5
Other current assets	78.4	93.0
Total Current Assets	2,440.2	2,146.4
Properties and equipment, net of accumulated depreciation and amortization of \$1,785.1 (2011—\$1,722.7)	770.5	723.5
Goodwill	196.7	148.2
Patents, licenses and other intangible assets, net	82.7	70.6
Deferred income taxes	956.3	759.4
Asbestos-related insurance	500.0	500.0
Overfunded defined benefit pension plans	33.8	37.1
Investments in unconsolidated affiliate	85.5	70.8
Other assets	24.5	38.0
Total Assets	\$5,090.2	\$4,494.0
<b>LIABILITIES AND EQUITY</b>		
Liabilities Not Subject to Compromise		
Current Liabilities		
Debt payable within one year	\$83.4	\$57.9
Debt payable—unconsolidated affiliate	3.6	3.4
Accounts payable	249.4	257.1
Accounts payable—unconsolidated affiliate	2.6	0.5
Other current liabilities	307.3	314.0
Total Current Liabilities	646.3	632.9
Debt payable after one year	13.4	3.3
Debt payable—unconsolidated affiliate	22.4	18.3
Deferred income taxes	27.1	19.8
Underfunded and unfunded defined benefit pension plans	400.6	407.4
Other liabilities	45.0	49.1
Total Liabilities Not Subject to Compromise	1,154.8	1,130.8
Liabilities Subject to Compromise—Note 2		
Debt plus accrued interest	973.3	941.8
Income tax contingencies	87.6	69.3
Asbestos-related contingencies	2,065.0	1,700.0
Environmental contingencies	140.5	149.9
Postretirement benefits	188.1	185.2
Other liabilities and accrued interest	162.6	149.5
Total Liabilities Subject to Compromise	3,617.1	3,195.7
Total Liabilities	4,771.9	4,326.5
Commitments and Contingencies—Note 12		

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Equity		
Common stock issued, par value \$0.01; 300,000,000 shares authorized; outstanding: 75,565,409 (2011—73,886,050)	0.8	0.7
Paid-in capital	536.5	472.9
Retained earnings	395.2	301.1
Treasury stock, at cost: shares: 1,414,351 (2011—3,093,710)	(16.8	) (36.8
Accumulated other comprehensive loss	(607.3	) (578.5
Total W. R. Grace & Co. Shareholders' Equity	308.4	159.4
Noncontrolling interests	9.9	8.1
Total Equity	318.3	167.5
Total Liabilities and Equity	\$5,090.2	\$4,494.0

The Notes to Consolidated Financial Statements are an integral part of these statements.

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## W. R. Grace &amp; Co. and Subsidiaries

## Consolidated Statements of Equity (Deficit)

(In millions)	Common Stock and Paid-in Capital	Retained Earnings (Accumulated Deficit)	Treasury Stock	Accumulated Other Comprehensive Loss	Noncontrolling Interests	Total Equity (Deficit)
Balance, December 31, 2009	\$446.6	\$(175.4	) \$(55.9	) \$(514.5	) \$ 8.7	\$(290.5 )
Net income	—	207.1	—	—	0.3	207.4
Stock plan activity	10.0	—	10.0	—	—	20.0
Other comprehensive loss	—	—	—	(3.6	) (2.1	) (5.7 )
Balance, December 31, 2010	\$456.6	31.7	(45.9	) (518.1	) 6.9	(68.8 )
Net income (loss)	—	269.4	—	—	(0.6	) 268.8
Stock plan activity	17.0	—	9.1	—	—	26.1
Other comprehensive income (loss)	—	—	—	(60.4	) 1.8	(58.6 )
Balance, December 31, 2011	\$473.6	301.1	(36.8	) (578.5	) 8.1	167.5
Net income	—	94.1	—	—	1.0	95.1
Stock plan activity	63.7	—	20.0	—	—	83.7
Other comprehensive income (loss)	—	—	—	(28.8	) 0.8	(28.0 )
Balance, December 31, 2012	\$537.3	\$395.2	\$(16.8	) \$(607.3	) \$ 9.9	\$318.3

The Notes to Consolidated Financial Statements are an integral part of these statements.

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Notes to Consolidated Financial Statements

1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies

W. R. Grace & Co., through its subsidiaries, is engaged in specialty chemicals and specialty materials businesses on a global basis through three operating segments: Grace Catalysts Technologies, which includes catalysts and related products used in refining, petrochemical and other chemical manufacturing applications; Grace Materials Technologies, which includes packaging technologies and engineered materials used in consumer, industrial, coatings, and pharmaceutical applications; and Grace Construction Products, which includes specialty construction chemicals and specialty building materials used in commercial, infrastructure and residential construction.

W. R. Grace & Co. conducts substantially all of its business through a direct, wholly-owned subsidiary, W. R. Grace & Co.-Conn. ("Grace-Conn."). Grace-Conn. owns substantially all of the assets, properties and rights of W. R. Grace & Co. on a consolidated basis, either directly or through subsidiaries.

As used in these notes, the term "Company" refers to W. R. Grace & Co. The term "Grace" refers to the Company and/or one or more of its subsidiaries and, in certain cases, their respective predecessors.

**Voluntary Bankruptcy Filing** During 2000 and the first quarter of 2001, Grace experienced several adverse developments in its asbestos-related litigation, including: a significant increase in personal injury claims, higher than expected costs to resolve personal injury and certain property damage claims, and class action lawsuits alleging damages from ZONOLITE® Attic Insulation ("ZAI"), a former Grace attic insulation product.

After a thorough review of these developments, Grace's Board of Directors concluded that a federal court-supervised bankruptcy process provided the best forum available to achieve fairness in resolving these claims and on April 2, 2001 (the "Filing Date"), Grace and 61 of its United States subsidiaries and affiliates, (collectively, the "Debtors"), filed voluntary petitions for reorganization (the "Filing") under Chapter 11 of the United States Bankruptcy Code in the United States Bankruptcy Court for the District of Delaware (the "Bankruptcy Court"). The cases were consolidated and are being jointly administered under case number 01-01139 (the "Chapter 11 Cases"). Grace's non-U.S. subsidiaries and certain of its U.S. subsidiaries were not included in the Filing.

Under Chapter 11, the Debtors have continued to operate their businesses as debtors-in-possession under court protection from creditors and claimants, while using the Chapter 11 process to develop and implement a plan for addressing the asbestos-related claims. Since the Filing, all motions necessary to conduct normal business activities have been approved by the Bankruptcy Court. (See Note 2 for Chapter 11 Information.)

**Principles of Consolidation** The Consolidated Financial Statements include the accounts of Grace and entities as to which Grace exercises control over operating and financial policies. Grace consolidates the activities of variable interest entities in circumstances where management determines that Grace is the primary beneficiary of the variable interest entity. Intercompany transactions and balances are eliminated in consolidation. Investments in affiliated companies in which Grace can significantly influence operating and financial policies are accounted for under the equity method, unless Grace's investment is deemed to be temporary, in which case the investment is accounted for under the cost method.

**Operating Segments** Grace reports financial results of each of its operating segments that engage in business activities that generate revenues and expenses, and whose operating results are regularly reviewed by Grace's Chief Executive Officer.

**Noncontrolling Interests in Consolidated Entities** Grace conducts certain of its business through joint ventures with unaffiliated third parties. For joint ventures in which Grace has a controlling financial interest, Grace consolidates the results of such joint ventures in the Consolidated Financial Statements. Grace recognizes a liability for cumulative amounts due to the third parties based on the financial results of the joint ventures, and deducts the amount of income attributable to noncontrolling interests in the measurement of its consolidated net income.

**Reclassifications** Certain amounts in prior years' Consolidated Financial Statements have been reclassified to conform to the current year presentation. Such reclassifications have not materially affected previously reported amounts in the Consolidated Financial Statements.

**Use of Estimates** The preparation of financial statements in conformity with U.S. generally accepted accounting principles (U.S. GAAP) requires management to make estimates and assumptions that affect the reported amount of



assets and liabilities and disclosure of contingent assets and liabilities at the date of the

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## Notes to Consolidated Financial Statements (Continued)

## 1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies (Continued)

Consolidated Financial Statements, and the reported amounts of revenues and expenses for the periods presented. Actual amounts could differ from those estimates, and the differences could be material. Changes in estimates are recorded in the period identified. Grace's accounting measurements that are most affected by management's estimates of future events are:

- Contingent liabilities, which depend on an assessment of the probability of loss and an estimate of ultimate resolution cost, such as asbestos-related matters and litigation (see Notes 2 and 3), income taxes (see Note 9), and environmental remediation (see Note 12);

- Pension and postretirement liabilities that depend on assumptions regarding participant life spans, future inflation, discount rates and total returns on invested funds (see Note 10);

- Realization values of net deferred tax assets and insurance receivables, which depend on projections of future income and cash flows and assessments of insurance coverage and insurer solvency; and

- Recoverability of goodwill, which depends on assumptions used to value reporting units, such as observable market inputs, projections of future cash flows and weighted average cost of capital.

The accuracy of management's estimates may be materially affected by the uncertainties arising under Grace's Chapter 11 proceeding.

**Revenue Recognition** Grace recognizes revenue when all of the following criteria are satisfied: risk of loss and title transfer to the customer; the price is fixed and determinable; persuasive evidence of a sales arrangement exists; and collectability is reasonably assured. Risk of loss and title transfers to customers are based on individual contractual terms which generally specify the point of shipment. Terms of delivery are generally included in customer contracts of sale, order confirmation documents and invoices.

Certain customer arrangements include conditions for volume rebates. Grace accrues a rebate allowance and reduces recorded sales for anticipated selling price adjustments at the time of sale. Grace regularly reviews rebate accruals based on actual and anticipated sales patterns.

**Cash Equivalents** Cash equivalents consist of liquid instruments and investments with maturities of three months or less when purchased. The recorded amounts approximate fair value.

**Inventories** Inventories are stated at the lower of cost or market. The method used to determine cost is first-in/first-out, or "FIFO." Market values for raw materials are based on current cost and, for other inventory classifications, net realizable value. Inventories are evaluated regularly for salability, and slow moving and/or obsolete items are adjusted to expected salable value. Inventory values include direct and certain indirect costs of materials and production. Abnormal costs of production are expensed as incurred.

**Long Lived Assets** Properties and equipment are stated at cost. Depreciation of properties and equipment is generally computed using the straight-line method over the estimated useful life of the asset. Estimated useful lives range from 20 to 40 years for buildings, 3 to 7 years for information technology equipment, 3 to 10 years for operating machinery and equipment, and 5 to 10 years for furniture and fixtures. Interest is capitalized in connection with major project expenditures. Fully depreciated assets are retained in properties and equipment and related accumulated depreciation accounts until they are removed from service. In the case of disposals, assets and related accumulated depreciation are removed from the accounts and the net amount, less any proceeds from disposal, is charged or credited to earnings. Obligations for costs associated with asset retirements, such as requirements to restore a site to its original condition, are accrued at net present value and amortized along with the related asset.

Other intangible assets with finite lives consist of customer lists, technology, patents and trademarks and other intangibles and are amortized over their estimated useful lives, ranging from 1 to 20 years.

Grace reviews long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be fully recoverable. No impairment charge was required in 2012 or 2010; however, there were impairment charges related to certain restructuring activities in 2011 (see Note 13).

**Goodwill** Goodwill arises from certain business combinations. Grace reviews its goodwill for impairment on an annual basis at October 31 and whenever events or changes in circumstances indicate that the carrying amount



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## Notes to Consolidated Financial Statements (Continued)

## 1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies (Continued)

may not be fully recoverable. Recoverability is assessed at the reporting unit level most directly associated with the business combination that generated the goodwill. For the purpose of measuring impairment under the provisions of ASC 350 "Intangibles—Goodwill and Other", Grace has identified its reporting units as the product groups at one level below its operating segments. Grace has evaluated its goodwill annually with no impairment charge required in any of the periods presented.

The Grace Construction Products Europe reporting unit continues to operate in a challenging environment. Grace believes that the fair value of this reporting unit exceeds its carrying value; however, if market conditions or business performance deteriorate further, Grace may be required to record a non-cash impairment charge to reduce the carrying value of this reporting unit.

**Income Taxes** Deferred tax assets and liabilities are recognized with respect to the expected future tax consequences of events that have been recorded in the Consolidated Financial Statements. If it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is provided against such deferred tax assets. The assessment of realization of deferred tax assets is performed under scenarios of future taxable income and tax planning strategies that are considered reasonable in the circumstances.

Grace records a liability for income tax contingencies when it is more likely than not that a tax position it has taken will not be sustained upon audit. Grace evaluates such likelihood based on relevant facts and tax law. Grace adjusts its recorded liability for income tax matters due to changes in circumstances or new uncertainties, such as amendments to existing tax law. Grace's ultimate tax liability depends upon many factors, including negotiations with taxing authorities in the jurisdictions in which it operates, outcomes of tax litigation, and resolution of disputes arising from federal, state, and foreign tax audits. Due to the varying tax laws in each jurisdiction senior management, with the assistance of local tax advisors as necessary, assesses individual matters in each jurisdiction on a case-by-case basis. Grace researches and evaluates its income tax positions, including why it believes they are compliant with income tax regulations, and these positions are documented internally.

Tax benefits from an uncertain tax position are recognized only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities based on the technical merits of the position. Tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement.

**Currency Translation** Assets and liabilities of foreign subsidiaries (other than those located in countries with highly inflationary economies) are translated into U.S. dollars at current exchange rates, while revenues, costs and expenses are translated at average exchange rates during each reporting period. The resulting translation adjustments are included in "accumulated other comprehensive loss" in the Consolidated Balance Sheets. The financial statements of any subsidiaries located in countries with highly inflationary economies are remeasured as if the functional currency were the U.S. dollar; the remeasurement creates translation adjustments that are reflected in net income in the Consolidated Statements of Operations.

On February 8, 2013, the Venezuelan government announced that, effective February 13, 2013, the official exchange rate of the bolivar to U.S. dollar would devalue from 4.3 to 6.3. As a result of this currency devaluation, Grace expects to incur a charge to net income in the range of \$13 million to \$14 million in the 2013 first quarter. Of this amount, approximately \$2 million to \$3 million will be included in segment operating income.

**Financial Instruments** Grace uses commodity forward, swap and/or option contracts and currency forward and/or option contracts to manage exposure to fluctuations in commodity prices and currency exchange rates. Grace does not hold or issue derivative financial instruments for trading purposes. Derivative instruments are recorded in the Consolidated Balance Sheets as either assets or liabilities at their fair value. For derivative instruments designated as fair value hedges, changes in the fair values of the derivative instruments closely offset changes in the fair values of the hedged items in "other (income) expense" in the Consolidated Statements of Operations. For derivative instruments designated as cash flow hedges, if the derivative instruments qualify for hedge accounting pursuant to ASC 815, the effective portion of any hedge is reported as "accumulated other comprehensive loss" in the

Consolidated Balance Sheets until it is cleared to earnings during the same period in which the hedged item affects earnings. The ineffective portion of all hedges, and changes in the fair values of derivative instruments that are not designated as hedges, are recorded in current period earnings. Cash flows from derivative instruments are reported in the same category as the cash flows from the items being hedged.

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## Notes to Consolidated Financial Statements (Continued)

## 1. Basis of Presentation and Summary of Significant Accounting and Financial Reporting Policies (Continued)

Effect of New Accounting Standards—In May 2011, the FASB issued Accounting Standard Update ("ASU") 2011-04 "Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs". This update provides additional guidance and expands the disclosure requirements related to certain aspects of fair value measurement, primarily affecting financial instruments and Level 3 assets. The new disclosures and clarifications of existing disclosures are effective for fiscal years beginning after December 15, 2011, and for interim periods within those fiscal years; early adoption is not permitted. Grace adopted this standard in 2012 and it did not have a material effect on the Consolidated Financial Statements.

In June 2011, the FASB issued ASU 2011-05 "Presentation of Comprehensive Income". This update is intended to improve the comparability, consistency, and transparency of financial reporting and to increase the prominence of items reported in other comprehensive income. The new disclosure requirements are effective for fiscal years beginning after December 15, 2011, and for interim periods within those fiscal years, with early adoption permitted. In December 2011, the FASB issued ASU 2011-12 "Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05". This update defers certain paragraphs of ASU 2011-05 pertaining to reclassification adjustments out of accumulated other comprehensive income. The deferral is effective for fiscal years beginning after December 15, 2011, and for interim periods within those fiscal years, with early adoption permitted. Grace continues to report its Consolidated Statement of Other Comprehensive Income as a separate financial statement, immediately following the Consolidated Statement of Operations to comply with the updates that have not been deferred. In February 2013, the FASB issued ASU 2013-02 "Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income", which further clarifies these disclosure requirements. This update is effective for fiscal years beginning after December 15, 2012, and for interim periods within those fiscal years, with early adoption permitted. Grace will adopt the updates in the 2013 first quarter and does not expect them to have a material effect on the Consolidated Financial Statements.

In September 2011, the FASB issued ASU 2011-08 "Testing Goodwill for Impairment". This update is intended to simplify how entities test goodwill for impairment, by allowing an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step goodwill impairment test. The new requirements are effective for fiscal years beginning after December 15, 2011, and for interim periods within those fiscal years, with early adoption permitted. Grace adopted this standard for the 2011 fourth quarter and it did not have a material effect on the Consolidated Financial Statements.

In December 2011, the FASB issued ASU 2011-11 "Disclosures about Offsetting Assets and Liabilities". This update is intended to improve the comparability of statements of financial position prepared in accordance with U.S. GAAP and IFRS, requiring both gross and net presentation of offsetting assets and liabilities. The new requirements are effective for fiscal years beginning on or after January 1, 2013, and for interim periods within those fiscal years. In January 2013, the FASB issued ASU 2013-01 "Clarifying the Scope of Disclosures about Offsetting Assets and Liabilities", which clarifies these disclosure requirements. These standards are effective for fiscal years beginning on or after January 1, 2013, and for interim periods within those fiscal years. Grace will adopt these standards for the 2013 first quarter and does not expect them to have a material effect on the Consolidated Financial Statements.

In July 2012, the FASB issued ASU 2012-02 "Testing Indefinite-Lived Intangible Assets for Impairment". This update is intended to simplify how entities test indefinite-lived intangible assets for impairment, by allowing an entity to first assess qualitative factors to determine whether it is necessary to perform a quantitative impairment test. The new requirements are effective for fiscal years beginning after September 15, 2012, and for interim periods within those fiscal years, with early adoption permitted. Grace adopted this standard for the 2012 fourth quarter and it did not have a material effect on the Consolidated Financial Statements.

## 2. Chapter 11 Information

Official Parties to Grace's Chapter 11 Cases The Bankruptcy Court has appointed four official committees. The Official Committee of Asbestos Personal Injury Claimants (the "PI Committee") and the Official Committee of

Asbestos Property Damage Claimants (the "PD Committee") respectively represent two different asbestos claimant constituencies. The other two committees are the Official Committee of Unsecured Creditors (the "Creditors' Committee"), which represents general unsecured creditors, and the Official Committee of Equity Security Holders (the "Equity Committee"), which represents equity security holders. These committees, along with a legal

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

representative of future asbestos personal injury claimants (the "PI FCR") and a legal representative of future asbestos property damage claimants (the "PD FCR"), have the right to be heard on all matters that come before the Bankruptcy Court and have important roles in the Chapter 11 Cases. The Debtors are required to bear certain costs and expenses of the committees and the representatives of future asbestos claimants, including those of their counsel and financial advisors.

As discussed below, the Debtors, the Equity Committee, the PI Committee and the PI FCR have filed a joint plan of reorganization, subsequently amended, with the Bankruptcy Court that is designed to address all pending and future asbestos-related claims and all other pre-petition claims as outlined therein (as amended to date, the "Joint Plan"). The Creditors' Committee, the PD Committee and the PD FCR are not co-proponents of the Joint Plan. On January 31, 2011, the Bankruptcy Court issued an order confirming the Joint Plan. On January 31, 2012, the United States District Court for the District of Delaware (the "District Court") issued an order affirming the Bankruptcy Court's confirmation order, denying all appeals from the confirmation order and confirming the Joint Plan in its entirety. Appeals have been filed challenging the District Court order confirming the Joint Plan. The resolution of any such appeals could have a material effect on the terms and timing of Grace's emergence from Chapter 11. In order for the Joint Plan to become effective, all conditions to the effective date set forth in the Joint Plan must be satisfied or waived.

**Plans of Reorganization** Prior to 2008, competing plans of reorganization were filed by Grace and jointly by the PI Committee and the PI FCR. Grace filed its first proposed plan with the Bankruptcy Court in November 2004 and amended it in January 2005 (the "Prior Plan"). However, in April 2008, the Debtors reached an agreement in principle with the PI Committee, the PI FCR, and the Equity Committee designed to resolve all present and future asbestos-related personal injury claims (the "PI Settlement"). A trial for estimating liability for such claims began in January 2008 but was suspended in April 2008 as a result of the PI Settlement.

As contemplated by the PI Settlement, in September 2008, the Debtors, supported by the Equity Committee, the PI Committee and the PI FCR, as co-proponents, filed the Joint Plan to reflect the terms of the PI Settlement. The Joint Plan supersedes the Prior Plan and all other previously filed plans.

In November 2008, the Debtors reached an agreement in principle (the "ZAI PD Term Sheet") with the Putative Class Counsel to the U.S. ZAI claimants, the PD FCR, and the Equity Committee designed to resolve all present and future U.S. ZAI property damage claims and demands.

In January 2011, the Company, Grace Canada, Inc. and legal representatives of Canadian ZAI property damage claimants became parties to an agreement that would settle all Canadian ZAI property damage claims and demands (the "Canadian ZAI Settlement"). Under that agreement, all Canadian ZAI property damage claims and demands would be paid through a separate Canadian ZAI property damage claims fund of CDN\$8.6 million. The Canadian ZAI Settlement is subject to the effectiveness of the Joint Plan.

The Joint Plan is designed to address all pending and future asbestos-related claims and all other pre-petition claims as outlined therein. Under the Joint Plan, two asbestos trusts would be established under Section 524(g) of the Bankruptcy Code. All asbestos-related personal injury claims would be channeled for resolution to one asbestos trust (the "PI Trust") and all asbestos-related property damage claims, including U.S. and Canadian ZAI property damage claims, would be channeled to a separate asbestos trust (the "PD Trust"). Amendments and technical modifications to the Joint Plan and several associated documents were filed by the Debtors and co-proponents on nine occasions from December 2008 through December 2010 to, among other things, reflect the agreements described above.

The Joint Plan assumes that Cryovac, Inc. ("Cryovac"), a wholly-owned subsidiary of Sealed Air Corporation ("Sealed Air"), will fund the PI Trust and the PD Trust with an aggregate of: (i) \$512.5 million in cash (plus interest at 5.5% compounded annually from December 21, 2002); and (ii) 18 million shares (reflecting a two-for-one stock split) of common stock of Sealed Air, pursuant to the terms of a settlement agreement resolving asbestos-related, successor liability and fraudulent transfer claims against Sealed Air and Cryovac (the "Sealed Air Settlement"). The value of the Sealed Air Settlement changes daily with the accrual of interest and the trading value of Sealed Air common stock. The Joint Plan also assumes that Fresenius AG ("Fresenius") will fund the PI Trust and the PD Trust with an



aggregate of \$115.0 million pursuant to the terms of a settlement agreement resolving asbestos-related, successor liability and fraudulent transfer claims against Fresenius (the "Fresenius Settlement"). The Sealed Air

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Notes to Consolidated Financial Statements (Continued)

2. Chapter 11 Information (Continued)

Settlement and the Fresenius Settlement have been approved by the Bankruptcy Court but remain subject to the fulfillment of specified conditions.

Any plan of reorganization, including the Joint Plan and any plan of reorganization that may be filed in the future by a party-in-interest, will become effective only after a vote of eligible creditors and with the approval of the Bankruptcy Court and the District Court.

All classes of creditors entitled to vote accepted the Joint Plan in May 2009. The class of general unsecured creditors, who voted on a provisional basis pending a determination as to whether the class is impaired and therefore entitled to a vote, voted to reject the Joint Plan. In January 2011, the Bankruptcy Court issued an order confirming the Joint Plan and overruling all objections. In January 2012, the District Court issued an order affirming the Bankruptcy Court's confirmation order, denying all appeals from the confirmation order and confirming the Joint Plan in its entirety. On June 11, 2012, the District Court reaffirmed the confirmation order and the denial of all appeals after motions for reconsideration. Eight parties filed notices of appeal with the United States Court of Appeals for the Third Circuit (the "Third Circuit") on or before the July 11, 2012, deadline for appeals, of which five remain pending. The appeals generally relate to demands for interest at rates higher than provided for in the Joint Plan, the validity of the asbestos channeling injunctions, and the classification and treatment of claims under the Joint Plan.

On June 5, 2012, the Bankruptcy Court approved agreements among Grace, co-proponents of the Joint Plan, BNSF, and the representatives of Libby, Montana, asbestos personal injury claimants to settle certain objections to the Joint Plan. Those agreements became effective on September 21, 2012, resulting in the withdrawal of the appeals to the Joint Plan by the Libby claimants, BNSF and an insurance company. In addition, in accordance with the agreements, Grace transferred responsibility for the former Grace-operated Libby Medical Program to a locally administered trust and funded the trust with a one-time payment of \$19.6 million. Payments to Libby claimants under the Joint Plan are not affected by the Grace-Libby agreement.

While Grace has the necessary Bankruptcy Court and District Court approvals to emerge from Chapter 11 protection, the timing of the effectiveness of the Joint Plan and Grace's subsequent emergence will depend on the satisfaction or waiver by Grace, Grace's co-proponents under the Joint Plan, and Sealed Air and Fresenius of the remaining conditions to effectiveness set forth in the Joint Plan, including the availability of any required exit financing and the final resolution of all appeals. Based upon management's review of the appeals, Grace sought to have the Joint Plan become effective and thereafter emerge from Chapter 11 prior to the final resolution of the appeals. However, Grace was unable to obtain the necessary waivers. Grace will continue to seek the favorable disposition of the five remaining appeals, which may require the completion of the appellate process.

If any of the appeals are resolved adversely to Grace and the other Joint Plan proponents, whether or not the Joint Plan has become effective and Grace has emerged, the Joint Plan may be amended to address the deficiencies identified by the Third Circuit or the Joint Plan may be terminated and a new plan proposed. If the Joint Plan cannot be amended to address all deficiencies identified by the Third Circuit in a manner satisfactory to Grace and the other Joint Plan proponents and Grace cannot reach an agreement with its asbestos creditors on the terms of a new plan of reorganization, Grace would expect to resume the estimation trial, which was suspended in April 2008 due to the PI Settlement, to determine the amount of the asbestos-related liabilities. Whether the Joint Plan is amended, either prior to or after the Joint Plan has become effective and Grace has emerged from Chapter 11, or a different plan of reorganization is ultimately confirmed, the value of the interests of holders of Company common stock could be materially different than under the current Joint Plan and the Company common stock could be substantially diluted or canceled.

**Joint Plan of Reorganization** Under the terms of the Joint Plan, claims under the Chapter 11 Cases would be satisfied as follows:

**Asbestos-Related Personal Injury Claims**

All pending and future asbestos-related personal injury claims and demands ("PI Claims") would be channeled to the PI Trust for resolution. The PI Trust would use specified trust distribution procedures to satisfy allowed PI Claims.



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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

The PI Trust would be funded with:

- \$250 million in cash plus interest thereon from January 1, 2009, to the effective date of the Joint Plan to be paid by Grace;

- Cash in the amount of the PD Initial Payment (as described below) and the ZAI Initial Payment (as described below) to be paid by Grace;

- A warrant to acquire 10 million shares of Company common stock at an exercise price of \$17.00 per share, expiring one year from the effective date of the Joint Plan. This obligation will be settled in cash with the PI Trust as discussed below;

- Rights to all proceeds under all of the Debtors' insurance policies that are available for payment of PI Claims;

- Cash in the amount of \$512.5 million plus interest thereon from December 21, 2002, to the effective date of the Joint Plan at a rate of 5.5% per annum to be paid by Cryovac reduced by the amount of Cryovac's contribution to the PD Initial Payment and the ZAI Initial Payment (as described below) and 18 million shares of Sealed Air common stock to be paid by Cryovac pursuant to the Sealed Air Settlement;

- Cash in the amount of \$115 million to be paid by Fresenius pursuant to the Fresenius Settlement reduced by the amount of Fresenius' contribution to the PD Initial Payment and the ZAI Initial Payment (as described below); and Deferred payments by Grace of \$110 million per year for five years beginning in 2019, and \$100 million per year for 10 years beginning in 2024, that would be subordinate to any bank debt or bonds outstanding, guaranteed by the Company and secured by the Company's obligation to issue 50.1% of its outstanding common stock (measured as of the effective date of the Joint Plan) to the PI Trust in the event of default.

**Asbestos-Related Property Damage Claims**

All pending and future asbestos-related property damage claims and demands ("PD Claims") would be channeled to the PD Trust for resolution. The PD Trust would contribute CDN\$8.6 million to a separate Canadian ZAI PD Claims fund through which Canadian ZAI PD Claims would be resolved. The PD Trust would generally resolve U.S. ZAI PD Claims that qualify for payment by paying 55% of the claimed amount, but in no event would the PD Trust pay more per claim than 55% of \$7,500 (as adjusted for inflation each year after the fifth anniversary of the effective date of the Joint Plan). The PD Trust would satisfy other allowed PD Claims pursuant to specified trust distribution procedures with cash payments in the allowed settlement amount. Unresolved PD Claims and future PD claims would be litigated pursuant to procedures to be approved by the Bankruptcy Court and, to the extent such claims were determined to be allowed claims, would be paid in cash by the PD Trust in the amount determined by the Bankruptcy Court.

The PD Trust would contain two accounts, the PD account and the ZAI PD account. U.S. ZAI PD Claims would be paid from the ZAI PD account and other PD Claims would be paid from the PD account. The separate Canadian ZAI PD Claims would be paid by a separate fund established in Canada. Each account would have a separate trustee and the assets of the accounts would not be commingled. The two accounts would be funded as follows:

The PD account would be funded with:

- Approximately \$152 million in cash plus cash in the amount of the estimated first six months of PD Trust expenses, to be paid by Cryovac and Fresenius (the "PD Initial Payment"), and CDN\$8.6 million in cash to be paid by Grace pursuant to the Canadian ZAI Settlement.

- A Grace obligation (the "PD Obligation") providing for a payment to the PD Trust every six months in the amount of the non-ZAI PD Claims allowed during the preceding six months plus interest and, except for the first six months, the amount of PD Trust expenses for the preceding six months. The aggregate amount to be paid under the PD Obligation would not be capped.

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

The ZAI PD account would be funded as follows (the "ZAI Assets"):

\$30 million in cash plus interest from April 1, 2009, to the effective date, to be paid by Cryovac and Fresenius (the "ZAI Initial Payment").

\$30 million in cash on the third anniversary of the effective date of the Joint Plan, to be paid by Grace.

A Grace obligation providing for the payment of up to 10 contingent deferred payments of \$8 million per year during the 20-year period beginning on the fifth anniversary of the effective date of the Joint Plan, with each such payment due only if the ZAI Assets fall below \$10 million during the preceding year.

All payments to the PD Trust that were not to be paid on the effective date of the Joint Plan would be secured by the Company's obligation to issue 50.1% of its outstanding common stock (measured as of the effective date of the Joint Plan) to the PD Trust in the event of default. Grace would have the right to conduct annual audits of the books, records and claim processing procedures of the PD Trust.

**Other Claims**

All allowed administrative claims would be paid in cash and all allowed priority claims would be paid in cash with interest. Secured claims would be paid in cash with interest or by reinstatement. Allowed general unsecured claims would be paid in cash, including any post-petition interest as follows: (i) for holders of pre-petition bank credit facilities, post-petition interest at the rate of 6.09% from the Filing Date through December 31, 2005, and thereafter at floating prime, in each case compounded quarterly; and (ii) for all other unsecured claims that are not subject to a settlement agreement providing otherwise, interest at 4.19% from the Filing Date, compounded annually, or if pursuant to an existing contract, interest at the non-default contract rate. The general unsecured creditors that hold pre-petition bank debt have argued that they are entitled to post-petition interest at the default rate specified under the terms of the underlying credit agreements, which they asserted was approximately an additional \$185 million as of December 31, 2012, and growing (Grace believes that if default interest was ultimately determined to be payable, the additional amount of accrued interest would be substantially less than that asserted by the pre-petition bank debt holders). The Bankruptcy Court and the District Court have overruled this assertion and the pre-petition bank debt holders have appealed these rulings to the Third Circuit. Unsecured employee-related claims such as pension, retirement medical obligations and workers compensation claims would be reinstated.

**Effect on Company Common Stock**

The Joint Plan provides that Company common stock will remain outstanding at the effective date of the Joint Plan, but that the interests of existing shareholders would be subject to dilution in the event of default with respect to the deferred payment obligations to the PI Trust or the PD Trust under the Company's security obligation.

In order to preserve significant tax benefits which are subject to elimination or limitation in the event of a change in control (as defined by the Internal Revenue Code) of Grace, the Joint Plan provides that under certain circumstances, the Board of Directors would have the authority to impose restrictions on the transfer of Grace common stock with respect to certain 5% shareholders. These restrictions will generally not limit the ability of a person that holds less than 5% of Grace common stock after emergence to either buy or sell stock on the open market. In addition, the Bankruptcy Court has approved trading restrictions on Grace common stock until the effective date of a plan of reorganization. These restrictions prohibit (without the consent of the Company) a person from acquiring more than 4.75% of the outstanding Grace common stock or, for any person already holding more than 4.75%, from increasing such person's holdings. This summary of the stock transfer restrictions does not purport to be complete and is qualified in its entirety by reference to the order of the Bankruptcy Court, which has been filed with the SEC.

On October 25, 2012, Grace reached agreement with the PI Committee, the PI FCR and the Equity Committee to settle the warrant in cash during the one-year period after the effective date of the Joint Plan. Under the terms of the agreement, Grace will repurchase the warrant issued to the PI Trust for a price equal to the average of the daily closing prices of Grace common stock during the period commencing one day after the effective date of the Joint Plan and ending on the day prior to the date the PI Trust elects to sell the warrant back to Grace, multiplied by 10 million (the number of shares issuable under the warrant), less \$170 million (the aggregate exercise price of the warrant), provided

that if the average of the daily closing prices is less than \$54.50 per share, then the repurchase price would be \$375 million, and if the average of the daily closing prices exceeds \$66.00 per

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

share, then the repurchase price would be \$490 million. The agreement is terminable by the PI Trust in the event a tender offer, or other proposed transaction that would result in a change in control of the Company, is announced during the one-year period after the effective date of the Joint Plan. In such event, the warrant would be settled in stock. The agreement was approved by the Bankruptcy Court on December 11, 2012.

**Claims Filings** The Bankruptcy Court established a claims bar date of March 31, 2003, for claims of general unsecured creditors, PD Claims (other than ZAI PD Claims) and medical monitoring claims related to asbestos. The March 31, 2003, claims bar date did not apply to PI Claims or claims related to ZAI PD Claims.

Approximately 14,900 proofs of claim were filed by the March 31, 2003, claims bar date. Of these claims, approximately 9,500 were non-asbestos-related, approximately 4,400 were PD Claims, and approximately 1,000 were for medical monitoring. Under the Joint Plan, the medical monitoring claims would be channeled to the PI Trust for resolution. In addition, approximately 800 proofs of claim were filed after the claims bar date.

Approximately 6,685 non-asbestos-related claims were filed by employees or former employees (the "Employee Claims") for benefits arising from Grace's employee benefit plans. As of December 31, 2012, approximately 255 of these claims remain pending and are to be addressed through the claim objection process and the dispute resolution procedures approved by the Bankruptcy Court.

The remaining non-asbestos, non-employee-related claims include claims for amounts due under pre-petition credit facilities, leases and other contracts, environmental remediation, taxes, and non-asbestos-related personal injury. As of December 31, 2012, of the approximately 3,300 of these claims filed, approximately 170 claims remain pending and are to be addressed through the claim objection process and the dispute resolution procedures approved by the Bankruptcy Court. As of December 31, 2012, of the approximately 4,335 non-ZAI PD Claims filed, approximately 20 claims remain pending and are to be addressed through the property damage case management order approved by the Bankruptcy Court and/or the Joint Plan or another plan of reorganization.

Additionally, by order dated June 17, 2008, the Bankruptcy Court established October 31, 2008, as the claims bar date for ZAI PD Claims related to property located in the U.S. Approximately 17,960 U.S. ZAI PD Claims were filed prior to the October 31, 2008, claims bar date and, as of December 31, 2012, an additional 1,310 U.S. ZAI PD Claims were filed. Under the Canadian ZAI Settlement, all Canadian ZAI PD Claimants who filed a proof of claim by December 31, 2009, would be entitled to seek compensation from the Canadian ZAI PD Claims Fund. Approximately 14,100 Canadian ZAI PD Claims were filed by December 31, 2009. The Joint Plan provides for the channeling of U.S. ZAI PD Claims and Canadian ZAI PD Claims to the PD Trust created under the Joint Plan, and the subsequent transfer of Canadian ZAI PD Claims to a separate Canadian fund. No claims bar date has been set for personal injury claims related to ZAI. The Joint Plan provides that ZAI PI Claims would be channeled to the PI Trust created under the Joint Plan.

Grace is continuing to analyze and review unresolved claims in relation to the Joint Plan. Grace believes that its recorded liabilities for claims subject to the March 31, 2003, claims bar date represent a reasonable estimate of the ultimate allowable amount for claims that are not in dispute or have been submitted with sufficient information to both evaluate the merit and estimate the value of the claim. The PD Claims are considered as part of Grace's overall asbestos liability and are being accounted for as described in Note 3.

**Debt Capital** All of the Debtors' pre-petition debt is in default due to the Filing. The accompanying Consolidated Balance Sheets reflect the classification of the Debtors' pre-petition debt within "liabilities subject to compromise." Grace maintains a \$100 million cash-collateralized letter of credit facility with a commercial bank to support existing and new financial assurances.

**Accounting Impact** The accompanying Consolidated Financial Statements have been prepared in accordance with ASC 852, "Reorganizations". ASC 852 requires that financial statements of debtors-in-possession be prepared on a going concern basis, which contemplates continuity of operations and realization of assets and liquidation of liabilities in the ordinary course of business. However, as a result of the Filing, the realization of certain of the Debtors' assets and the liquidation of certain of the Debtors' liabilities are subject to significant uncertainty. While operating as

debtors-in-possession, the Debtors may sell or otherwise dispose of assets and liquidate or settle liabilities for amounts other than those reflected in the Consolidated Financial Statements. Further, the

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

ultimate plan of reorganization could materially change the amounts and classifications reported in the Consolidated Financial Statements.

Pursuant to ASC 852, Grace's pre-petition and future liabilities that are subject to compromise are required to be reported separately on the balance sheet at an estimate of the amount that will ultimately be allowed by the Bankruptcy Court. As of December 31, 2012, such pre-petition liabilities include fixed obligations (such as debt and contractual commitments), as well as estimates of costs related to contingent liabilities (such as asbestos-related litigation, environmental remediation and other claims). Obligations of Grace subsidiaries not covered by the Filing continue to be classified on the Consolidated Balance Sheets based upon maturity dates or the expected dates of payment. ASC 852 also requires separate reporting of certain expenses, realized gains and losses, and provisions for losses related to the Filing as reorganization items. Grace presents reorganization items as "Chapter 11 expenses, net of interest income," a separate caption in its Consolidated Statements of Operations.

Grace has not recorded the benefit of any assets that may be available to fund asbestos-related and other liabilities under the Fresenius Settlement and the Sealed Air Settlement, as under the Joint Plan, these assets will be transferred to the PI Trust and the PD Trust. The estimated fair value available under the Fresenius Settlement and the Sealed Air Settlement as measured at December 31, 2012, was \$1,307 million composed of \$115 million in cash from Fresenius and \$1,192 million in cash and stock from Cryovac under the Joint Plan. Payments under the Sealed Air Settlement will be made directly to the PI Trust and the PD Trust by Cryovac.

Grace's Consolidated Balance Sheets separately identify the liabilities that are "subject to compromise" as a result of the Chapter 11 proceedings. In Grace's case, "liabilities subject to compromise" represent both pre-petition and future liabilities as determined under U.S. GAAP. Changes to pre-petition liabilities subsequent to the Filing Date reflect: (1) cash payments under approved court orders; (2) the terms of the Joint Plan, as discussed above and in Note 3, including the accrual of interest on pre-petition debt and other fixed obligations; (3) accruals for employee-related programs; and (4) changes in estimates related to other pre-petition contingent liabilities. The accounting for the asbestos-related liability component of "liabilities subject to compromise" is described in Note 3.

Components of liabilities subject to compromise are as follows:

(In millions)	December 31, 2012	December 31, 2011	Filing Date (Unaudited)
Asbestos-related contingencies	\$2,065.0	\$1,700.0	\$1,002.8
Pre-petition bank debt plus accrued interest	937.2	907.3	511.5
Environmental contingencies	140.5	149.9	164.8
Unfunded special pension arrangements	134.3	129.0	70.8
Income tax contingencies	87.6	69.3	242.1
Postretirement benefits other than pension	63.9	64.6	185.4
Drawn letters of credit plus accrued interest	36.1	34.5	—
Accounts payable	31.3	31.3	43.0
Retained obligations of divested businesses	29.0	28.4	43.5
Other accrued liabilities	102.3	89.8	102.1
Reclassification to current liabilities(1)	(10.1	) (8.4	) —
Total Liabilities Subject to Compromise	\$3,617.1	\$3,195.7	\$2,366.0

As of December 31, 2012 and 2011, approximately \$10.1 million and \$8.4 million, respectively, of certain pension (1) and postretirement benefit obligations subject to compromise have been presented in "other current liabilities" in the Consolidated Balance Sheets in accordance with ASC 715 "Compensation—Retirement Benefits".

Note that the unfunded special pension arrangements reflected above exclude non-U.S. pension plans and qualified U.S. pension plans that became underfunded subsequent to the Filing. Contributions to qualified U.S. pension plans are subject to Bankruptcy Court approval.



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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

## Change in Liabilities Subject to Compromise

The following table is a reconciliation of the changes in pre-filing date liability balances for the period from the Filing Date through December 31, 2012.

(In millions) (Unaudited)	Cumulative Since Filing
Balance, Filing Date April 2, 2001	\$2,366.0
Cash disbursements and/or reclassifications under Bankruptcy Court orders:	
Payment of environmental settlement liability	(252.0 )
Freight and distribution order	(5.7 )
Trade accounts payable order	(9.1 )
Resolution of contingencies subject to Chapter 11	(130.0 )
Other court orders for payments of certain operating expenses	(378.2 )
Expense (income) items:	
Interest on pre-petition liabilities	549.8
Employee-related accruals	127.5
Provision for asbestos-related contingencies	1,109.8
Provision for environmental contingencies	355.2
Provision for income tax contingencies	(80.4 )
Balance sheet reclassifications	(35.8 )
Balance, end of period	\$3,617.1

Additional liabilities subject to compromise may arise due to the rejection of executory contracts or unexpired leases, or as a result of the Bankruptcy Court's allowance of contingent or disputed claims.

For the holders of pre-petition bank credit facilities, beginning January 1, 2006, Grace agreed to pay interest on pre-petition bank debt at the prime rate, adjusted for periodic changes, and compounded quarterly. The effective rate for the twelve months ended December 31, 2012 and 2011, was 3.25%. From the Filing Date through December 31, 2005, Grace accrued interest on pre-petition bank debt at a negotiated fixed annual rate of 6.09%, compounded quarterly. The pre-petition bank debt holders have argued that they are entitled to post-petition interest at the default rate specified under the terms of the underlying credit agreements, which they asserted was approximately an additional \$185 million as of December 31, 2012, and growing (Grace believes that if default interest was ultimately determined to be payable, the additional amount of accrued interest would be substantially less than that asserted by the pre-petition bank debt holders). The Bankruptcy Court and the District Court have overruled this assertion and the pre-petition bank debt holders have appealed these rulings to the Third Circuit.

For the holders of claims who, but for the Filing, would be entitled under a contract or otherwise to accrue or be paid interest on such claim in a non-default (or non-overdue payment) situation under applicable non-bankruptcy law, Grace accrues interest at the rate provided in the contract between the Grace entity and the claimant or such rate as may otherwise apply under applicable non-bankruptcy law.

For all other holders of allowed general unsecured claims, Grace accrues interest at a rate of 4.19% per annum, compounded annually, unless otherwise negotiated during the claim settlement process.

## Chapter 11 Expenses

(In millions)	Year Ended December 31,		
	2012	2011	2010
Legal and financial advisory fees	\$17.4	\$20.6	\$18.2
Interest (income) expense	(0.8 )	(0.6 )	(0.5 )
Chapter 11 expenses, net of interest income	\$16.6	\$20.0	\$17.7



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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

Pursuant to ASC 852, interest income earned on the Debtors' cash balances must be offset against Chapter 11 expenses.

## Condensed Financial Information of the Debtors

## W. R. Grace &amp; Co.—Chapter 11 Filing Entities

## Debtor-in-Possession Statements of Operations

(In millions) (Unaudited)	Year Ended December 31,			
	2012	2011	2010	
Net sales, including intercompany	\$1,512.6	\$1,479.4	\$1,211.4	
Cost of goods sold, including intercompany, exclusive of depreciation and amortization shown separately below	899.1	889.9	741.4	
Selling, general and administrative expenses	245.2	267.8	244.8	
Defined benefit pension expense	50.6	43.6	57.3	
Depreciation and amortization	67.3	68.3	66.9	
Chapter 11 expenses, net of interest income	16.6	20.0	17.7	
Libby medical program settlement	19.6	—	—	
Provision for asbestos-related contingencies	365.0	—	—	
Research and development expenses	35.9	39.7	34.8	
Interest expense and related financing costs	41.5	40.0	39.7	
Restructuring expenses	2.5	0.6	3.5	
Provision for environmental remediation	2.4	17.7	3.5	
Other income, net	(98.1	) (93.6	) (90.7	)
	1,647.6	1,294.0	1,118.9	
Income (loss) before income taxes and equity in net income of non-filing entities	(135.0	) 185.4	92.5	
Benefit from (provision for) income taxes	39.3	(70.8	) (38.0	)
Income (loss) before equity in net income of non-filing entities	(95.7	) 114.6	54.5	
Equity in net income of non-filing entities	189.8	154.8	152.6	
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	\$207.1	

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

## W. R. Grace &amp; Co.—Chapter 11 Filing Entities

## Debtor-in-Possession Statements of Cash Flows

(In millions) (Unaudited)	Year Ended December 31,		
	2012	2011	2010
Operating Activities			
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	\$207.1
Reconciliation to net cash provided by operating activities:			
Depreciation and amortization	67.3	68.3	66.9
Provision for asbestos-related contingencies	365.0	—	—
Equity in net income of non-filing entities	(189.8	) (154.8	) (152.6
(Benefit from) provision for income taxes	(39.3	) 70.8	38.0
Income taxes (paid), net of refunds	(33.9	) (13.2	) 12.9
Tax benefits from stock-based compensation	(36.8	) —	—
Defined benefit pension expense	50.6	43.6	57.3
Payments under defined benefit pension arrangements	(114.9	) (251.4	) (51.4
Repatriation of cash from foreign entities	21.6	30.3	116.8
Changes in assets and liabilities, excluding the effect of foreign currency translation:			
Trade accounts receivable	(7.1	) (26.2	) (24.7
Inventories	53.7	(56.2	) (17.3
Accounts payable	(15.1	) 37.5	14.6
All other items, net	108.6	18.9	(52.9
Net cash provided by operating activities	324.0	37.0	214.7
Investing Activities			
Capital expenditures	(82.6	) (77.7	) (55.1
Transfer to restricted cash and cash equivalents	(35.4	) (8.4	) (74.5
Other	—	10.0	(25.3
Net cash used for investing activities	(118.0	) (76.1	) (154.9
Net cash provided by financing activities	69.6	40.5	41.9
Net increase in cash and cash equivalents	275.6	1.4	101.7
Cash and cash equivalents, beginning of period	788.6	787.2	685.5
Cash and cash equivalents, end of period	\$1,064.2	\$788.6	\$787.2

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## Notes to Consolidated Financial Statements (Continued)

## 2. Chapter 11 Information (Continued)

## W. R. Grace &amp; Co.—Chapter 11 Filing Entities

## Debtor-in-Possession Balance Sheets

(In millions) (Unaudited)	December 31,	
	2012	2011
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$1,064.2	\$788.6
Restricted cash and cash equivalents	118.3	82.9
Trade accounts receivable, net	132.6	125.5
Accounts receivable—unconsolidated affiliate	14.1	10.2
Receivables from non-filing entities, net	160.5	143.1
Inventories	106.3	160.0
Other current assets	58.5	67.3
Total Current Assets	1,654.5	1,377.6
Properties and equipment, net	433.5	418.8
Deferred income taxes	935.5	752.7
Asbestos-related insurance	500.0	500.0
Loans receivable from non-filing entities, net	282.1	362.3
Investment in non-filing entities	449.5	333.6
Investment in unconsolidated affiliate	85.5	70.8
Other assets	47.2	63.7
Total Assets	\$4,387.8	\$3,879.5
<b>LIABILITIES AND EQUITY</b>		
Liabilities Not Subject to Compromise		
Current liabilities (including \$6.0 due to unconsolidated affiliate) (2011—\$3.5)	\$244.7	\$250.7
Underfunded defined benefit pension plans	161.0	215.5
Other liabilities (including \$22.4 due to unconsolidated affiliate) (2011—\$18.3)	56.5	58.1
Total Liabilities Not Subject to Compromise	462.2	524.3
Liabilities Subject to Compromise	3,617.1	3,195.7
Total Liabilities	4,079.3	3,720.0
Total W. R. Grace & Co. Shareholders' Equity	308.4	159.4
Noncontrolling interests in Chapter 11 filing entities	0.1	0.1
Total Equity	308.5	159.5
Total Liabilities and Equity	\$4,387.8	\$3,879.5

In addition to Grace's financial reporting obligations as prescribed by the SEC, the Debtors are also required, under the rules and regulations of the Bankruptcy Code, to periodically file certain statements and schedules with the Bankruptcy Court. This information is available to the public through the Bankruptcy Court. This information is prepared in a format that may not be comparable to information in Grace's quarterly and annual financial statements as filed with the SEC. These statements and schedules are not audited and do not purport to represent the financial position or results of operations of Grace on a consolidated basis.

## 3. Asbestos-Related Litigation

Grace is a defendant in property damage and personal injury lawsuits relating to previously sold asbestos-containing products. As of the Filing Date, Grace was a defendant in 65,656 asbestos-related lawsuits, 17 involving claims for property damage (one of which has since been dismissed), and the remainder involving 129,191 claims for personal injury. Due to the Filing, holders of asbestos-related claims are stayed from continuing to prosecute





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## Notes to Consolidated Financial Statements (Continued)

## 3. Asbestos-Related Litigation (Continued)

pending litigation and from commencing new lawsuits against the Debtors. Grace's obligations with respect to present and future asbestos claims will be determined through the Chapter 11 process.

**Property Damage Litigation** The plaintiffs in asbestos property damage lawsuits generally seek to have the defendants pay for the cost of removing, containing or repairing the asbestos-containing materials in the affected buildings. Various factors can affect the merit and value of PD Claims, including legal defenses, product identification, the amount and type of product involved, the age, type, size and use of the building, the legal status of the claimant, the jurisdictional history of prior cases, the court in which the case is pending, and the difficulty of asbestos abatement, if necessary.

Out of 380 asbestos property damage cases (which involved thousands of buildings) filed prior to the Filing Date, 16 remain unresolved. Eight cases relate to ZAI and eight relate to a number of former asbestos-containing products (two of which also are alleged to involve ZAI).

Approximately 4,300 additional PD claims were filed prior to the March 31, 2003, claims bar date established by the Bankruptcy Court. (The March 31, 2003, claims bar date did not apply to ZAI claims.) Grace objected to virtually all PD claims on a number of legal and factual bases. As of December 31, 2012, approximately 430 PD Claims subject to the March 31, 2003, claims bar date remain outstanding. The Bankruptcy Court has approved settlement agreements covering approximately 410 of such claims for an aggregate allowed amount of \$150.8 million.

Eight of the ZAI cases were filed as purported class action lawsuits in 2000 and 2001. In addition, 10 lawsuits were filed as purported class actions in 2004 and 2005 with respect to persons and homes in Canada. These cases seek damages and equitable relief, including the removal, replacement and/or disposal of all such insulation. The plaintiffs assert that this product is in millions of homes and that the cost of removal could be several thousand dollars per home. As a result of the Filing, all of these cases have been stayed.

Based on Grace's investigation of the claims described in these lawsuits, and testing and analysis of this product by Grace and others, Grace believes that ZAI was and continues to be safe for its intended purpose and poses little or no threat to human health. The plaintiffs in the ZAI lawsuits dispute Grace's position on the safety of ZAI. In December 2006 the Bankruptcy Court issued an opinion and order holding that, although ZAI is contaminated with asbestos and can release asbestos fibers when disturbed, there is no unreasonable risk of harm from ZAI. In the event the Joint Plan does not become effective, the ZAI claimants have reserved their right to appeal such opinion and order if and when it becomes a final order.

At the Debtors' request, in July 2008, the Bankruptcy Court established a claims bar date for U.S. ZAI PD Claims and approved a related notice program that required any person with a U.S. ZAI PD Claim to submit an individual proof of claim no later than October 31, 2008. Approximately 17,960 U.S. ZAI PD Claims were filed prior to the October 31, 2008, claims bar date and, as of December 31, 2012, an additional 1,310 U.S. ZAI PD Claims were filed. As described above, under the Canadian ZAI Settlement, all Canadian ZAI PD Claims filed before December 31, 2009, would be eligible to seek compensation from the Canadian ZAI property damage claims fund. Approximately 13,100 Canadian ZAI PD Claims were filed by December 31, 2009.

As described in Note 2, in November 2008, the Debtors, the Putative Class Counsel to the U.S. ZAI property damage claimants, the PD FCR, and the Equity Committee reached an agreement designed to resolve all present and future U.S. ZAI PD Claims. The terms of the U.S. and Canadian ZAI agreements in principle have been incorporated into the terms of the Joint Plan and related documents.

Upon the occurrence of the effective date under the Joint Plan, all pending and future PD Claims would be channeled for resolution to the PD Trust. PD Claims other than U.S. and Canadian ZAI PD Claims would be litigated in the Bankruptcy Court or a U.S. District Court, including all claims and defenses that would have been available to the parties prior to the filing of the Chapter 11 Cases as well as any defenses based on the March 31, 2003, bar date. Any claims determined to be allowed claims would be paid in cash by the PD Trust. Grace would be obligated to fund the PD Trust every six months in an amount sufficient to enable the PD Trust to pay all such allowed claims and Trust-related expenses.

All allowed U.S. ZAI PD Claims would be paid by the PD Trust from the ZAI PD account and all allowed Canadian ZAI PD Claims would be paid by the Canadian ZAI property damage claims fund. Grace would have no

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## Notes to Consolidated Financial Statements (Continued)

## 3. Asbestos-Related Litigation (Continued)

liability or obligation for asbestos-related ZAI PD claims, except for its obligations to fund the PD Trust's ZAI PD account as described in Note 2.

**Personal Injury Litigation** Asbestos personal injury claimants allege adverse health effects from exposure to asbestos-containing products formerly manufactured by Grace. Historically, Grace's cost to resolve such claims has been influenced by numerous variables, including the nature of the disease alleged, product identification, proof of exposure to a Grace product, negotiation factors, the solvency of other former producers of asbestos-containing products, cross-claims by co-defendants, the rate at which new claims are filed, the jurisdiction in which the claims are filed, and the defense and disposition costs associated with these claims.

As of the Filing Date, 129,191 PI Claims were pending against Grace. Grace believes that a substantial number of additional PI Claims would have been received between the Filing Date and December 31, 2012, had such PI Claims not been stayed by the Bankruptcy Court.

The Bankruptcy Court entered a case management order for estimating liability for pending and future PI Claims. A trial for estimating liability for PI Claims began in January 2008 but was suspended in April 2008 as a result of the PI Settlement.

Upon the occurrence of the effective date under the Joint Plan, all pending and future asbestos-related personal injury claims would be channeled for resolution to the PI Trust and Grace would have no liability or obligation for asbestos-related personal injury claims, except for its obligations to fund the PI Trust as described in Note 2.

**Asbestos-Related Liability** The recorded asbestos-related liability as of December 31, 2012, and December 31, 2011, was \$2,065.0 million and \$1,700.0 million respectively, and is included in "liabilities subject to compromise" in the accompanying Consolidated Balance Sheets. Grace increased its asbestos-related liability by \$365.0 million in the fourth quarter of 2012 to reflect an updated estimate of the value of the consideration payable to the PI Trust and the PD Trust (the "Trusts") under the Joint Plan, assuming emergence from bankruptcy at the end of 2013. As discussed in Note 2, Grace reached an agreement in October 2012 to cash settle the warrant to be issued to the PI Trust at emergence. As a result of this settlement, as well as an updated valuation estimate of the deferred payment obligations and other consideration payable to the Trusts, Grace concluded that the previously recorded liability of \$1,700.0 million was no longer in the reasonable range of possible valuations of the consideration payable to the Trusts.

The components of the consideration payable to the Trusts under the Joint Plan are as follows:

The warrant to acquire 10 million shares of the Company's common stock for \$17.00 per share which will be recorded at fair value on the effective date of the Joint Plan. Under the agreement to cash settle the warrant, the warrant will have a value between \$375 million and \$490 million. Based on the current trading range of Company common stock and other valuation factors, at December 31, 2012, Grace estimates the value of the warrant at emergence will be the maximum value of \$490 million.

The deferred payment obligation of \$110 million per year for five years beginning January 2, 2019, and of \$100 million per year for ten years beginning January 2, 2024, which will be recorded at fair value on the effective date of the Joint Plan. At December 31, 2012, Grace estimates the value of the deferred payment obligation at emergence will be \$547 million, which assumes a discount rate of approximately 10%. The value of the deferred payment obligation is affected by (i) interest rates; (ii) the Company's credit standing and the payment period of the deferred payments; (iii) restrictive covenants and terms of the Company's other credit facilities; (iv) assessment of the risk of a default, which if default were to occur would require Grace to issue shares of Company common stock; and (v) the subordination provisions of the deferred payment agreement.

The cash payable by Grace to fund the PI and PD Trusts as discussed in Note 2, which will be recorded at fair value on the effective date of the Joint Plan. Grace estimates the fair value to be \$528 million at December 31, 2012.

As discussed in Note 2, proceeds with respect to all of Grace's insurance policies that provide coverage for asbestos-related claims would be transferred to the PI Trust under the Joint Plan. The recorded asbestos-



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## Notes to Consolidated Financial Statements (Continued)

## 3. Asbestos-Related Litigation (Continued)

related insurance receivable and related liability of \$500.0 million at December 31, 2012, is within the reasonable range of possible valuations of these policies at emergence.

Grace periodically evaluates the recorded amount of its asbestos-related liability and may further adjust the liability prior to the effective date of the Joint Plan if it determines that the currently recorded amount no longer represents a reasonable estimate of the value of the consideration payable to the Trusts under the Joint Plan. The ultimate cost of settling the asbestos-related liability will be based on the value of the consideration transferred to the Trusts at emergence and will vary from the current estimate.

Appeals have been filed in the Third Circuit challenging the District Court order confirming the Joint Plan. If any such appeals are resolved adversely to Grace and the other Joint Plan proponents, and if the Joint Plan cannot be amended to address any deficiencies identified by the Third Circuit in a manner satisfactory to Grace and the other Joint Plan proponents, the Debtors would expect to resume the estimation trial, which was suspended in April 2008 due to the PI Settlement, to determine the amount of its asbestos-related liabilities. Through the PI Claim estimation process and the continued adjudication of PD Claims, Grace would seek to demonstrate that most claims have no value because they fail to establish any significant property damage, health impairment or occupational exposure to asbestos from Grace's operations or products. If the Bankruptcy Court agreed with Grace's position on the number of, and the amounts to be paid in respect of, allowed PI Claims and PD Claims, then Grace believes that the value of its asbestos-related liability could be lower than the recorded amount. However, this outcome would be highly uncertain and would depend on a number of Bankruptcy Court rulings favorable to Grace's position. Conversely, the PI and PD Committees and the PI FCR have asserted that Grace's asbestos-related liabilities are substantially higher than the recorded amount, and in fact are in excess of Grace's business value. If the Bankruptcy Court accepted the position of the PI and PD Committees and the PI FCR, then any plan of reorganization likely would result in the loss of all or substantially all equity value by current shareholders.

**Insurance Rights** Grace holds insurance policies that provide coverage for 1962 to 1985 with respect to asbestos-related lawsuits and claims. For the most part, coverage for years 1962 through 1972 has been exhausted, leaving coverage for years 1973 through 1985 available for pending and future asbestos claims. Since 1985, insurance coverage for asbestos-related liabilities has not been commercially available to Grace. As discussed in Note 2, pursuant to the Joint Plan, proceeds with respect to all of Grace's insurance policies that provide coverage for asbestos-related claims would be transferred to the PI Trust.

For each insurance year, Grace's coverage consists of both primary and excess coverage. With one exception, coverage disputes regarding Grace's primary insurance policies have been settled, and those settlement amounts have been paid in full.

Grace has entered into settlement agreements, which are dependent upon the effectiveness of the Joint Plan, with underwriters of a portion of Grace's insurance coverage. Under most of these agreements, the insurers have agreed, subject to certain conditions, to pay to the PI Trust (directly or through an escrow arrangement) an aggregate of \$395.2 million in respect of coverage under the affected policies. Under the remaining agreements, the insurers have agreed to reimburse the PI Trust, subject to certain conditions, which will result in a partial reimbursement of the claims actually paid by the PI Trust.

Prior to filing the Chapter 11 Cases, Grace entered into settlement agreements with various excess insurance carriers that are not dependent upon the effectiveness of the Joint Plan. The unpaid maximum aggregate amount available under these settlement agreements is approximately \$487 million. Grace had no agreements in place with insurers with respect to approximately \$483 million of excess coverage, which are at layers of coverage that have not yet been triggered. Settlement amounts are generally payable on a percentage of the claims actually paid, which is based on a number of factors including the years over which a claimant was exposed to an asbestos-containing product. Grace estimates that eligible claims would have to exceed \$4.0 billion to access the total \$970 million of coverage. In the event the Joint Plan becomes effective, some of this settled and unsettled coverage will be superseded by the settlement agreements that are dependent upon the effectiveness of the Joint Plan.

Grace has excess coverage with insolvent or non-paying insurance carriers. Non-paying carriers are those that, although technically solvent, are not currently meeting their obligations to pay claims. Grace has filed and continues to file claims in the insolvency proceedings of these carriers, and Grace periodically receives distributions from some of these insolvent carriers.

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## Notes to Consolidated Financial Statements (Continued)

## 3. Asbestos-Related Litigation (Continued)

Grace estimated that under the Prior Plan, assuming the resolution value of asbestos-related claims was equal to the previously recorded liability of \$1,700.0 million (which would fund claim payments in excess of \$2.0 billion), Grace should be entitled to \$500.0 million of insurance recovery. This amount was determined by estimating the aggregate and per year payout for claims over time and applying the expected insurance recovery factor to such claims.

However, the ultimate amount of insurance recovered on such claims will depend on a number of factors that will only be determined at the time claims are paid including: the nature of the claim, the relevant exposure years, the timing of payment, the solvency of insurers and the legal status of policy rights. Accordingly, Grace's estimate of insurance recovery under the Prior Plan may differ materially from actual amounts that ultimately may be received by the PI Trust under the Joint Plan; however, Grace estimates that the recorded amount of \$500.0 million is within the reasonable range of possible valuations of these policies at emergence.

## 4. Inventories

Inventories are stated at the lower of cost or market, and cost is determined using FIFO. Inventories consisted of the following at December 31, 2012 and 2011:

(In millions)	December 31,	
	2012	2011
Raw materials	\$66.5	\$63.1
In process	46.1	48.7
Finished products	133.8	185.9
Other	32.2	31.4
	\$278.6	\$329.1

## 5. Properties and Equipment

(In millions)	December 31,	
	2012	2011
Land	\$19.9	\$18.1
Buildings	500.3	474.5
Information technology and equipment	146.7	156.3
Machinery, equipment and other	1,786.8	1,691.0
Projects under construction	101.9	106.3
Properties and equipment, gross	2,555.6	2,446.2
Accumulated depreciation and amortization	(1,785.1 )	(1,722.7 )
Properties and equipment, net	\$770.5	\$723.5

Capitalized interest costs amounted to \$0.1 million, \$0.1 million, and \$0.3 million in 2012, 2011, and 2010, respectively. Depreciation and lease amortization expense relating to properties and equipment amounted to \$108.2 million, \$110.0 million, and \$107.1 million in 2012, 2011, and 2010, respectively. Grace's rental expense for operating leases amounted to \$26.1 million, \$20.5 million, and \$20.6 million in 2012, 2011, and 2010, respectively.

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## Notes to Consolidated Financial Statements (Continued)

## 5. Properties and Equipment (Continued)

At December 31, 2012, minimum future non-cancelable payments for operating leases are:

	(In millions)
2013	\$22.1
2014	15.2
2015	11.1
2016	6.6
2017	4.2
Thereafter	13.2
	\$72.4

The above minimum non-cancelable lease payments are net of anticipated sublease income of \$0.6 million in 2013, \$0.5 million in 2014, \$0.5 million in 2015, \$0.2 million in 2016, \$0.1 million in 2017 and \$0.1 million thereafter.

## 6. Goodwill and Other Intangible Assets

The carrying amount of goodwill attributable to each operating segment and the changes in those balances during the year ended December 31, 2012, are as follows:

(In millions)	Grace Catalysts Technologies	Grace Materials Technologies	Grace Construction Products	Total Grace
Balance as of December 31, 2011	\$14.3	\$39.9	\$94.0	\$148.2
Goodwill acquired during the year	25.2	—	21.4	46.6
Foreign currency translation/other adjustments	—	0.6	1.3	1.9
Balance as of December 31, 2012	\$39.5	\$40.5	\$116.7	\$196.7

Grace's net book value of other intangible assets at December 31, 2012 and 2011, was \$82.7 million and \$70.6 million, respectively, detailed as follows:

(In millions)	As of December 31, 2012	
	Gross Carrying Amount	Accumulated Amortization
Customer lists	\$81.6	\$37.9
Technology	54.6	32.6
Trademarks	24.6	12.2
Other	8.8	4.2
Total	\$169.6	\$86.9

(In millions)	As of December 31, 2011	
	Gross Carrying Amount	Accumulated Amortization
Customer lists	\$66.7	\$32.8
Technology	49.1	28.6
Trademarks	24.2	10.9
Other	6.7	3.8
Total	\$146.7	\$76.1

Total indefinite-lived trademarks, included above, at December 31, 2012 and 2011, were \$4.8 million and \$4.7 million, respectively. Amortization expense related to intangible assets amounted to \$10.7 million, \$10.0 million, and \$8.5 million in 2012, 2011, and 2010, respectively.





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## Notes to Consolidated Financial Statements (Continued)

## 6. Goodwill and Other Intangible Assets (Continued)

At December 31, 2012, estimated future annual amortization expenses for intangible assets are:

	(In millions)
2013	\$12.2
2014	11.5
2015	10.4
2016	6.5
2017	5.2
Thereafter	32.1
Total estimated amortization expenses	\$77.9

## 7. Debt

## Components of Debt

(In millions)	2012	2011	
Debt payable within one year(1)	\$83.4	\$57.9	
Debt payable after one year	\$13.4	\$3.3	
Debt Subject to Compromise(2)			
Bank borrowings(3)	\$500.0	\$500.0	
Accrued interest on bank borrowings	437.2	407.3	
Drawn letters of credit(4)	26.5	26.3	
Accrued interest on drawn letters of credit	9.6	8.2	
	\$973.3	\$941.8	
Full-year weighted average interest rates on total debt	3.5	%	3.5 %

Fair value is determined based on expected future cash flows (discounted at market interest rates), quotes from financial institutions and other appropriate valuation methodologies.

Represents borrowings under various lines of credit and other borrowings, primarily by non-U.S. subsidiaries. At (1)December 31, 2012, the fair value of Grace's debt payable within one year not subject to compromise approximated the recorded value of \$83.4 million.

(2) At December 31, 2012, the carrying value of Grace's bank debt subject to compromise plus interest was \$973.3 million. The estimated fair value of the bank debt approximates the carrying value and is estimated using Level 2 inputs; however, because such debt is subject to compromise in Grace's Chapter 11 proceeding, neither carrying values nor market values may reflect ultimate liquidation value.

(3) Under bank revolving credit agreements in effect prior to the Filing, Grace could borrow up to \$500 million at interest rates based upon the prevailing prime, federal funds and/or Eurodollar rates. Of that amount, \$250 million was available under short-term facilities that expired in May 2001, and \$250 million was available under a long-term facility that expired in May 2003. As a result of the Filing, Grace is not permitted to make payments under the bank revolving credit agreements, and accordingly, the balance as of the Filing Date was reclassified to debt subject to compromise in the Consolidated Balance Sheets.

(4) Amounts drawn on letters of credit pursuant to settled but unpaid claims.

## 8. Fair Value Measurements and Risk

Certain of Grace's assets and liabilities are reported at fair value. ASC 820 defines fair value as the value that would be received at the measurement date in the principal or "most advantageous" market. Grace uses principal market data, whenever available, to value assets and liabilities that are required to be reported at fair value.

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## Notes to Consolidated Financial Statements (Continued)

## 8. Fair Value Measurements and Risk (Continued)

Grace has identified the following financial assets and liabilities that are subject to the fair value analysis required by ASC 820:

## Fair Value of Debt and Other Financial Instruments

See Note 7 for a discussion of the fair value of Grace's debt. At December 31, 2012, the recorded values of other financial instruments such as cash equivalents, short-term investments, and trade receivables and payables approximated their fair values, based on the short-term maturities and floating rate characteristics of these instruments.

## Derivatives

From time to time, Grace enters into commodity derivatives such as fixed-rate swaps with financial institutions to mitigate the risk of volatility of prices of natural gas or other commodities. Under fixed-rate swaps, Grace locks in a fixed rate with a financial institution for future purchases, purchases its commodity from a supplier at the prevailing market rate, and then settles with the bank for any difference in the rates, thereby "swapping" a variable rate for a fixed rate.

The valuation of Grace's fixed-rate natural gas swaps was determined using a market approach, based on natural gas futures trading prices quoted on the New York Mercantile Exchange. Commodity fixed-rate swaps with maturities of not more than 12 months are used and designated as cash flow hedges of forecasted purchases of natural gas. Current open contracts hedge forecasted transactions until December 2013. The effective portion of the gain or loss on the commodity contracts is recorded in "accumulated other comprehensive loss" and reclassified into income in the same period or periods that the underlying commodity purchase affects income. At December 31, 2012, the contract volume, or notional amount, of the commodity contracts was 2.8 million MMBtu (million British thermal units) with a total contract value of \$10.2 million.

The valuation of Grace's fixed-rate aluminum swaps was determined using a market approach, based on aluminum futures trading prices quoted on the London Metal Exchange. Commodity fixed-rate swaps with maturities of not more than 12 months are used and designated as cash flow hedges of forecasted purchases of aluminum. Current open contracts hedge forecasted transactions until December 2013. The effective portion of the gain or loss on the commodity contracts is recorded in "accumulated other comprehensive loss" and reclassified into income in the same period or periods that the underlying commodity purchase affects income. At December 31, 2012, the contract volume, or notional amount, of the commodity contracts was 3.0 million pounds with a total contract value of \$2.8 million.

Because Grace does business in over 40 countries, results are exposed to fluctuations in currency exchange rates. Grace seeks to minimize exposure to these fluctuations by matching sales in volatile currencies with expenditures in the same currencies, but it is not always possible to do so. From time to time Grace will use financial instruments such as currency forward contracts, options, or combinations of the two to reduce the risk of certain specific transactions. However, Grace does not have a policy of hedging all exposures, because management does not believe that such a level of hedging would be cost-effective.

From time to time, Grace enters into currency exchange rate forward and/or option contracts to mitigate the effects of exchange rate fluctuations. The valuation of Grace's currency exchange rate forward contracts is determined using both a market approach and an income approach. Inputs used to value currency exchange rate forward contracts consist of: (1) spot rates, which are quoted by various financial institutions; (2) forward points, which are primarily affected by changes in interest rates; and (3) discount rates used to present value future cash flows, which are based on the London Interbank Offered Rate (LIBOR) curve or overnight indexed swap rates.

In November 2007, Grace purchased currency forward contracts to mitigate the effect of currency risk with respect to intercompany loans between its principal U.S. subsidiary and a German subsidiary. As of December 31, 2012, the total notional amount related to the remaining outstanding currency forward contracts was €194.5 million. These derivatives are not designated as hedging instruments under ASC 815.



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## Notes to Consolidated Financial Statements (Continued)

## 8. Fair Value Measurements and Risk (Continued)

The following tables present the fair value hierarchy for financial assets and liabilities measured at fair value on a recurring basis as of December 31, 2012 and 2011:

## Fair Value Measurements at December 31, 2012 Using

Items Measured at Fair Value on a Recurring Basis (In millions)	Total	Quoted Prices		
		in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Currency derivatives	\$1.2	\$—	\$1.2	\$—
Commodity derivatives	0.2	—	0.2	—
<b>Total Assets</b>	<b>\$1.4</b>	<b>\$—</b>	<b>\$1.4</b>	<b>\$—</b>
<b>Liabilities</b>				
Currency derivatives	\$5.1	\$—	\$5.1	\$—
Commodity derivatives	0.4	—	0.4	—
<b>Total Liabilities</b>	<b>\$5.5</b>	<b>\$—</b>	<b>\$5.5</b>	<b>\$—</b>

## Fair Value Measurements at December 31, 2011 Using

Items Measured at Fair Value on a Recurring Basis (In millions)	Total	Quoted Prices		
		in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets</b>				
Currency derivatives	\$20.4	\$—	\$20.4	\$—
Commodity derivatives	—	—	—	—
<b>Total Assets</b>	<b>\$20.4</b>	<b>\$—</b>	<b>\$20.4</b>	<b>\$—</b>
<b>Liabilities</b>				
Currency derivatives	\$0.5	\$—	\$0.5	\$—
Commodity derivatives	3.8	—	3.8	—
<b>Total Liabilities</b>	<b>\$4.3</b>	<b>\$—</b>	<b>\$4.3</b>	<b>\$—</b>

The following tables present the location and fair values of derivative instruments included in the Consolidated Balance Sheets as of December 31, 2012 and 2011:

Fair Values of Derivative Instruments at December 31, 2012 (In millions)	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments under ASC 815:				
Commodity contracts	Other current assets	\$0.2	Other current liabilities	\$0.4
Currency contracts		1.2		0.2

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	Other current assets		Other current liabilities	
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	—	Other current liabilities	4.9
Currency contracts	Other assets	—	Other liabilities	—
Total derivatives		\$1.4		\$5.5

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## Notes to Consolidated Financial Statements (Continued)

## 8. Fair Value Measurements and Risk (Continued)

Fair Values of Derivative Instruments at December 31, 2011 (In millions)	Asset Derivatives		Liability Derivatives	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Derivatives designated as hedging instruments under ASC 815:				
Commodity contracts	Other current assets	\$—	Other current liabilities	\$3.8
Currency contracts	Other current assets	—	Other current liabilities	0.4
Derivatives not designated as hedging instruments under ASC 815:				
Currency contracts	Other current assets	13.1	Other current liabilities	0.1
Currency contracts	Other assets	7.3	Other liabilities	—
Total derivatives		\$20.4		\$4.3

The following tables present the location and amount of gains and losses on derivative instruments included in the Consolidated Statements of Operations or, when applicable, gains and losses initially recognized in other comprehensive income (loss) ("OCI") for years ended December 31, 2012, 2011, and 2010:

The Effect of Derivative Instruments on the Consolidated Statement of Operations for the Year Ended December 31, 2012 (In millions)	Amount of Gain or (Loss) Recognized in OCI on Derivatives (Effective Portion)	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)
Derivatives in ASC 815 cash flow hedging relationships:			
Currency contracts	\$1.4	Other income (expense)	\$1.6
Currency contracts	0.2	Cost of goods sold	(0.1 )
Commodity contracts	(2.3 )	Cost of goods sold	(5.9 )
Total derivatives	\$(0.7 )		\$(4.4 )

	Amount of Gain or (Loss) Recognized in OCI on Derivatives	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income
Derivatives not designated as hedging instruments under ASC 815:			
Currency contracts		Other income (expense)	\$(4.4 )

The Effect of Derivative Instruments on the Consolidated Statement of Operations for the Year Ended December 31, 2011 (In millions)	Amount of Gain or (Loss) Recognized in OCI on Derivatives	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income

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	(Effective Portion)	(Effective Portion)	into Income (Effective Portion)
Derivatives in ASC 815 cash flow hedging relationships:			
Currency contracts	\$(0.2	) Cost of goods sold	\$0.1
Commodity contracts	(5.7	) Cost of goods sold	(2.8 )
Total derivatives	\$(5.9	)	\$(2.7 )
		Location of Gain or (Loss)	Amount of Gain or (Loss)
		Recognized in Income on Derivatives	Recognized in Income on Derivatives
Derivatives not designated as hedging instruments under ASC 815:			
Currency contracts		Other income (expense)	\$9.0

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## Notes to Consolidated Financial Statements (Continued)

## 8. Fair Value Measurements and Risk (Continued)

The Effect of Derivative Instruments on the Consolidated Statement of Operations for the Year Ended December 31, 2010 (In millions)	Amount of Gain or (Loss) Recognized in OCI on Derivatives (Effective Portion)	Location of Gain or (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)	Amount of Gain or (Loss) Reclassified from Accumulated OCI into Income (Effective Portion)
Derivatives in ASC 815 cash flow hedging relationships:			
Currency contracts	\$—	Cost of goods sold	\$0.1
Commodity contracts	(5.5)	) Cost of goods sold	(4.2 )
Total derivatives	\$(5.5)	)	\$(4.1 )
		Location of Gain or (Loss) Recognized in Income on Derivatives	Amount of Gain or (Loss) Recognized in Income on Derivatives
Derivatives not designated as hedging instruments under ASC 815:			
Currency contracts		Other income (expense)	\$25.3

## Debt and Interest Rate Swap Agreements

Grace was not a party to any debt or interest rate swaps at December 31, 2012 and 2011.

## Credit Risk

Grace is exposed to credit risk in its trade accounts receivable. Customers in the petroleum refining and construction industries represent the greatest exposure. Grace's credit evaluation policies, relatively short collection terms and history of minimal credit losses mitigate credit risk exposures. Grace does not generally require collateral for its trade accounts receivable, but may require a bank letter of credit in certain instances, particularly when selling to customers in cash restricted countries.

Grace may also be exposed to credit risk in its derivatives contracts. Grace monitors counterparty credit risk and currently does not anticipate nonperformance by its derivatives counterparties. Grace's derivatives contracts are with internationally recognized commercial financial institutions.

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## Notes to Consolidated Financial Statements (Continued)

## 9. Income Taxes

## Provision for Income Taxes

The components of income from consolidated operations before income taxes and the related provision for income taxes for 2012, 2011, and 2010 are as follows:

## Income Taxes—Consolidated Operations

(In millions)	2012	2011	2010	
Income (loss) before income taxes:				
Domestic	\$(138.9	) \$175.7	\$91.8	
Foreign	196.7	207.8	148.1	
Total	\$57.8	\$383.5	\$239.9	
Benefit from (provision for) income taxes:				
Federal—current	\$(51.2	) \$16.7	\$36.8	
Federal—deferred	71.0	(73.1	) (29.2	)
State and local—current	(4.4	) (2.3	) (1.5	)
State and local—deferred	70.2	—	—	
Foreign—current	(43.1	) (52.5	) (37.7	)
Foreign—deferred	(5.2	) (3.5	) (0.9	)
Total	\$37.3	\$(114.7	) \$(32.5	)

The preceding allocation of income between jurisdictions does not reflect \$22.1 million, \$30.1 million, and \$118.5 million of domestic income resulting from repatriated earnings in 2012, 2011, and 2010, respectively.

The difference between the provision for income taxes at the U.S. federal income tax rate of 35% and Grace's overall income tax provision is summarized as follows:

## Income Tax Provision Analysis

(In millions)	2012	2011	2010	
Tax provision at U.S. federal income tax rate	\$(20.2	) \$(134.2	) \$(84.0	)
Change in provision resulting from:				
Release of state valuation allowance	44.0	—	—	
Effect of tax rates in foreign jurisdictions	18.0	17.6	13.8	
Benefits from domestic production activities	14.0	0.9	1.5	
Nontaxable income/non-deductible expenses	(8.1	) (7.3	) 0.9	
Provision for U.S. taxes on repatriated foreign earnings	(2.2	) (1.1	) (5.6	)
State and local income taxes, net of federal income tax benefit	0.1	(1.5	) (1.0	)
Adjustments to uncertain tax positions and other items	(8.3	) 10.9	41.9	
Benefit from (provision for) income taxes	\$37.3	\$(114.7	) \$(32.5	)

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## Notes to Consolidated Financial Statements (Continued)

## 9. Income Taxes (Continued)

## Deferred Tax Assets and Liabilities

At December 31, 2012 and 2011, the tax attributes giving rise to deferred tax assets and liabilities consisted of the following items:

## Deferred Tax Analysis

(In millions)	2012	2011
Deferred tax assets:		
Liability for asbestos-related litigation	\$717.5	\$595.0
Federal tax credit carryforwards	2.4	13.9
Foreign net operating loss carryforwards	22.7	28.9
Deferred state taxes	88.4	100.0
Liability for environmental remediation	49.2	52.7
Other postretirement benefits	22.9	23.2
Pension liabilities	136.2	129.4
Reserves and allowances	51.6	60.1
Research and development	34.0	33.9
Accrued interest on pre-petition debt	121.9	110.9
Other	20.8	16.3
Total deferred tax assets	\$1,267.6	\$1,164.3
Deferred tax liabilities:		
Asbestos-related insurance receivable	\$(175.0)	\$(175.0)
Pension assets	(14.9)	(16.5)
Properties and equipment	(35.3)	(35.7)
Other	(14.7)	(30.5)
Total deferred tax liabilities	\$(239.9)	\$(257.7)
Valuation allowance:		
Deferred state taxes	\$(40.3)	\$(100.0)
Foreign net operating loss carryforwards	(0.5)	(0.8)
Total valuation allowance	(40.8)	(100.8)
Net deferred tax assets	\$986.9	\$805.8

Grace has recorded a valuation allowance to reduce its net deferred tax assets to the amount that is more likely than not to be realized. Grace has considered forecasted earnings, recent past and future taxable income, the mix of earnings in the jurisdictions in which it operates and prudent and feasible tax planning strategies in determining the need for these valuation allowances. The valuation allowance decreased \$60.0 million from December 31, 2011, to December 31, 2012. In the 2012 fourth quarter, Grace determined that it is more likely than not that a substantial portion of its state net operating losses will be used before their expiration. Grace recorded a \$44.0 million reduction in its valuation allowance on its state deferred tax assets. The remainder of the decrease related to the utilization and expiration of state net operating losses ("NOLs") in the current year, and the reduction of NOLs resulting from prior-year adjustments made to taxable income by the Internal Revenue Service. As of December 31, 2012, Grace has recorded net deferred tax assets before valuation allowances of approximately \$1,027.7 million and a remaining valuation allowance on net deferred tax assets of \$40.8 million, of which \$40.3 million is related to U.S. state deferred tax assets and \$0.5 million to foreign deferred tax assets. The net deferred tax assets were approximately \$986.9 million.

The realization of the state NOLs is dependent on the generation of sufficient taxable income in the appropriate tax jurisdictions. Although realization is not assured, we believe it is more likely than not that the remaining deferred tax assets will be realized. If Grace were to determine that it would not be able to realize a portion of its net deferred tax assets in the future, for which there is currently no valuation allowance, an adjustment to the net deferred tax assets

would be charged to earnings in the period such determination was made.

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## Notes to Consolidated Financial Statements (Continued)

## 9. Income Taxes (Continued)

Conversely, if Grace were to make a determination that it is more likely than not that deferred tax assets, for which there is currently a valuation allowance, would be realized, the related valuation allowance would be reduced and a benefit to earnings would be recorded.

The U.S. federal tax credit carryforwards at December 31, 2012, of \$2.4 million consist of foreign tax credit carryforwards with expiration dates through 2020.

Grace has recorded net windfall tax benefits within equity of \$36.8 million associated with stock option compensation realized in 2012, all of which was previously suspended under ASC 718 "Compensation—Stock Compensation".

## U.S. Federal Net Operating Losses

Under the Joint Plan, Grace would generate substantial U.S. federal NOLs upon emergence from bankruptcy. Grace would expect to carryforward most of its NOLs. Under U.S. Federal income tax law, a corporation is generally permitted to carryforward NOLs for a 20-year period for deduction against future taxable income. Grace believes that it will generate sufficient domestic taxable income after emergence from bankruptcy in order to utilize all available future tax deductions, prior to expiration, and thus has not recorded a valuation allowance on the U.S. federal deferred tax assets. Grace has generally not paid U.S. Federal income taxes in cash in recent years since available tax deductions and credits have fully offset U.S. taxable income. In 2012, Grace maintained a level of federal taxable income to secure approximately \$7 million in tax incentives. As part of this planning, Grace paid federal cash taxes of \$29.5 million.

Grace's ability to use future tax deductions could be significantly limited if it were to undergo an ownership change. In order to preserve these future tax deductions, the Bankruptcy Court has approved trading restrictions on Grace common stock until the effective date of a plan of reorganization. These restrictions prohibit (without the consent of Grace) a person from acquiring more than 4.75% of the outstanding Grace common stock or, for any person already holding more than 4.75%, from increasing such person's holdings. The Joint Plan provides that under certain circumstances, Grace's Board of Directors would have the authority to impose restrictions on the transfer of Grace common stock with respect to certain 5% shareholders in order to preserve these future tax deductions. However, Grace can provide no assurance that these limitations would prevent an ownership change or that its ability to use future tax deductions would not be significantly limited as a result of any change in control. See Note 2 under the caption "Joint Plan of Reorganization—Effect on Company Common Stock" for a discussion of these trading restrictions.

## Unrepatriated Foreign Earnings

Grace has not provided for U.S. federal, state and foreign deferred income taxes on \$1,000.1 million of undistributed earnings of foreign subsidiaries. Grace expects that these earnings will be permanently reinvested by such subsidiaries except to support its Chapter 11 funding requirements and in certain instances where repatriation attributable to current earnings results in minimal or no U.S. tax consequences. The unrecorded deferred tax liability associated with these earnings is \$103.5 million. Since 2001, Grace has repatriated cash and promissory notes from foreign subsidiaries to support its Chapter 11 funding requirements. Grace repatriated earnings of \$22.1 million, \$30.1 million, and \$118.5 million from its non-U.S. subsidiaries in 2012, 2011, and 2010, respectively, incurring an insignificant amount of U.S. income tax expense.

## Uncertain Tax Positions

The amount of unrecognized tax benefits at December 31, 2012, was \$88.6 million (\$83.1 million excluding interest and penalties). The amount of unrecognized tax benefits at December 31, 2011, was \$69.3 million (\$62.4 million excluding interest and penalties). The amount of unrecognized tax benefits at December 31, 2010, was \$93.8 million (\$79.2 million excluding interest and penalties). A reconciliation of the unrecognized tax benefits, excluding interest and penalties, for the three years ended December 31, 2012, follows:

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## Notes to Consolidated Financial Statements (Continued)

## 9. Income Taxes (Continued)

## Rollforward of Uncertain Tax Positions

(In millions)	Unrecognized Tax Benefits
Balance as of January 1, 2010	\$98.4
Additions for current year tax positions	0.7
Additions for prior year tax positions	5.1
Reductions for prior year tax positions(1)(2)	(18.0 )
Settlements(2)	(6.3 )
Reductions for expirations of statute of limitations	(0.7 )
Balance as of December 31, 2010	79.2
Additions for current year tax positions	0.6
Additions for prior year tax positions	0.5
Reductions for prior year tax positions and reclassifications(3)(4)	(17.8 )
Reductions for expirations of statute of limitations	(0.1 )
Balance as of December 31, 2011	62.4
Additions for current year tax positions	3.4
Additions for prior year tax positions	22.0
Reductions for prior year tax positions and reclassifications	(0.8 )
Reductions for expirations of statute of limitations	(2.9 )
Settlements(5)	(1.0 )
Balance as of December 31, 2012	\$83.1

On February 18, 2010, the Joint Committee on Taxation of the U.S. Congress (JCT) approved the settlement relating to the carryback of remaining NOLs from 1998 to the tax years 1990 through 1996, which resulted in a refund. Grace recorded a tax benefit in the amount of \$16.9 million in March 2010. The recorded tax benefit included Grace's estimate of interest payable to Grace. On April 28, 2010, Grace received a preliminary tax and (1) interest calculation from the Internal Revenue Service (IRS) that included approximately \$4.7 million less interest than Grace included in the recorded tax benefit because it did not include the benefit of interest netting. In 2010, Grace filed a claim for refund in order to take advantage of interest netting. In July 2011, Grace received interest refunds in the amount of \$7.5 million from the IRS and recorded the benefit of the additional IRS interest of \$2.8 million (\$1.8 million net of tax).

On December 3, 2010, Grace and the Commissioner of the Department of Revenue for the Commonwealth of Massachusetts entered into a settlement agreement resolving all claims for pre-petition taxes and interest for the taxable years 1990 through the petition date. As an inducement to settlement, the Commonwealth waived the right to post-petition interest in exchange for immediate payment and settlement. Based upon the Commonwealth of (2) Massachusetts' agreement to settle, Grace filed a motion with the Bankruptcy Court on December 6, 2010, to release funds for settlement. On January 6, 2011, the U.S. Bankruptcy Court approved the settlement and on January 24, 2011, Grace made payment of \$15.0 million to the Commonwealth of Massachusetts. The total amount of state taxes and accrued interest settled on these claims was \$9.7 million (\$6.3 million net of the federal income tax benefit) and \$5.4 million (\$3.5 million net of the federal income tax benefit), respectively. As a result of the settlement, Grace recorded an income tax benefit of \$10.0 million in 2010.

(3) On November 3, 2011, Grace received notice from the Canadian Revenue Agency that they had completed a review of Grace's Canadian transfer pricing for the years 2002, 2003, and 2004. As a result, Grace reversed \$10.6 million of uncertain tax positions because they were effectively settled pursuant to ASC 740-10-25. A tax matter is effectively settled through examination when the taxing authority has completed an examination; the entity does not intend to appeal or litigate any aspect of a particular tax position for completed examination; and based on a tax

authority's widely understood policy, the entity considers it remote that the taxing authority would subsequently examine or reexamine any of the positions once the examination process is completed.

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## Notes to Consolidated Financial Statements (Continued)

## 9. Income Taxes (Continued)

(4) In 2011, \$6.7 million of uncertain tax positions representing pre-petition federal and state settlements were reclassified to income taxes payable.

(5) In 2012, \$1.0 million of uncertain tax positions representing withholding taxes due were paid as a result of the completion of Grace's Canadian audit for the years 2002, 2003, and 2004.

Included in the balance of unrecognized tax benefits as of December 31, 2012, 2011, and 2010 are \$82.1 million (net of \$1.0 million that would be indemnified by a third party), \$62.4 million, and \$79.2 million, respectively, of tax benefits that, if recognized, would affect the effective tax rate. Grace accrues potential interest and any associated penalties related to uncertain tax positions in "benefit from (provision for) income taxes" in the Consolidated Statements of Operations. The balances of unrecognized tax benefits in the preceding table do not include accrued interest and penalties. The total amount of interest and penalties accrued on uncertain tax positions as of December 31, 2012, 2011, and 2010 was \$5.5 million, \$6.9 million and \$14.6 million, respectively, net of applicable federal income tax benefits.

Grace files U.S. federal income tax returns as well as income tax returns in various state and foreign jurisdictions. In many cases, Grace's uncertain tax positions are related to income tax returns for tax years that remain subject to examination by the relevant taxing authorities. The following table summarizes these open tax years by major jurisdiction:

Tax Jurisdiction(1)	Examination in Progress	Examination Not Yet Initiated
United States—Federal	2007-2009	2010-2011
United States—State	2007-2011	2009-2011
Germany	2006-2008	2009-2011
United Kingdom	None	2008-2011
Italy	None	2008-2011
France	None	2009-2011
Canada	None	2006-2011

(1) Includes federal, state, provincial or local jurisdictions, as applicable.

Grace notes that there are attributes generated in prior years that are otherwise closed by statute and were carried forward into years that are open to examination. Those attributes may still be subject to adjustment to the extent utilized in open years.

As a large taxpayer, Grace is under continual audit by the various tax authorities on open-year tax positions. Based on the status of current examinations in various taxing jurisdictions and applicable judicial decisions applied to Grace's fact pattern, Grace believes it is reasonably possible that in the next 12 months the amount of the liability for unrecognized tax benefits could increase by as much as \$81 million, along with accelerated recognition of a deferred charge of \$4.2 million, or decrease by as much as \$78 million.



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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans

**Pension Plans** The following table presents the funded status of Grace's fully-funded, underfunded, and unfunded pension plans:

(In millions)	December 31, 2012	December 31, 2011
Overfunded defined benefit pension plans	\$33.8	\$37.1
Underfunded defined benefit pension plans	(179.7	) (228.0
Unfunded defined benefit pension plans	(220.9	) (179.4
Total underfunded and unfunded defined benefit pension plans	(400.6	) (407.4
Unfunded defined benefit pension plans included in liabilities subject to compromise	(128.5	) (123.3
Pension liabilities included in other current liabilities	(14.0	) (13.2
Net funded status	\$(509.3	) \$(506.8

Fully-funded plans include several advance-funded plans where the fair value of the plan assets exceeds the projected benefit obligation ("PBO"). This group of plans was overfunded by \$33.8 million as of December 31, 2012, and the overfunded status is reflected as "overfunded defined benefit pension plans" in the Consolidated Balance Sheets.

Underfunded plans include a group of advance-funded plans that are underfunded on a PBO basis. Unfunded plans include several plans that are funded on a pay-as-you-go basis, and therefore, the entire PBO is unfunded. The combined balance of the underfunded and unfunded plans was \$543.1 million as of December 31, 2012.

Grace maintains defined benefit pension plans covering current and former employees of certain business units and divested business units who meet age and service requirements. Benefits are generally based on final average salary and years of service. Grace funds its U.S. qualified pension plans ("U.S. qualified pension plans") in accordance with U.S. federal laws and regulations. Non-U.S. pension plans ("non-U.S. pension plans") are funded under a variety of methods, as required under local laws and customs.

Grace also provides, through nonqualified plans, supplemental pension benefits in excess of U.S. qualified pension plan limits imposed by federal tax law. These plans cover officers and higher-level employees and serve to increase the combined pension amount to the level that they otherwise would have received under the U.S. qualified pension plans in the absence of such limits. The nonqualified plans are unfunded and Grace pays the costs of benefits as they are due to the participants.

At the December 31, 2012, measurement date for Grace's defined benefit pension plans, the PBO was approximately \$1,955 million as measured under U.S. GAAP compared with \$1,757 million as of December 31, 2011. The PBO basis reflects the present value (using a 3.75% discount rate for U.S. plans and a 4.06% weighted average discount rate for non-U.S. plans as of December 31, 2012) of vested and non-vested benefits earned from employee service to date, based upon current services and estimated future pay increases for active employees.

On a quarterly basis, Grace analyzes pension assets and pension liabilities along with the resulting funded status and updates its estimate of these measures. Funded status is adjusted for contributions, benefit payments, actual return on assets, current discount rates, and other identifiable and material actuarial changes. A full remeasurement is performed annually.

**Postretirement Benefits Other Than Pensions** Grace provides postretirement health care and life insurance benefits for retired employees of certain U.S. business units and certain divested business units. The postretirement medical plan provides various levels of benefits to employees hired before 1993 who retire from Grace after age 55 with at least 10 years of service. These plans are unfunded and Grace pays a portion of the costs of benefits under these plans as they are incurred. Grace applies ASC 715 to these plans, which requires that the future costs of postretirement health care and life insurance benefits be accrued over the employees' years of service.

Retirees and beneficiaries covered by the postretirement medical plan are required to contribute a minimum of 40% of the calculated premium for that coverage. During 2002, per capita costs under the retiree medical plans

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

exceeded caps on the amount Grace was required to contribute under a 1993 amendment to the plan. As a result, for 2003 and future years, retirees will bear 100% of any increase in premium costs.

For 2012 measurement purposes, per capita costs, before retiree contributions, were assumed to initially increase at a rate of 8.50%. The rate of increase is assumed to decrease gradually to 5% through 2020 and remain at that level thereafter. A one percentage point increase or decrease in assumed health care medical cost trend rates would not materially change Grace's postretirement benefit obligations (impact of less than \$1 million) and would have a negligible impact on the aggregate of the service and interest cost components of net periodic benefit cost.

**Defined Contribution Retirement Plan** Grace sponsors a defined contribution retirement plan for its employees in the United States. This plan is qualified under section 401(k) of the U.S. tax code. Currently, Grace contributes an amount equal to 100% of employee contributions, up to 6% of an individual employee's salary or wages. Grace's cost related to this benefit plan was \$12.6 million, \$12.3 million, and \$12.4 million for the years ended December 31, 2012, 2011, and 2010, respectively.

**Analysis of Plan Accounting and Funded Status** The following table summarizes the changes in benefit obligations and fair values of retirement plan assets during 2012 and 2011:

Change in Financial Status of Retirement Plans (In millions)	Defined Benefit Pension Plans				Total		Other Post-Retirement Plans	
	U.S.		Non-U.S.					
	2012	2011	2012	2011	2012	2011	2012	2011
Change in Projected Benefit Obligation (PBO):								
Benefit obligation at beginning of year	\$1,299.8	\$1,206.2	\$457.4	\$409.8	\$1,757.2	\$1,616.0	\$64.6	\$70.2
Service cost	21.5	18.2	8.9	8.7	30.4	26.9	0.2	0.3
Interest cost	55.9	60.3	21.4	22.7	77.3	83.0	2.5	3.2
Plan participants' contributions	—	—	0.6	0.6	0.6	0.6	—	—
Amendments	—	—	—	(0.6)	—	(0.6)	—	—
Settlements recognized	—	—	(1.3)	(1.6)	(1.3)	(1.6)	—	—
Actuarial (gain) loss	116.2	80.6	51.9	39.7	168.1	120.3	(2.1)	(7.4)
Medicare subsidy receipts	—	—	—	—	—	—	3.3	1.9
Benefits paid	(66.4)	(65.5)	(21.8)	(19.6)	(88.2)	(85.1)	(4.6)	(3.6)
Currency exchange translation adjustments	—	—	10.5	(2.3)	10.5	(2.3)	—	—
Benefit obligation at end of year	\$1,427.0	\$1,299.8	\$527.6	\$457.4	\$1,954.6	\$1,757.2	\$63.9	\$64.6
Change in Plan Assets:								
Fair value of plan assets at beginning of year	\$955.3	\$719.3	\$295.1	\$265.8	\$1,250.4	\$985.1	\$—	\$—
Actual return on plan assets	127.9	50.1	20.8	36.1	148.7	86.2	—	—
Employer contributions	114.9	251.4	11.9	13.7	126.8	265.1	1.3	1.7
Plan participants' contributions	—	—	0.6	0.6	0.6	0.6	—	—
Settlements recognized	—	—	(1.3)	(1.6)	(1.3)	(1.6)	—	—
Medicare subsidy receipts	—	—	—	—	—	—	3.3	1.9
Benefits paid	(66.4)	(65.5)	(21.8)	(19.6)	(88.2)	(85.1)	(4.6)	(3.6)
Currency exchange translation adjustments	—	—	8.3	0.1	8.3	0.1	—	—
Fair value of plan assets at end of year	\$1,131.7	\$955.3	\$313.6	\$295.1	\$1,445.3	\$1,250.4	\$—	\$—

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Funded status at end of year (PBO basis)	\$ (295.3 )	\$ (344.5 )	\$ (214.0 )	\$ (162.3 )	\$ (509.3 )	\$ (506.8 )	\$ (63.9 )	\$ (64.6 )
Amounts recognized in the Consolidated Balance Sheets consist of:								
Noncurrent assets	\$—	\$—	\$33.8	\$37.1	\$33.8	\$37.1	\$—	\$—
Current liabilities	(5.8 )	(5.7 )	(8.2 )	(7.5 )	(14.0 )	(13.2 )	(4.3 )	(2.7 )
Noncurrent liabilities	(289.5 )	(338.8 )	(239.6 )	(191.9 )	(529.1 )	(530.7 )	(59.6 )	(61.9 )
Net amount recognized	\$ (295.3 )	\$ (344.5 )	\$ (214.0 )	\$ (162.3 )	\$ (509.3 )	\$ (506.8 )	\$ (63.9 )	\$ (64.6 )
Amounts recognized in Accumulated Other Comprehensive Loss consist of:								
Accumulated actuarial loss (gain)	\$796.0	\$780.0	\$181.6	\$140.9	\$977.6	\$920.9	\$ (0.3 )	\$2.4
Prior service cost (credit)	2.2	3.1	(0.3 )	(0.3 )	1.9	2.8	—	—
Net amount recognized	\$798.2	\$783.1	\$181.3	\$140.6	\$979.5	\$923.7	\$ (0.3 )	\$2.4

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

Change in Financial Status of Retirement Plans (In millions)	Defined Benefit Pension Plans						Other Post-Retirement Plans	
	U.S.		Non-U.S.		Total		2012	2011
	2012	2011	2012	2011	2012	2011	2012	2011
Weighted Average Assumptions Used to Determine Benefit Obligations as of December 31:								
Discount rate	3.75 %	4.50 %	4.06 %	4.83 %	NM	NM	3.50 %	4.00 %
Rate of compensation increase	4.30 %	4.30 %	3.37 %	3.40 %	NM	NM	NM	NM
Weighted Average Assumptions Used to Determine Net Periodic Benefit Cost for Years Ended December 31:								
Discount rate	4.50 %	5.25 %	4.83 %	5.45 %	NM	NM	4.00 %	4.75 %
Expected return on plan assets	6.25 %	7.75 %	4.98 %	5.96 %	NM	NM	NM	NM
Rate of compensation increase	4.30 %	4.20 %	3.40 %	3.50 %	NM	NM	NM	NM

NM—Not meaningful

Components of Net Periodic Benefit Cost and Other Amounts Recognized in Other Comprehensive Loss (In millions)	2012			2011			2010		
	U.S.	Non-U.S.	Other	U.S.	Non-U.S.	Other	U.S.	Non-U.S.	Other
Net Periodic Benefit Cost									
Service cost	\$21.5	\$8.9	\$0.2	\$18.2	\$8.7	\$0.3	\$16.9	\$7.6	\$0.3
Interest cost	55.9	21.4	2.5	60.3	22.7	3.2	61.7	21.3	3.6
Expected return on plan assets	(63.3 )	(14.8 )	—	(66.1 )	(16.2 )	—	(52.0 )	(15.0 )	—
Amortization of prior service cost (credit)	0.9	(0.1 )	—	1.1	—	—	1.1	0.1	(4.1 )
Amortization of net deferred actuarial loss	35.6	4.9	0.6	30.1	4.3	0.6	29.6	5.2	0.4
Net curtailment and settlement loss	—	0.3	—	—	0.3	—	—	0.6	—
Net periodic benefit cost	\$50.6	\$20.6	\$3.3	\$43.6	\$19.8	\$4.1	\$57.3	\$19.8	\$0.2
Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Loss									
Net deferred actuarial (gain) loss	\$51.6	\$45.9	\$(2.1 )	\$96.5	\$18.3	\$(7.3 )	\$41.4	\$13.3	\$0.5
Net prior service credit	—	—	—	—	(0.4 )	—	—	—	—
Amortization of prior service cost (credit)	(0.9 )	0.1	—	(1.1 )	—	—	(1.1 )	(0.1 )	4.1
Amortization of net deferred actuarial loss	(35.6 )	(5.2 )	(0.6 )	(30.1 )	(4.6 )	(0.6 )	(29.6 )	(5.8 )	(0.4 )
Total recognized in other comprehensive (income) loss	15.1	40.8	(2.7 )	65.3	13.3	(7.9 )	10.7	7.4	4.2
Total recognized in net periodic benefit cost and other comprehensive (income) loss	\$65.7	\$61.4	\$0.6	\$108.9	\$33.1	\$(3.8 )	\$68.0	\$27.2	\$4.4

The estimated net deferred actuarial loss and prior service cost for the defined benefit pension plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year are \$45.7 million and \$0.7 million, respectively. The estimated net deferred actuarial loss for the other postretirement plans that will be amortized from accumulated other comprehensive loss into net periodic benefit cost over the next fiscal year is \$0.4 million.

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

Funded Status of U.S. Pension Plans (In millions)	Fully-Funded U.S. Qualified Pension Plans(1)			Underfunded U.S. Qualified Pension Plans(1)			Unfunded Pay-As-You-Go U.S. Nonqualified Plans(2)		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Projected benefit obligation	\$—	\$—	\$0.3	\$1,292.7	\$1,170.8	\$1,086.4	\$134.3	\$129.0	\$119.5
Fair value of plan assets	—	—	0.6	1,131.7	955.3	718.7	—	—	—
Funded status (PBO basis)	\$—	\$—	\$0.3	\$(161.0)	\$(215.5)	\$(367.7)	\$(134.3)	\$(129.0)	\$(119.5)
Benefits paid	\$—	\$—	\$—	\$(60.7)	\$(59.9)	\$(59.6)	\$(5.7)	\$(5.6)	\$(5.5)
Funded Status of Non-U.S. Pension Plans (In millions)	Fully-Funded Non-U.S. Pension Plans(1)			Underfunded Non-U.S. Pension Plans(1)			Unfunded Pay-As-You-Go Non-U.S. Pension Plans(2)		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Projected benefit obligation	\$235.4	\$224.0	\$195.8	\$63.1	\$46.5	\$51.0	\$229.1	\$186.9	\$163.0
Fair value of plan assets	269.2	261.1	231.1	44.4	34.0	34.7	—	—	—
Funded status (PBO basis)	\$33.8	\$37.1	\$35.3	\$(18.7)	\$(12.5)	\$(16.3)	\$(229.1)	\$(186.9)	\$(163.0)
Benefits paid	\$(11.8)	\$(10.2)	\$(10.9)	\$(3.6)	\$(2.2)	\$(3.1)	\$(7.7)	\$(8.8)	\$(7.1)

(1) Plans intended to be advance-funded.

(2) Plans intended to be pay-as-you-go.

The accumulated benefit obligation for all defined benefit pension plans was approximately \$1,851 million and \$1,673 million as of December 31, 2012 and 2011, respectively.

Pension Plans with Underfunded or Unfunded Accumulated Benefit Obligation (In millions)	U.S.		Non-U.S.		Total	
	2012	2011	2012	2011	2012	2011
Projected benefit obligation	\$1,427.0	\$1,299.8	\$279.8	\$201.8	\$1,706.8	\$1,501.6
Accumulated benefit obligation	1,375.1	1,254.6	241.2	182.0	1,616.3	1,436.6
Fair value of plan assets	1,131.7	955.3	35.5	7.5	1,167.2	962.8
Estimated Expected Future Benefit Payments Reflecting Future Service and Medicare Subsidy Receipts for the Fiscal Years Ending (In millions)	Pension Plans		Other Postretirement Plans		Total Payments Net of Subsidy	
	U.S.(1) Benefit Payments(3)	Non-U.S.(2) Benefit Payments	Benefit Payments	Medicare Subsidy Receipts		
2010 (actual)	\$65.1	\$21.1	\$4.9	\$(1.4)	\$89.7	
2011 (actual)	65.5	21.2	3.6	(1.9)	88.4	
2012 (actual)	66.4	23.1	4.6	(3.3)	90.8	
2013	78.5	22.7	6.2	(1.9)	105.5	
2014	81.4	21.4	6.0	(0.6)	108.2	
2015	82.7	22.0	5.8	(0.1)	110.4	
2016	83.3	23.3	5.7	(0.1)	112.2	
2017	84.4	24.6	5.5	(0.1)	114.4	

2018 - 2022	429.1	135.6	23.4	(0.3	) 587.8
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(1) Effective January 1, 2008, lump sum distributions from certain U.S. qualified pension plans were restricted based on the provisions of the Pension Protection Act of 2006 (the "Act"). During the period the plan is less than 100% funded after that date, the Act prohibits the distribution of lump sums to retiring participants while the Company remains under Chapter 11 of the U.S. Bankruptcy Code. The plan would be permitted to resume distributing lump sums to retiring participants under the Act at the date (1) the plan becomes 100% funded or (2) the Company is no longer in Chapter 11 and the plan is at least 80% funded, whichever is earlier.

(2) Non-U.S. estimated benefit payments for 2013 and future periods have been translated at the applicable December 31, 2012, exchange rates.

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

(3) Excludes \$28 million of estimated future benefit payments from nonqualified plans that are restricted by the Bankruptcy Court, which the Company expects to pay upon emergence from Chapter 11.

**Discount Rate Assumption** The assumed discount rate for pension plans reflects the market rates for high-quality corporate bonds currently available and is subject to change based on changes in overall market interest rates. For the U.S. qualified pension plans, the assumed discount rate of 3.75% as of December 31, 2012, was selected by Grace, in consultation with its independent actuaries, based on a yield curve constructed from a portfolio of high quality bonds for which the timing and amount of cash outflows approximate the estimated payouts of the plan.

As of December 31, 2012 and 2011, the United Kingdom pension plan and German pension plans combined represented approximately 84% of the benefit obligation of the non-U.S. pension plans. The assumed discount rates as of December 31, 2012, for the United Kingdom (4.25%) and Germany (3.50%) were selected by Grace, in consultation with its independent actuaries, based on yield curves constructed from a portfolio of sterling- and euro-denominated high quality bonds for which the timing and amount of cash outflows approximate the estimated payouts of the plans. The assumed discount rates for the remaining non-U.S. pension plans were determined based on the nature of the liabilities, local economic environments and available bond indices.

**Investment Guidelines for Advance-Funded Pension Plans** The investment goal for the U.S. qualified pension plans subject to advance funding is to earn a long-term rate of return consistent with the related cash flow profile of the underlying benefit obligation. The plans are pursuing a well-defined risk management strategy designed to reduce investment risks as their funded status improves.

The U.S. qualified pension plans have adopted a diversified set of portfolio management strategies to optimize the risk reward profile of the plans:

- **Liability hedging portfolio:** primarily invested in intermediate-term and long-term investment grade corporate bonds in actively managed strategies.

- **Growth portfolio:** invested in a diversified set of assets designed to deliver performance in excess of the underlying liabilities with controls regarding the level of risk.

- **U.S. equity securities:** the portfolio contains domestic equities that are passively managed to the S&P 500 and Russell 2000 benchmark and an allocation to an active portfolio benchmarked to the Russell 2000.

- **Non-U.S. equity securities:** the portfolio contains non-U.S. equities in an actively managed strategy. Currency futures and forward contracts may be held for the sole purpose of hedging existing currency risk in the portfolio.

- **Other investments:** includes (a) high yield bonds: fixed income portfolio of securities below investment grade including up to 30% of the portfolio in non-U.S. issuers; and (b) global real estate securities: portfolio of diversified REIT and other liquid real estate related securities. These portfolios combine income generation and capital appreciation opportunities from developed markets globally.

- **Liquidity portfolio:** invested in short-term assets intended to pay periodic plan benefits and expenses.

For 2012, the expected long-term rate of return on assets for the U.S. qualified pension plans was 6.25%. Average annual returns over one-, three-, five-, and ten-year periods were approximately 13%, 11%, 4%, and 8%, respectively. The expected return on plan assets for the U.S. qualified pension plans for 2012 was selected by Grace, in consultation with its independent actuaries, using an expected return model. The model determines the weighted average return for an investment portfolio based on the target asset allocation and expected future returns for each asset class, which were developed using a building block approach based on observable inflation, available interest rate information, current market characteristics, and historical results.



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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

The target allocation of investment assets at December 31, 2012, and the actual allocation at December 31, 2012 and 2011, for Grace's U.S. qualified pension plans are as follows:

U.S. Qualified Pension Plans Asset Category	Target	Percentage of Plan Assets		
	Allocation	December 31,		
	2012	2012	2011	
U.S. equity securities	16	% 16	% 16	%
Non-U.S. equity securities	8	% 7	% 7	%
Short-term debt securities	3	% 6	% 3	%
Intermediate-term debt securities	33	% 31	% 33	%
Long-term debt securities	34	% 35	% 36	%
Other investments	6	% 5	% 5	%
Total	100	% 100	% 100	%

The following tables present the fair value hierarchy for the U.S. qualified pension plan assets measured at fair value as of December 31, 2012 and 2011.

Assets Measured at Fair Value—U.S. Qualified Pension Plans (In millions)	Total	Fair Value Measurements at December 31, 2012 Using		
		Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. equity group trust funds	\$178.8	\$—	\$178.8	\$—
Non-U.S. equity group trust funds	79.2	—	79.2	—
Corporate bond group trust funds—intermediate-term	348.4	—	348.4	—
Corporate bond group trust funds—long-term	399.4	—	399.4	—
Other fixed income group trust funds	36.9	—	36.9	—
REIT group trust funds	15.0	—	15.0	—
Common/collective trust funds	58.1	—	58.1	—
Annuity and immediate participation contracts	15.9	—	15.9	—
Total Assets	\$1,131.7	\$—	\$1,131.7	\$—

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

Assets Measured at Fair Value—U.S. Qualified Pension Plans (In millions)	Total	Fair Value Measurements at December 31, 2011 Using		
		Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. equity group trust funds	\$153.4	\$—	\$153.4	\$—
Non-U.S. equity group trust funds	64.3	—	64.3	—
Corporate bond group trust funds—intermediate-term	317.0	—	317.0	—
Corporate bond group trust funds—long-term	346.5	—	346.5	—
Other fixed income group trust funds	32.4	—	32.4	—
REIT group trust funds	12.0	—	12.0	—
Common/collective trust funds	14.7	—	14.7	—
Annuity and immediate participation contracts	15.0	—	15.0	—
Total Assets	\$955.3	\$—	\$955.3	\$—

Non-U.S. pension plans accounted for approximately 22% and 24% of total global pension assets at December 31, 2012 and 2011, respectively. Each of these plans, where applicable, follows local requirements and regulations. Some of the local requirements include the establishment of a local pension committee, a formal statement of investment policy and procedures, and routine valuations by plan actuaries.

The target allocation of investment assets for non-U.S. pension plans varies depending on the investment goals of the individual plans. The plan assets of the United Kingdom pension plan represent approximately 82% of the total non-U.S. pension plan assets at December 31, 2012 and 2011. In determining the expected rate of return for the U.K. pension plan, the trustees' strategic investment policy has been considered together with long-term historical returns and investment community forecasts for each asset class. The expected return by sector has been combined with the actual asset allocation to determine the 2012 expected long-term return assumption of 4.50%.

The target allocation of investment assets at December 31, 2012, and the actual allocation at December 31, 2012 and 2011, for the U.K. pension plan are as follows:

United Kingdom Pension Plan Asset Category	Target Allocation	Percentage of Plan Assets		
	2012	2012	2011	
Equity securities	—	% —	% 8	%
Diversified growth funds	12	% 12	% —	%
U.K. gilts	41	% 41	% 37	%
U.K. corporate bonds	47	% 47	% 55	%
Total	100	% 100	% 100	%

The plan assets of the Canadian pension plan represent approximately 8% of the total non-U.S. pension plan assets at December 31, 2012 and 2011. The expected long-term rate of return on assets for the Canadian pension plan was 7% for 2012.

The target allocation of investment assets at December 31, 2012, and the actual allocation at December 31, 2012 and 2011, for the Canadian pension plan are as follows:



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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

Canadian Pension Plan Asset Category	Target	Percentage of Plan Assets		
	Allocation	December 31,		
	2012	2012	2011	
Equity securities	60	% 61	% 61	%
Bonds	40	% 39	% 39	%
Total	100	% 100	% 100	%

The plan assets of the other country plans represent approximately 10% in the aggregate (with no country representing more than 3% individually) of total non-U.S. pension plan assets at December 31, 2012 and 2011.

The following tables present the fair value hierarchy for the non-U.S. pension plan assets measured at fair value as of December 31, 2012 and 2011.

Assets Measured at Fair Value—Non-U.S. Pension Plans (In millions)		Fair Value Measurements at December 31, 2012 Using		
		Total	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)
Common/collective trust funds	\$301.3	\$—	\$301.3	\$—
Government and agency securities	2.4	—	2.4	—
Corporate bonds	1.2	—	1.2	—
Insurance contracts and other investments	8.0	—	8.0	—
Cash	0.7	0.7	—	—
Total Assets	\$313.6	\$0.7	\$312.9	\$—

Assets Measured at Fair Value—Non-U.S. Pension Plans (In millions)		Fair Value Measurements at December 31, 2011 Using		
		Total	Quoted Prices in Active Markets for Identical Assets or Liabilities (Level 1)	Significant Other Observable Inputs (Level 2)
Common/collective trust funds	\$283.5	\$—	\$283.5	\$—
Government and agency securities	1.9	—	1.9	—
Corporate bonds	1.1	—	1.1	—
Insurance contracts and other investments	8.0	—	8.0	—
Cash	0.6	0.6	—	—
Total Assets	\$295.1	\$0.6	\$294.5	\$—

**Plan Contributions and Funding** Subject to any required approval of the Bankruptcy Court, Grace intends to satisfy its funding obligations under the U.S. qualified pension plans and to comply with all of the requirements of the Employee Retirement Income Security Act of 1974 ("ERISA"). For ERISA purposes, funded status is calculated on a different basis than under U.S. GAAP. On February 21, 2012, Grace obtained Bankruptcy Court approval to fund minimum required payments under the U.S. qualified pension plans of approximately \$26 million and an accelerated

contribution of up to \$83 million in 2012. In that regard, Grace contributed approximately \$109 million in the first quarter of 2012 to the trusts that hold assets of the U.S. qualified pension plans. While Grace intends to continue to fund all minimum required payments under the U.S. qualified pension plans, there can be no assurance that the Bankruptcy Court will continue to approve these payments. Based on the U.S. qualified pension plans' status as of December 31, 2012, there are no minimum required payments under ERISA for 2013. On February 14, 2013, Grace filed a motion with the Bankruptcy Court to make an accelerated contribution of up to an additional \$50 million in 2013.

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## Notes to Consolidated Financial Statements (Continued)

## 10. Pension Plans and Other Postretirement Benefit Plans (Continued)

Contributions to non-U.S. pension plans are not subject to Bankruptcy Court approval and Grace intends to fund such plans based on applicable legal requirements and actuarial and trustee recommendations. Grace expects to contribute approximately \$13 million to its non-U.S. pension plans and approximately \$6 million (excluding any Medicare subsidy receipts) to its other postretirement plans in 2013.

Grace plans to pay benefits as they become due under virtually all pay-as-you-go plans and to maintain compliance with federal funding laws for its U.S. qualified pension plans.

## 11. Other Balance Sheet Accounts

(In millions)	December 31, 2012	December 31, 2011
Other Current Liabilities		
Accrued compensation	\$84.5	\$97.8
Income tax payable	44.8	48.3
Customer volume rebates	32.5	35.3
Pension liabilities	14.0	13.2
Accrued commissions	12.9	10.6
Accrued Chapter 11 reorganization expenses	6.6	5.5
Fair value of currency forward and commodity contracts	5.5	4.3
Restructuring liability	3.0	5.9
Deferred tax liability	0.6	0.3
Other accrued liabilities	102.9	92.8
	\$307.3	\$314.0

Accrued compensation in the table above includes salaries and wages as well as estimated current amounts due under the annual and long-term incentive programs.

## 12. Commitments and Contingent Liabilities

See Note 3 to the Consolidated Financial Statements for a discussion of Grace's asbestos-related liability.

**Environmental Remediation** Grace is subject to loss contingencies resulting from extensive and evolving federal, state, local and foreign environmental laws and regulations relating to the generation, storage, handling, discharge, disposition and stewardship of hazardous wastes and other materials. Grace accrues for anticipated costs associated with investigative and remediation efforts where an assessment has indicated that a probable liability has been incurred and the cost can be reasonably estimated. These accruals do not take into account any discounting for the time value of money.

Grace's environmental liabilities are reassessed whenever circumstances become better defined or remediation efforts and their costs can be better estimated. These liabilities are evaluated based on currently available information, including the progress of remedial investigation at each site, the current status of discussions with regulatory authorities regarding the method and extent of remediation at each site, existing technology, prior experience in contaminated site remediation and the apportionment of costs among potentially responsible parties.

**Estimated Investigation and Remediation Costs**

At December 31, 2012, Grace's estimated liability for environmental investigation and remediation costs (non-asbestos and asbestos-related) totaled \$141.5 million, compared with \$151.2 million at December 31, 2011. These amounts are based on funding and/or remediation agreements in place, including the Multi-Site Agreement described below, and Grace's estimate of costs for sites not subject to a formal remediation plan for which sufficient information is available to estimate investigation and remediation costs. These amounts do not include the cost to remediate the Libby vermiculite mine or costs related to any additional EPA claims, whether resulting from EPA's reinvestigation of vermiculite facilities or otherwise, which may be material but are not currently estimable. Due to



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## Notes to Consolidated Financial Statements (Continued)

## 12. Commitments and Contingent Liabilities (Continued)

these vermiculite-related matters, it is probable that Grace's actual investigation and remediation costs will exceed Grace's current estimates by material amounts.

Grace recorded pre-tax charges of \$3.6 million, \$17.8 million, and \$4.5 million for environmental matters in 2012, 2011, and 2010, respectively. Net cash expenditures charged against previously established reserves in 2012, 2011, and 2010 were \$13.0 million, \$11.8 million, and \$8.0 million, respectively.

**Vermiculite Related Matters**

Grace purchased a vermiculite mine in Libby, Montana, in 1963 and operated it until 1990. Vermiculite concentrate from the Libby mine was used in the manufacture of attic insulation and other products. Some of the vermiculite ore that was mined at the Libby mine contained naturally occurring asbestos. The U.S. Environmental Protection Agency (EPA) has investigated sites, including some owned by Grace, which used, stored or processed vermiculite concentrate from the Libby mine. EPA, Grace, and/or other potentially responsible parties have conducted investigations and/or remedial actions at those sites identified by EPA as requiring remedial action.

During 2010, EPA began reinvestigating up to 105 facilities where vermiculite concentrate from the Libby mine was processed. Grace is cooperating with EPA on this reinvestigation. EPA has requested that Grace perform remediation at eight of these facilities. It is probable that EPA will request additional remediation at other facilities. Grace does not have sufficient information to identify either the sites that might require additional remediation or the cost of any additional remediation. Grace will continue to monitor EPA's reinvestigation of the remaining sites and assess any information received from EPA. A liability will be recorded in the future should Grace determine that an obligation is probable and reasonably estimable.

Grace's total estimated liability for asbestos remediation studies and other estimable matters related to its former vermiculite operations in Libby, as well as the cost of remediation at vermiculite processing sites outside of Libby, at December 31, 2012 and 2011, was \$60.8 million and \$67.2 million, respectively, excluding interest where applicable. It is probable that Grace's ultimate liability will exceed current estimates by material amounts. Grace's current recorded liability will be adjusted as Grace receives new information and amounts become reasonably estimable.

**Non-Vermiculite Related Matters**

Grace's estimated liability for remediation of sites not related to its former vermiculite mining and processing activities at December 31, 2012 and 2011, was \$80.7 million and \$84.0 million, respectively. This liability relates to Grace's current and former operations, including its share of liability for off-site disposal at facilities where it has been identified as a potentially responsible party. Grace's estimated liability is based upon an evaluation of claims for which sufficient information is available. As Grace receives new information and continues its claims evaluation process, its estimated liability may change materially.

**Multi-Site Settlement**

EPA filed proofs of claim with respect to potential contamination at 38 sites, including vermiculite related claims and non-vermiculite related claims. In June 2008, Grace entered into a multi-site settlement agreement (the "Multi-Site Agreement") with the U.S. Government, on behalf of EPA and other federal agencies. Under the Multi-Site Agreement, Grace agreed to pay approximately \$44 million, which is included in the liabilities described above, to the U.S. Government and other parties in settlement of 35 of these outstanding claims and the U.S. Government has agreed not to take action against Grace under the Comprehensive Environmental Response, Compensation, and Liability Act with respect to these sites. Grace is implementing remediation at two of the remaining sites. With respect to the third remaining site, Libby, Montana, EPA's claims have been resolved except for claims related to the Grace-owned Libby vermiculite mine and the surrounding bodies of water and forest lands. Grace is cooperating with EPA to investigate these areas and determine a final remedy. The settlement amount under the Multi-Site Agreement is payable upon Grace's emergence from Chapter 11.

**Purchase Commitments** Grace uses purchase commitments to ensure supply and to minimize the volatility of major components of direct manufacturing costs including natural gas, certain metals, rare earths, asphalt, amines and other materials. Such commitments are for quantities that Grace fully expects to use in its normal operations.





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## Notes to Consolidated Financial Statements (Continued)

## 12. Commitments and Contingent Liabilities (Continued)

**Guarantees and Indemnification Obligations** Grace is a party to many contracts containing guarantees and indemnification obligations. These contracts primarily consist of:

- Product warranties with respect to certain products sold to customers in the ordinary course of business. These warranties typically provide that products will conform to specifications. Grace generally does not establish a liability for product warranty based on a percentage of sales or other formula. Grace accrues a warranty liability on a transaction-specific basis depending on the individual facts and circumstances related to each sale. Both the liability and annual expense related to product warranties are immaterial to the Consolidated Financial Statements.

• Licenses of intellectual property by Grace to third parties in which Grace has agreed to indemnify the licensee against third party infringement claims.

• Contracts providing for the sale of a former business unit or product line in which Grace has agreed to indemnify the buyer against liabilities arising prior to the closing of the transaction, including environmental liabilities.

• Guarantees of real property lease obligations of third parties, typically arising out of (a) leases entered into by former subsidiaries of Grace, or (b) the assignment or sublease of a lease by Grace to a third party.

**Financial Assurances** Financial assurances have been established for a variety of purposes, including insurance and environmental matters, asbestos settlements and appeals, trade-related commitments and other matters. At December 31, 2012, Grace had gross financial assurances issued and outstanding of \$270.0 million, composed of \$108.5 million of surety bonds issued by various insurance companies and \$161.5 million of standby letters of credit and other financial assurances issued by various banks; \$93.5 million of these financial assurances have been issued under the letter of credit facility.

**Accounting for Contingencies** Although the outcome of each of the matters discussed above cannot be predicted with certainty, Grace has assessed its risk and has made accounting estimates as required under U.S. GAAP. As a result of the Filing, claims related to certain of the items discussed above will be addressed as part of Grace's Chapter 11 proceedings. Accruals recorded for such contingencies have been included in "liabilities subject to compromise" in the accompanying Consolidated Balance Sheets. The amounts of these liabilities as ultimately determined through the Chapter 11 proceedings could be materially different from amounts recorded at December 31, 2012.

## 13. Restructuring Expenses and Related Asset Impairments

In 2012, Grace continued to incur cost from restructuring actions as a result of the realignment of the businesses and corporate structure. Grace incurred \$6.9 million (\$2.0 million in Grace Construction Products, \$0.2 million in Grace Catalysts Technologies, \$1.0 million in Grace Materials Technologies and \$3.7 million in Corporate) of restructuring expenses and related asset impairments during 2012, compared to \$6.9 million in 2011 (\$6.5 million in Grace Construction Products, \$0.4 million in Grace Catalysts Technologies, \$0.3 million in Grace Materials Technologies and \$(0.3) million in Corporate). Substantially all costs related to the 2011 programs were paid as of December 31, 2012, while substantially all costs related to the 2012 restructuring programs are expected to be paid by December 31, 2013.

(In millions)	Year Ended December 31,		
	2012	2011	2010
<b>Restructuring Expenses and Related Asset Impairments:</b>			
Severance and other employee related costs	\$5.6	\$3.8	\$10.2
Asset impairments and other restructuring costs	1.3	3.1	1.0
<b>Total restructuring expenses and related asset impairments</b>	<b>\$6.9</b>	<b>\$6.9</b>	<b>\$11.2</b>

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## Notes to Consolidated Financial Statements (Continued)

## 13. Restructuring Expenses and Related Asset Impairments (Continued)

(In millions)	December 31,		
	2012	2011	2010
Restructuring Liability:			
Beginning balance	\$5.9	\$9.6	\$13.5
Accruals for severance and other employee related costs	5.6	3.8	10.2
Payments	(8.4	) (7.2	) (13.9
Currency translation adjustments and other	(0.1	) (0.3	) (0.2
Total restructuring liability	\$3.0	\$5.9	\$9.6

## 14. Other (Income) Expense, net

Components of other (income) expense, net are as follows:

(In millions)	Year Ended December 31,		
	2012	2011	2010
Translation effects—intercompany loans	\$(5.6	) \$11.7	\$25.2
Value of currency forward contracts—intercompany loans	3.7	(9.3	) (25.4
Other currency transaction effects	2.2	3.2	4.6
Interest income	(1.0	) (1.2	) (1.0
Net loss (gain) on sales of investments and disposals of assets	0.7	(3.0	) —
Other miscellaneous (income) expense	(4.4	) 3.3	(3.4
Total other (income) expense, net	\$(4.4	) \$4.7	\$—

## 15. Other Comprehensive Loss

The following tables present the pre-tax, tax, and after-tax components of Grace's other comprehensive loss for the years ended December 31, 2012, 2011, and 2010:

Year Ended December 31, 2012 (In millions)	Pre-Tax Amount	Tax Benefit/ (Expense)	After-Tax Amount
Defined benefit pension and other postretirement plans:			
Amortization of net prior service cost included in net periodic benefit cost	\$0.8	\$(0.3	) \$0.5
Amortization of net deferred actuarial loss included in net periodic benefit cost	41.4	(14.2	) 27.2
Net deferred actuarial loss arising during period	(95.4	) 31.1	(64.3
Benefit plans, net	(53.2	) 16.6	(36.6
Currency translation adjustments	5.4	—	5.4
Gain from hedging activities	3.7	(1.3	) 2.4
Other comprehensive loss attributable to W. R. Grace & Co. shareholders	\$(44.1	) \$15.3	\$(28.8

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## Notes to Consolidated Financial Statements (Continued)

## 15. Other Comprehensive Loss (Continued)

Year Ended December 31, 2011 (In millions)	Pre-Tax Amount	Tax Benefit/ (Expense)	After-Tax Amount
Defined benefit pension and other postretirement plans:			
Amortization of net prior service cost included in net periodic benefit cost	\$1.1	\$(0.4)	) \$0.7
Amortization of net deferred actuarial loss included in net periodic benefit cost	35.3	(12.1)	) 23.2
Net prior service credit arising during period	0.4	(0.1)	) 0.3
Net deferred actuarial loss arising during period	(107.5)	) 36.6	(70.9)
Benefit plans, net	(70.7)	) 24.0	(46.7)
Currency translation adjustments	(11.6)	) —	(11.6)
Loss from hedging activities	(3.2)	) 1.1	(2.1)
Other comprehensive loss attributable to W. R. Grace & Co. shareholders	\$(85.5)	) \$25.1	\$(60.4)

Year Ended December 31, 2010 (In millions)	Pre-Tax Amount	Tax Benefit/ (Expense)	After-Tax Amount
Defined benefit pension and other postretirement plans:			
Amortization of net prior service credit included in net periodic benefit cost	\$(2.9)	) \$1.0	\$(1.9)
Amortization of net deferred actuarial loss included in net periodic benefit cost	35.8	(12.2)	) 23.6
Net deferred actuarial loss arising during period	(55.2)	) 18.7	(36.5)
Benefit plans, net	(22.3)	) 7.5	(14.8)
Currency translation adjustments	12.2	—	12.2
Loss from hedging activities	(1.4)	) 0.4	(1.0)
Other comprehensive loss attributable to W. R. Grace & Co. shareholders	\$(11.5)	) \$7.9	\$(3.6)

The following table presents the components of Grace's accumulated other comprehensive loss at December 31, 2012, 2011, and 2010:

Components of Accumulated Other Comprehensive Loss (In millions)	December 31,		
	2012	2011	2010
Defined benefit pension and other postretirement plans:			
Net prior service cost (net of tax)	\$(1.3)	) \$(1.8)	) \$(2.8)
Net deferred actuarial loss (net of tax)	(640.5)	) (603.4)	) (555.7)
Benefit plans, net	(641.8)	) (605.2)	) (558.5)
Currency translation	35.6	30.2	41.8
Hedging activities, net of tax	(0.3)	) (2.7)	) (0.6)
Unrealized loss on investment	(0.8)	) (0.8)	) (0.8)
Accumulated other comprehensive loss	\$(607.3)	) \$(578.5)	) \$(518.1)

Accumulated other comprehensive loss related to the defined benefit pension and other postretirement plans at December 31, 2012, 2011, and 2010, respectively, represents the accumulation of net deferred actuarial losses of \$640.5 million, \$603.4 million, and \$555.7 million as well as net prior service costs of \$1.3 million, \$1.8 million, and \$2.8 million. These amounts are net of tax and are amortized as a component of net periodic benefit cost.

Grace is a global enterprise operating in over 40 countries with local currency generally deemed to be the functional currency for accounting purposes. The currency translation amount represents the adjustments

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## Notes to Consolidated Financial Statements (Continued)

## 15. Other Comprehensive Loss (Continued)

necessary to translate the balance sheets valued in local currencies to the U.S. dollar as of the end of each period presented, and to translate revenues and expenses at average exchange rates for each period presented.

See Note 8 for a discussion of hedging activities.

## 16. Shareholders' Equity

Under its Certificate of Incorporation, the Company is authorized to issue 300,000,000 shares of common stock, \$0.01 par value. As of December 31, 2012, the W. R. Grace & Co. 2000 and 2011 Stock Incentive Plans (collectively, the "Plans") expired. Prior to the expiration of the Plans, 10,100,000 shares of unissued stock were reserved for issuance in the event of the exercise of stock options under the Plans. Historically all stock options exercised were covered by reissuing treasury stock. If the shares issuable upon exercise of stock options exceed the balance available in treasury stock, the Company will issue new shares, which are reserved for issuance under the Plans. For the years ended December 31, 2012, 2011, and 2010, 1,679,359, 765,693, and 837,039 stock options were exercised for aggregate proceeds of \$32.1 million, \$12.1 million, and \$10.4 million, respectively.

The following table sets forth information relating to common stock activity for 2012 and 2011:

Balance, December 31, 2010	73,120,357
Stock options exercised	765,693
Balance, December 31, 2011	73,886,050
Stock options exercised	1,679,359
Balance, December 31, 2012	75,565,409

## 17. Stock Incentive Plans

The Company has granted nonstatutory stock options to certain key employees under the Plans. The Plans are administered by the Compensation Committee of the Board of Directors. Stock options are generally non-qualified and are at exercise prices not less than 100% of the per share fair market value on the date of grant. Stock-based compensation awards granted under the Company's stock incentive plans are generally subject to a vesting period from the date of the grant ranging from 1 - 3 years. Currently outstanding options expire on various dates through December 2017.

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## Notes to Consolidated Financial Statements (Continued)

## 17. Stock Incentive Plans (Continued)

The following table sets forth information relating to such options during 2012, 2011, and 2010:

Stock Option Activity	Number Of Shares	Average Exercise Price	Weighted- Average Grant Date Fair Value
Balance at January 1, 2010	4,172,206	\$ 14.19	
Options exercised	(837,039 )	12.42	
Options forfeited	(170,212 )	18.60	
Options terminated	(52,100 )	13.09	
Options granted	1,355,486	27.75	10.13
Balance at December 31, 2010	4,468,341	18.48	
Options exercised	(765,693 )	15.76	
Options forfeited	(45,369 )	22.30	
Options terminated	(7,011 )	8.03	
Options granted	1,287,152	42.18	15.44
Balance at December 31, 2011	4,937,420	25.08	
Options exercised	(1,679,359 )	19.14	
Options forfeited	(51,573 )	37.67	
Options terminated	(10,995 )	15.74	
Options granted	828,991	49.01	16.67
Balance at December 31, 2012	4,024,484	32.33	

The following is a summary of non-vested option activity for the year ended December 31, 2012:

Stock Option Activity	Number Of Shares	Weighted- Average Grant Date Fair Value
Non-vested options outstanding at beginning of year	2,615,148	\$11.57
Granted	828,991	16.67
Vested / exercised	(1,313,898 )	9.67
Forfeited	(62,568 )	11.61
Non vested options outstanding at end of year	2,067,673	14.90

As of December 31, 2012, the intrinsic value (the difference between the exercise price and the market price) for options outstanding was \$138.5 million and for options exercisable was \$87.3 million. The total intrinsic value of all options exercised during the years ended December 31, 2012, 2011 and 2010 was \$65.3 million, \$21.9 million and \$13.8 million, respectively. A summary of our stock options outstanding and exercisable at December 31, 2012, follows:

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## Notes to Consolidated Financial Statements (Continued)

## 17. Stock Incentive Plans (Continued)

Exercise Price Range	Number Outstanding	Number Exercisable	Outstanding Weighted-Average Remaining Contractual Life (Years)	Exercisable Weighted-Average Exercise Price
\$0 - \$10	740,401	740,401	1.35	\$9.79
\$10 - \$20	286,915	286,915	0.71	19.63
\$20 - \$30	1,027,008	608,464	2.33	27.75
\$30 - \$40	16,192	5,397	3.60	37.06
\$40 - \$50	1,924,181	315,634	3.83	42.24
\$50 - \$60	5,000	—	4.54	—
\$60 - \$70	24,787	—	4.93	—
	4,024,484	1,956,811	2.78	22.12

At December 31, 2012, the weighted-average remaining contractual term of all options outstanding and exercisable was 1.89 years.

Options Granted

The Company granted approximately 0.8 million, 1.3 million, and 1.4 million nonstatutory stock options in 2012, 2011, and 2010, respectively, under the Plans. The 2010 grants were components of long term incentive plans that also included a cash component, whereas the 2011 and 2012 long term incentive plan consisted only of stock options. For the years ended December 31, 2012, 2011 and 2010, Grace recognized non-cash stock-based compensation expense of \$14.7 million, \$14.0 million and \$9.5 million, respectively, which is included in selling, general and administrative expense.

Grace values options using the Black-Scholes option-pricing model, which was developed for use in estimating the fair value of traded options. The risk-free rate is based on the U.S. Treasury yield curve published as of the grant date, with maturities approximating the expected term of the options. The expected term of the options is estimated using the simplified method as allowed by ASC 718-20, whereby the average between the vesting period and contractual term is used. The expected volatility was estimated using both actual stock volatility and the volatility of an industry peer group. Grace believes its actual stock volatility in the last several years may not be representative of expected future volatility. The following summarizes the assumptions used for estimating the fair value of stock options granted during 2012, 2011 and 2010, respectively.

	2012	2011	2010
Expected volatility	35.8% - 46.4%	46.5% - 50.7%	44.7% - 51.2%
Weighted average expected volatility	40.6%	48.7%	47.8%
Expected term	3.00 - 4.00 years	3.00 - 4.00 years	3.00 - 4.00 years
Risk-free rate	0.55%	1.43%	1.87%
Dividend yield	—%	—%	—%

Total unrecognized stock-based compensation expense at December 31, 2012, was \$11.1 million and the weighted-average period over which this expense will be recognized is 0.9 years.



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## Notes to Consolidated Financial Statements (Continued)

## 18. Earnings Per Share

The following table shows a reconciliation of the numerators and denominators used in calculating basic and diluted earnings per share.

(In millions, except per share amounts)	2012	2011	2010
Numerators			
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	\$207.1
Denominators			
Weighted average common shares—basic calculation	74.9	73.6	72.7
Dilutive effect of employee stock options	1.4	1.9	1.7
Weighted average common shares—diluted calculation	76.3	75.5	74.4
Basic earnings per share	\$1.26	\$3.66	\$2.85
Diluted earnings per share	\$1.23	\$3.57	\$2.78

Stock options that could potentially dilute earnings per share (that were excluded from the computation of diluted earnings per share because their exercise prices were greater than the average market price of the common shares) were approximately 0.4 million, 1.3 million and 0.9 million for the years ended December 31, 2012, 2011 and 2010, respectively. The effect of the warrant for 10 million shares that would be issued under the Joint Plan, as discussed in Note 2, is not included in diluted earnings per share.

## 19. Acquisitions

In 2012, Grace completed two business combinations for total consideration of \$80.0 million as follows:

In July 2012, Grace acquired the stock of Rheoset Industria e Comercio de Aditivos Ltda. ("Rheoset"), a leading manufacturer of concrete admixtures in Brazil.

In November 2012, Grace acquired the assets of Noblestar Catalysts Co., Ltd ("Noblestar"), a Qingdao, China-based manufacturer of fluid catalytic cracking (FCC) catalysts, catalyst intermediates and related products used in the petroleum refining industry.

The purchase price for the acquisitions was allocated to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values at the acquisition date in accordance with ASC 805 "Business Combinations".

	(In millions)
Goodwill	\$46.6
Tangible assets	22.4
Intangible assets	21.6
Liabilities assumed	(10.6 )
Net assets acquired, net of cash acquired	\$80.0

## 20. Operating Segment Information

Grace is a global producer of specialty chemicals and specialty materials. In the 2012 first quarter, Grace announced a realignment of its business into three operating segments: Grace Catalysts Technologies, Grace Materials Technologies, and Grace Construction Products. Grace made this change to align its operating segments more closely with the markets it serves, and to better position its businesses to realize operational efficiencies and reduce overhead costs. Grace Catalysts Technologies includes catalysts and related products used in refining, petrochemical and other chemical manufacturing applications. Grace's Advanced Refining Technologies (ART) joint venture is managed in this segment. ART is an unconsolidated affiliate, and Grace accounts for ART using the equity method as discussed in Note 21. Grace Materials Technologies includes packaging technologies and

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## Notes to Consolidated Financial Statements (Continued)

## 20. Operating Segment Information (Continued)

engineered materials, coatings and sealants used in consumer, industrial, and pharmaceutical applications. Grace Construction Products includes specialty construction chemicals and specialty building materials used in commercial, infrastructure and residential construction. Intersegment sales are eliminated in consolidation. The table below presents information related to Grace's operating segments. Only those corporate expenses directly related to the operating segments are allocated for reporting purposes. All remaining corporate items are reported separately and labeled as such.

Grace also excludes defined benefit pension expense from the calculation of segment operating income. Grace believes that the exclusion of defined benefit pension expense provides a better indicator of its operating segment performance as defined benefit pension expense is not managed at an operating segment level.

Grace defines Adjusted EBIT (a non-GAAP financial measure) to be net income adjusted for interest income and expense, income taxes, net Chapter 11- and asbestos-related costs, restructuring expenses and related asset impairments, divestment expenses, and gains and losses on sales of product lines and other investments.

## Operating Segment Data

(In millions)	2012	2011	2010	
Net Sales				
Catalysts Technologies	\$1,268.1	\$1,347.3	\$982.3	
Materials Technologies	862.6	872.6	819.4	
Construction Products	1,024.8	992.0	873.3	
Total	\$3,155.5	\$3,211.9	\$2,675.0	
Adjusted EBIT				
Catalysts Technologies segment operating income	\$393.8	\$388.8	\$239.6	
Materials Technologies segment operating income	162.0	158.7	160.0	
Construction Products segment operating income	125.2	97.3	89.9	
Corporate costs	(92.4	) (102.8	) (86.0	)
Defined benefit pension expense	(71.2	) (63.4	) (77.1	)
Total	\$517.4	\$478.6	\$326.4	
Depreciation and Amortization				
Catalysts Technologies	\$54.0	\$52.5	\$48.7	
Materials Technologies	29.5	30.9	31.8	
Construction Products	32.9	34.0	32.5	
Corporate	2.6	2.6	2.6	
Total	\$119.0	\$120.0	\$115.6	
Capital Expenditures				
Catalysts Technologies	\$70.8	\$74.5	\$62.0	
Materials Technologies	27.1	32.3	20.3	
Construction Products	26.5	19.5	19.6	
Corporate	14.1	17.7	9.2	
Total	\$138.5	\$144.0	\$111.1	
Total Assets				
Catalysts Technologies	\$794.8	\$804.5	\$672.7	
Materials Technologies	494.9	481.1	458.4	
Construction Products	616.0	545.9	486.0	
Corporate	3,184.5	2,662.5	2,654.6	
Total	\$5,090.2	\$4,494.0	\$4,271.7	

Corporate costs include corporate support function costs and other corporate costs such as non-asbestos environmental remediation, insurance premiums and professional fees.



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## Notes to Consolidated Financial Statements (Continued)

## 20. Operating Segment Information (Continued)

Grace Adjusted EBIT for the years ended December 31, 2012, 2011 and 2010 is reconciled below to income before income taxes presented in the accompanying Consolidated Statements of Operations.

## Reconciliation of Operating Segment Data to Financial Statements

(In millions)	Year Ended December 31,		
	2012	2011	2010
Grace Adjusted EBIT	\$517.4	\$478.6	\$326.4
Chapter 11- and asbestos-related costs, net	(407.8	) (44.7	) (35.3
Restructuring expenses and related asset impairments	(6.9	) (6.9	) (11.2
Loss on sale of product line	(0.2	) (0.4	) —
Divestment expenses	(0.2	) (0.4	) —
Interest expense and related financing costs	(46.5	) (43.3	) (41.3
Interest income of non-Debtor subsidiaries	1.0	1.2	1.0
Net income (loss) attributable to noncontrolling interests	1.0	(0.6	) 0.3
Income before income taxes	\$57.8	\$383.5	\$239.9

The table below presents information related to the geographic areas in which Grace operates. Sales are attributed to geographic areas based on customer location.

## Geographic Area Data

(In millions)	2012	2011	2010
Net Sales			
United States	\$878.9	\$945.0	\$773.2
Canada and Puerto Rico	88.7	96.8	81.0
Total North America	967.6	1,041.8	854.2
Europe Middle East Africa	1,175.6	1,260.4	1,052.6
Asia Pacific	660.3	599.3	483.2
Latin America	352.0	310.4	285.0
Total	\$3,155.5	\$3,211.9	\$2,675.0
Properties and Equipment, net			
United States	\$438.4	\$421.1	\$409.6
Canada and Puerto Rico	19.8	19.5	20.3
Total North America	458.2	440.6	429.9
Europe Middle East Africa	210.3	202.1	200.1
Asia Pacific	72.1	53.8	50.6
Latin America	29.9	27.0	21.9
Total	\$770.5	\$723.5	\$702.5
Goodwill and Other Assets			
United States	\$91.5	\$110.3	\$111.7
Canada and Puerto Rico	7.3	7.3	7.3
Total North America	98.8	117.6	119.0
Europe Middle East Africa	105.2	108.9	76.0
Asia Pacific	40.1	12.4	12.9
Latin America	59.8	17.9	20.1
Total	\$303.9	\$256.8	\$228.0

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## Notes to Consolidated Financial Statements (Continued)

## 21. Unconsolidated Affiliate

Grace accounts for its 50% ownership interest in ART using the equity method of accounting. Grace's investment in ART amounted to \$85.5 million and \$70.8 million as of December 31, 2012 and 2011, respectively, and the amount included in "equity in earnings of unconsolidated affiliate" in the Consolidated Statements of Operations totaled \$18.5 million, \$15.2 million and \$17.8 million for the years ended December 31, 2012, 2011 and 2010, respectively. ART is a private company and accordingly does not have a quoted market price available. The following summary lists ART's assets, liabilities and results of operations.

(In millions)	December 31,	
	2012	2011
Summary of Balance Sheet information:		
Current assets	\$136.7	\$136.6
Noncurrent assets	65.9	46.4
Total assets	\$202.6	\$183.0
Current liabilities	\$37.8	\$48.1
Noncurrent liabilities	0.1	—
Total liabilities	\$37.9	\$48.1

(In millions)	Year Ended December 31,		
	2012	2011	2010
Summary of Statement of Operations information:			
Net sales	\$325.0	\$339.0	\$308.2
Costs and expenses applicable to net sales	276.0	296.3	262.6
Income before income taxes	38.9	32.8	37.3
Net income	37.8	31.2	35.7

Grace and ART transact business on a regular basis and maintain several agreements in order to effect such business. These agreements are treated as related party activities with an unconsolidated affiliate. The table below presents a summary of financial data related to transactions between Grace and ART.

(In millions)	Year Ended December 31,		
	2012	2011	2010
Grace sales of catalysts to ART	\$206.9	\$171.4	\$211.0
Charges for fixed costs, research and development and selling, general and administrative services to ART	28.5	27.8	24.5

Grace and Chevron provide lines of credit in the amount of \$15 million each at a commitment fee of 0.1% of the credit amount. These agreements expire on February 28, 2013, and are expected to be renewed. No amounts were outstanding at December 31, 2012 and 2011.

## 22. Noncontrolling Interests in Consolidated Affiliates

Grace conducts certain business activities in various countries through joint ventures with unaffiliated third parties. In certain cases, the financial results and financial position of these joint ventures are fully included in Grace's consolidated financial statements with the partner's interest reflected in noncontrolling interests in Consolidated Statements of Operations and Consolidated Balance Sheets. The following tables present summary financial information for Grace's consolidated affiliates for which there is a noncontrolling interest:

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## Notes to Consolidated Financial Statements (Continued)

## 22. Noncontrolling Interests in Consolidated Affiliates (Continued)

Statements of Operations (In millions)	Year Ended December 31,		
	2012	2011	2010
Sales	\$108.8	\$86.3	\$87.0
Income (loss) before taxes	1.2	(0.5	) 1.6
Net income (loss)	(0.4	) (0.9	) 1.0
Noncontrolling interests in net income (loss)	1.0	(0.6	) 0.3
Balance Sheets (In millions)	December 31,		
	2012	2011	2010
Cash	\$5.7	\$6.7	\$10.2
Other current assets	41.6	34.7	30.5
Total assets	73.8	53.0	52.4
Total liabilities	47.2	30.3	30.1
Shareholders' equity	26.6	22.7	22.3
Noncontrolling interests in shareholders' equity	9.9	8.1	6.9

## 23. Quarterly Summary and Statistical Information (Unaudited)

(In millions, except per share amounts)	March 31	June 30	September 30	December 31
2012				
Net sales	\$754.4	\$826.7	\$776.6	\$797.8
Cost of goods sold	477.3	522.6	491.8	497.5
Net income (loss)	60.9	69.3	75.5	(111.6
Net income per share:(1)				)
Basic earnings per share:				
Net income (loss)	\$0.82	\$0.93	\$1.01	\$(1.48
Diluted earnings per share:				)
Net income (loss)	0.80	0.90	0.99	(1.48
Market price of common stock:(2)				)
High	\$58.89	\$61.08	\$61.58	\$68.86
Low	45.39	47.40	48.14	58.40
Close	57.80	50.45	59.08	67.23

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## Notes to Consolidated Financial Statements (Continued)

## 23. Quarterly Summary and Statistical Information (Unaudited) (Continued)

(In millions, except per share amounts)	March 31	June 30	September 30	December 31
2011				
Net sales	\$695.7	\$826.4	\$864.2	\$825.6
Cost of goods sold	443.3	521.8	547.8	537.7
Net income	54.2	75.8	81.3	58.1
Net income per share:(1)				
Basic earnings per share:				
Net income	\$0.74	\$1.03	\$1.10	\$0.79
Diluted earnings per share:				
Net income	0.72	1.00	1.07	0.77
Market price of common stock:(2)				
High	\$39.81	\$47.02	\$52.50	\$46.07
Low	34.52	36.98	32.24	30.25
Close	38.29	45.63	33.30	45.92

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(1) Per share results for the four quarters may differ from full-year per share results, as a separate computation of the weighted average number of shares outstanding is made for each quarter presented.

(2) Principal market: New York Stock Exchange.

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## SELECTED FINANCIAL DATA(1)

(In millions, except per share amounts)	2012	2011	2010	2009	2008	
Statement of Operations						
Net sales	\$3,155.5	\$3,211.9	\$2,675.0	\$2,825.0	\$3,317.0	
Income before income taxes	57.8	383.5	239.9	92.7	141.2	
Net income	95.1	268.8	207.4	81.2	136.9	
Net loss (income) attributable to noncontrolling interests	(1.0	) 0.6	(0.3	) (10.0	) (15.4	)
Net income attributable to W.R. Grace & Co. shareholders	94.1	269.4	207.1	71.2	121.5	
Financial Position						
Cash and cash equivalents	\$1,336.9	\$1,048.3	\$1,015.7	\$893.0	\$460.1	
Property and equipment, net	770.5	723.5	702.5	690.1	710.6	
Total assets	5,090.2	4,494.0	4,271.7	3,968.2	3,875.5	
Total liabilities	4,771.9	4,326.5	4,340.5	4,258.7	4,229.3	
Liabilities subject to compromise (a subset of total liabilities)	3,617.1	3,195.7	3,174.1	3,147.1	3,112.9	
Shareholders' equity (deficit)	318.3	167.5	(68.8	) (290.5	) (353.8	)
Cash Flow						
Operating activities	\$453.6	\$219.4	\$325.9	\$433.4	\$15.0	
Investing activities	(280.3	) (220.9	) (243.1	) 26.1	(31.1	)
Financing activities	110.3	39.7	41.5	(41.3	) 0.6	
Net cash flow	288.6	32.6	122.7	432.9	(20.4	)
Data Per Common Share (Diluted)						
Net income	\$1.23	\$3.57	\$2.78	\$0.98	\$1.68	
Average common diluted shares outstanding	76.3	75.5	74.4	72.6	72.5	
Other Statistics						
Capital expenditures	\$138.5	\$144.0	\$111.1	\$93.8	\$132.2	
Common stock price range	45.39-68.86	30.25-52.50	19.63-36.27	4.07-26.17	3.01-27.79	
Common shareholders of record	7,591	8,063	8,270	8,505	8,801	
Number of employees (approximately)	6,500	6,300	6,000	5,900	6,300	

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(1) Certain prior-year amounts have been reclassified to conform to the 2012 presentation.



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### Management's Discussion and Analysis of Financial Condition and Results of Operations

See Analysis of Operations for a discussion of our non-GAAP performance measures. Our references to "advanced economies" and "emerging regions" refer to classifications established by the International Monetary Fund.

### Results of Operations

#### 2012 Performance Summary

Following is a summary of our financial performance for the year ended December 31, 2012, compared with the prior year.

• Net sales decreased 1.8% to \$3,155.5 million, as improved base pricing and higher sales volumes were offset by lower rare earth surcharges and unfavorable currency translation.

• Gross margin increased 80 basis points to 37.0%.

• Adjusted EBIT increased 8.1% to \$517.4 million.

• Grace net income decreased 65.1% to \$94.1 million or \$1.23 per diluted share due to a \$365.0 million non-cash adjustment to our asbestos-related liability.

• Adjusted EBIT Return On Invested Capital was 36.3% on a trailing four quarters basis compared with 35.4% in the prior year.

#### Summary Description of Business

We are engaged in specialty chemicals and specialty materials businesses on a worldwide basis through our three operating segments, Grace Catalysts Technologies, Grace Materials Technologies, and Grace Construction Products. See Item 1 (Business—Business Overview) of this Report for a summary description of our core business.

#### Analysis of Operations

We have set forth in the table below our key operating statistics with percentage changes for the years ended December 31, 2012, 2011, and 2010. Please refer to this Analysis of Operations when reviewing this Management's Discussion and Analysis of Financial Condition and Results of Operations.

We define Adjusted EBIT (a non-GAAP financial measure) to be net income adjusted for interest income and expense, income taxes, net Chapter 11- and asbestos-related costs, restructuring expenses and related asset impairments, divestment expenses, and gains and losses on sales of product lines and other investments.

We define Adjusted EBITDA (a non-GAAP financial measure) to be Adjusted EBIT adjusted for depreciation and amortization.

We define Adjusted Earnings Per Share (EPS) (a non-GAAP financial measure) to be Diluted EPS adjusted for net Chapter 11- and asbestos-related costs, restructuring expenses and related asset impairments, divestment expenses, gains and losses on sales of product lines and other investments, and certain discrete tax items.

We define Adjusted EBIT Return On Invested Capital (a non-GAAP financial measure) to be Adjusted EBIT (on a trailing four quarters basis) divided by the sum of net working capital, properties and equipment and certain other assets and liabilities.

We use Adjusted EBIT as a performance measure in significant business decisions and in determining certain incentive compensation. We use Adjusted EBIT as a performance measure because it provides improved period-to-period comparability for decision making and compensation purposes, and because it better measures the ongoing earnings results of our strategic and operating decisions by excluding the earnings effects of net Chapter 11- and asbestos-related costs, and any restructuring or divestment activities.

Adjusted EBIT, Adjusted EBITDA, Adjusted EPS and Adjusted EBIT Return On Invested Capital do not purport to represent income measures as defined under U.S. GAAP, and should not be used as alternatives to such measures as an indicator of our performance. These measures are provided to investors and others to improve the period-to-period comparability and peer-to-peer comparability of our financial results, and to ensure that investors

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understand the information we use to evaluate the performance of our businesses. We have provided in the following tables a reconciliation of these non-GAAP measures to the most directly comparable financial measure calculated and presented in accordance with U.S. GAAP.

Adjusted EBIT has material limitations as an operating performance measure because it excludes Chapter 11- and asbestos-related costs and may exclude income and expenses from restructuring and divestment activities, which historically have been material components of our net income. Adjusted EBITDA also has material limitations as an operating performance measure because it excludes the impact of depreciation and amortization expense. Our business is substantially dependent on the successful deployment of capital, and depreciation and amortization expense is a necessary element of our costs. We compensate for the limitations of these measurements by using these indicators together with net income as measured under U.S. GAAP to present a complete analysis of our results of operations. Adjusted EBIT and Adjusted EBITDA should be evaluated together with net income measured under U.S. GAAP for a complete understanding of our results of operations.

Analysis of Operations (In millions, except per share amounts)	2012	2011	% Change	2010	% Change	
Net sales:						
Catalysts Technologies	\$1,268.1	\$1,347.3	(5.9 )%	\$982.3	37.2 %	
Materials Technologies	862.6	872.6	(1.1 )%	819.4	6.5 %	
Construction Products	1,024.8	992.0	3.3 %	873.3	13.6 %	
Total Grace net sales	\$3,155.5	\$3,211.9	(1.8 )%	\$2,675.0	20.1 %	
Net sales by region:						
North America	\$967.6	\$1,041.8	(7.1 )%	\$854.2	22.0 %	
Europe Middle East Africa	1,175.6	1,260.4	(6.7 )%	1,052.6	19.7 %	
Asia Pacific	660.3	599.3	10.2 %	483.2	24.0 %	
Latin America	352.0	310.4	13.4 %	285.0	8.9 %	
Total net sales by region	\$3,155.5	\$3,211.9	(1.8 )%	\$2,675.0	20.1 %	
Profitability performance measures:						
Adjusted EBIT(A)(B):						
Catalysts Technologies segment operating income	\$393.8	\$388.8	1.3 %	\$239.6	62.3 %	
Materials Technologies segment operating income	162.0	158.7	2.1 %	160.0	(0.8 )%	
Construction Products segment operating income	125.2	97.3	28.7 %	89.9	8.2 %	
Corporate support functions (including performance based compensation)	(66.3 )	(74.8 )	11.4 %	(63.6 )	(17.6 )%	
Other corporate costs (including non-asbestos environmental remediation)	(26.1 )	(28.0 )	6.8 %	(22.4 )	(25.0 )%	
Defined benefit pension expense(B)	(71.2 )	(63.4 )	(12.3 )%	(77.1 )	17.8 %	
Adjusted EBIT	517.4	478.6	8.1 %	326.4	46.6 %	
Chapter 11- and asbestos-related costs, net	(407.8 )	(44.7 )	NM	(35.3 )	(26.6 )%	
Restructuring expenses and related asset impairments	(6.9 )	(6.9 )	— %	(11.2 )	38.4 %	
Loss on sale of product line	(0.2 )	(0.4 )	50.0 %	—	NM	
Divestment expenses	(0.2 )	(0.4 )	50.0 %	—	NM	
Interest expense and related financing costs	(46.5 )	(43.3 )	(7.4 )%	(41.3 )	(4.8 )%	
Interest income of non-Debtor subsidiaries	1.0	1.2	(16.7 )%	1.0	20.0 %	
Benefit from (provision for) income taxes	37.3	(114.7 )	132.5 %	(32.5 )	NM	
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	(65.1 )%	\$207.1	30.1 %	
Diluted EPS (GAAP)	\$1.23	\$3.57	(65.5 )%	\$2.78	28.4 %	
Adjusted EPS (non-GAAP)	\$4.17	\$3.94	5.8 %	\$2.63	49.8 %	



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Analysis of Operations (In millions)	2012	2011	% Change	2010	% Change	
Profitability performance measures:						
Gross margin:						
Catalysts Technologies	41.0	% 39.8	% 1.2 pts	36.7	% 3.1 pts	
Materials Technologies	33.1	% 33.2	% (0.1) pts	34.7	% (1.5) pts	
Construction Products	35.2	% 33.8	% 1.4 pts	34.8	% (1.0) pts	
Total Grace	37.0	% 36.2	% 0.8 pts	35.5	% 0.7 pts	
Operating margin:						
Catalysts Technologies	31.1	% 28.9	% 2.2 pts	24.4	% 4.5 pts	
Materials Technologies	18.8	% 18.2	% 0.6 pts	19.5	% (1.3) pts	
Construction Products	12.2	% 9.8	% 2.4 pts	10.3	% (0.5) pts	
Total Grace	16.4	% 14.9	% 1.5 pts	12.2	% 2.7 pts	
Adjusted EBITDA:						
Adjusted EBIT:						
Catalysts Technologies	\$393.8	\$388.8	1.3	% \$239.6	62.3	%
Materials Technologies	162.0	158.7	2.1	% 160.0	(0.8)	)%
Construction Products	125.2	97.3	28.7	% 89.9	8.2	%
Corporate	(163.6)	(166.2)	1.6	% (163.1)	(1.9)	)%
Total Grace	517.4	478.6	8.1	% 326.4	46.6	%
Depreciation and amortization:						
Catalysts Technologies	\$54.0	\$52.5	2.9	% \$48.7	7.8	%
Materials Technologies	29.5	30.9	(4.5)	)% 31.8	(2.8)	)%
Construction Products	32.9	34.0	(3.2)	)% 32.5	4.6	%
Corporate	2.6	2.6	—	% 2.6	—	%
Total Grace	119.0	120.0	(0.8)	)% 115.6	3.8	%
Adjusted EBITDA:						
Catalysts Technologies	\$447.8	\$441.3	1.5	% \$288.3	53.1	%
Materials Technologies	191.5	189.6	1.0	% 191.8	(1.1)	)%
Construction Products	158.1	131.3	20.4	% 122.4	7.3	%
Corporate	(161.0)	(163.6)	1.6	% (160.5)	(1.9)	)%
Total Grace	636.4	598.6	6.3	% 442.0	35.4	%
Adjusted EBITDA margin:						
Catalysts Technologies	35.3	% 32.8	% 2.5 pts	29.3	% 3.5 pts	
Materials Technologies	22.2	% 21.7	% 0.5 pts	23.4	% (1.7) pts	
Construction Products	15.4	% 13.2	% 2.2 pts	14.0	% (0.8) pts	
Total Grace	20.2	% 18.6	% 1.6 pts	16.5	% 2.1 pts	

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Analysis of Operations (In millions)	2012	2011	2010
Calculation of Adjusted EBIT Return On Invested Capital (trailing four quarters):			
Adjusted EBIT	\$517.4	\$478.6	\$326.4
Invested Capital:			
Trade accounts receivable	490.4	473.0	386.1
Inventories	278.6	329.1	259.3
Accounts payable	(252.0 )	(257.6 )	(215.6 )
	517.0	544.5	429.8
Other current assets (excluding income taxes)	62.4	82.6	74.9
Properties and equipment, net	770.5	723.5	702.5
Goodwill	196.7	148.2	125.5
Investment in unconsolidated affiliate	85.5	70.8	56.4
Other assets	107.2	103.3	97.5
Other current liabilities (excluding income taxes and restructuring)	(258.9 )	(259.5 )	(229.1 )
Other liabilities (including non-asbestos environmental remediation)	(56.5 )	(60.9 )	(58.3 )
Total invested capital	\$1,423.9	\$1,352.5	\$1,199.2
Adjusted EBIT Return On Invested Capital	36.3 %	35.4 %	27.2 %

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Amounts may not add due to rounding.

(A) Grace's segment operating income includes only Grace's share of income of consolidated and unconsolidated joint ventures.

Defined benefit pension expense includes all defined benefit pension expense of Grace. Catalysts Technologies, (B) Materials Technologies, and Construction Products segment operating income and corporate costs do not include amounts for defined benefit pension expense.

NM—Not Meaningful

Grace Overview

Following is an overview of our financial performance for the years ended December 31, 2012, 2011, and 2010.

Net Sales and Gross Margin

(\$ in millions)

The following tables identify the year-over-year increase or decrease in sales attributable to changes in sales volume and/or mix, product price, and the impact of currency translation.

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Net Sales Variance Analysis	2012 as a Percentage Increase (Decrease) from 2011				
	Volume	Price	Currency Translation	Total	
Catalysts Technologies	2.5	% (5.4	)% (3.0	)% (5.9	)%
Materials Technologies	1.7	% 1.8	% (4.6	)% (1.1	)%
Construction Products	4.6	% 1.9	% (3.2	)% 3.3	%
Net sales	2.9	% (1.2	)% (3.5	)% (1.8	)%
By Region:					
North America	(2.8	)% (4.2	)% (0.1	)% (7.1	)%
Europe Middle East Africa	1.1	% (1.5	)% (6.3	)% (6.7	)%
Asia Pacific	9.7	% 2.2	% (1.7	)% 10.2	%
Latin America	16.7	% 3.9	% (7.2	)% 13.4	%

Sales for 2012 decreased 1.8% overall compared with the prior year. The sales decrease was due to lower rare earth surcharges (-5.3%), primarily in North America and EMEA, and unfavorable currency translation (-3.5%), partially offset by improved base pricing (+4.1%) and higher sales volumes (+2.9%). Sales in emerging regions grew 15.2% and represented 37.0% of our total sales.

Net Sales Variance Analysis	2011 as a Percentage Increase (Decrease) from 2010				
	Volume	Price	Currency Translation	Total	
Catalysts Technologies	3.1	% 30.8	% 3.3	% 37.2	%
Materials Technologies	(1.3	)% 4.6	% 3.2	% 6.5	%
Construction Products	7.7	% 3.0	% 2.9	% 13.6	%
Net sales	3.3	% 13.7	% 3.1	% 20.1	%
By Region:					
North America	3.8	% 17.9	% 0.3	% 22.0	%
Europe Middle East Africa	(0.3	)% 14.9	% 5.1	% 19.7	%
Asia Pacific	10.4	% 9.0	% 4.6	% 24.0	%
Latin America	2.5	% 4.2	% 2.2	% 8.9	%

Sales for 2011 increased 20.1% overall compared with the prior year. The sales increase was due to higher rare earth surcharges (+10.1%) primarily in North America and EMEA, improved base pricing (+3.6%), higher sales volumes (+3.3%), and favorable currency translation (+3.1%). Sales in emerging regions grew 15.0% and represented 31.6% of our total sales.

#### Adjusted EBIT (\$ in millions)

Adjusted EBIT was \$517.4 million for 2012, an increase of 8.1% compared with the prior year. The increase was primarily due to higher segment operating income in all three operating segments, a reduction in operating expenses resulting from previously announced restructuring activities, reduced incentive compensation accruals

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and other expense controls, partially offset by unfavorable currency translation and higher pension expense. Gross margin was 37.0% for 2012 compared with 36.2% for the prior year. The increase in gross margin was primarily due to improved pricing and productivity gains, partially offset by higher raw materials costs and the impact of lower rare earth costs and volumes on capitalized inventory values.

Adjusted EBIT was \$478.6 million for 2011, an increase of 46.6% compared with the prior year. The increase was primarily due to the increase in sales and improvement in gross margin. Gross margin was 36.2% for 2011 compared with 35.5% for the prior year. The increase in gross margin was primarily due to improved pricing, favorable currency translation, and better operating leverage, partially offset by inflation in certain raw materials.

Grace Net Income

(\$ in millions)

Grace net income was \$94.1 million for 2012, a decrease of 65.1% compared with \$269.4 million for the prior year. The decrease was primarily due to the \$365.0 million adjustment to the recorded asbestos-related liability and higher defined benefit pension expenses, partially offset by improved segment operating income.

We recorded the \$365.0 million charge in the 2012 fourth quarter to adjust our recorded asbestos-related liability to \$2,065.0 million from the previous amount of \$1,700.0 million. The adjustment to the previous amount was necessary to reflect the increased estimates of the value of the warrants and deferred payment obligation payable to the PI Trust under the Joint Plan.

Grace net income was \$269.4 million for 2011, an increase of 30.1% compared with \$207.1 million for the prior year. The increase was primarily due to improved segment operating income and lower defined benefit pension expense, partially offset by a higher provision for environmental remediation and a higher provision for income taxes. The total provision for environmental remediation was \$17.8 million in 2011 compared with \$4.5 million in the prior year.

We recorded a charge of \$16.2 million in the 2011 fourth quarter primarily related to our estimate of the cost of required remediation at seven facilities that formerly processed vermiculite concentrate from the Libby mine. During the 2011 fourth quarter, EPA requested that we conduct additional remediation at these seven facilities (now eight, including an additional site added by EPA during the 2012 fourth quarter) based on revised risk-based criteria developed by EPA. We estimated the cost of remediating these sites to be \$16.0 million. See Note 12 to the Consolidated Financial Statements for additional information regarding our estimated liability for environmental investigation and remediation costs.

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## Adjusted EPS

The following table reconciles our Diluted EPS (GAAP) to our Adjusted EPS (non-GAAP):

	2012			
(In millions, except per share amounts)	Pre-Tax	Tax at Actual Rate	After-Tax	Per Share
Diluted Earnings Per Share (GAAP)				\$1.23
Restructuring expenses and related asset impairments	\$6.9	\$2.0	\$4.9	0.06
Chapter 11- and asbestos-related costs, net	42.8	13.9	28.9	0.38
Asbestos-related contingencies	365.0	135.3	229.7	3.01
Discrete tax items:				
Release of valuation allowances		44.0	(44.0)	(0.58)
Discrete tax items, including adjustments to uncertain tax positions		(5.3)	5.3	0.07
Adjusted EPS (non-GAAP)				\$4.17
	2011			
(In millions, except per share amounts)	Pre-Tax	Tax at Actual Rate	After-Tax	Per Share
Diluted Earnings Per Share (GAAP)				\$3.57
Restructuring expenses and related asset impairments	\$6.9	\$1.9	\$5.0	0.07
Chapter 11- and asbestos-related costs, net	44.7	13.9	30.8	0.41
Loss on sale of product line and divestment expenses	0.8	0.3	0.5	0.01
Discrete tax items:				
Discrete tax items, including adjustments to uncertain tax positions		9.5	(9.5)	(0.12)
Adjusted EPS (non-GAAP)				\$3.94
	2010			
(In millions, except per share amounts)	Pre-Tax	Tax at Actual Rate	After-Tax	Per Share
Diluted Earnings Per Share (GAAP)				\$2.78
Restructuring expenses and related asset impairments	\$11.2	\$3.2	\$8.0	0.11
Chapter 11- and asbestos-related costs, net	35.3	12.8	22.5	0.30
Discrete tax items:				
U.S. federal income tax settlement		16.9	(16.9)	(0.23)
Massachusetts tax settlement		10.0	(10.0)	(0.13)
Discrete tax items, including adjustments to uncertain tax positions		15.6	(15.6)	(0.20)
Adjusted EPS (non-GAAP)				\$2.63



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Adjusted EBIT Return On Invested Capital

Adjusted EBIT Return On Invested Capital for 2012 was 36.3% on a trailing four quarters basis, an increase from 35.4% on the same basis for 2011 and 27.2% for 2010. We manage our operations with the objective of maximizing sales, earnings and cash flow over time. Doing so requires that we successfully balance our growth, profitability and working capital and other investments to support sustainable, long-term financial performance. We use Adjusted EBIT Return On Invested Capital as a performance measure in evaluating operating results, in making operating and investment decisions and in balancing the growth and profitability of our operations. Generally, we favor those businesses and investments that provide the highest return on invested capital.

Operating Segment Overview—Grace Catalysts Technologies

Following is an overview of the financial performance of Catalysts Technologies for the years ended December 31, 2012, 2011, and 2010.

Net Sales—Grace Catalysts Technologies

(\$ in millions)

Sales were \$1,268.1 million for 2012, a decrease of 5.9% compared with the prior year. The decrease was due to lower rare earth surcharges (-12.6%) and unfavorable currency translation (-3.0%), partially offset by improved base pricing (+7.2%) and higher sales volumes (+2.5%). Sales of our FCC catalysts increased in the emerging regions, partially offset by refinery closures in North America and Europe, which impacted sales by approximately \$48 million, or 4%. In our specialty catalysts business, sales of polypropylene catalysts continued to grow, increasing by double digits compared with 2011 and offsetting decreased sales of polyethylene catalysts due to continued weakness in Europe and slower growth in China.

Sales were \$1,347.3 million for 2011, an increase of 37.2% compared with the prior year. The increase was due to higher rare earth surcharges (+27.5%) primarily in North America and EMEA, improved base pricing (+3.3%), favorable currency translation (+3.3%), and higher sales volumes (+3.1%).

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Segment Operating Income (SOI) and Margin—Grace Catalysts Technologies

(\$ in millions)

Gross profit was \$519.8 million for 2012, a decrease of 3.1% compared with the prior year. Segment gross margin was 41.0% compared with 39.8% for the prior year. The increase in gross margin was primarily due to improved pricing and productivity, partially offset by the impact of lower rare earth costs and volumes on capitalized inventory values and higher raw materials costs, particularly caustic soda and alumina.

Segment operating income was \$393.8 million for 2012, an increase of 1.3% compared with the prior year. Segment operating margin for 2012 increased to 31.1%, an improvement of 220 basis points compared with the prior year, primarily due to improved gross margin and lower operating expenses.

Gross profit was \$536.7 million for 2011, an increase of 48.8% compared with the prior year. Segment gross margin was 39.8% compared with 36.7% for the prior year, primarily due to improved pricing, productivity, and the impact of higher rare earth costs and volumes on capitalized inventory values.

Segment operating income was \$388.8 million for 2011, an increase of 62.3% compared with the prior year. Segment operating margin for 2011 increased to 28.9%, an improvement of 450 basis points compared with the prior year, primarily due to improved gross margin.

In 2012 and 2011, Catalysts Technologies sales were affected by significant volatility in the prices of the rare earths used in the manufacture of our FCC catalysts. During 2010, the People's Republic of China reduced its quotas on exports of rare earths causing significant increases in global prices. In response to these price increases, we implemented surcharges on our FCC catalysts and developed new low- and no-rare earth products to mitigate the higher cost of rare earths without sacrificing performance. These new products have higher base prices than the products they replaced, reflecting improvements in their technology and value to our customers. The surcharges and higher base prices significantly increased sales in 2011 compared to 2010. In the 2011 third quarter, rare earth prices peaked and have since declined significantly. As a result, the amount of our surcharges has decreased with a corresponding decrease in sales. In 2012, the negative effect of lower rare earth surcharges on sales was approximately \$170 million compared with 2011. Based on current trends in rare earth prices, we expect 2013 sales, as compared to prior-year periods, to be negatively affected by lower rare earth surcharges. The higher base prices on the new products increased gross margin and segment operating income in 2011 and 2012.

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Operating Segment Overview—Grace Materials Technologies

Following is an overview of the financial performance of Materials Technologies for the years ended December 31, 2012, 2011, and 2010.

Net Sales—Grace Materials Technologies

(\$ in millions)

Sales were \$862.6 million for 2012, a decrease of 1.1% compared with the prior year. The decrease was due to unfavorable currency translation (-4.6%), partially offset by improved pricing (+1.8%) and higher sales volumes (+1.7%). Of our three segments, Materials Technologies continues to have the highest exposure to Europe, where economic conditions remain uncertain and currency fluctuations have been significant year over year. Sales of packaging products increased compared with the prior year due to improved pricing and increased sales volume. Engineered materials volumes were down compared with the prior year as lower sales volumes in the first half of 2012, from lower demand in Asia and Europe, more than offset second-half volume growth.

Sales were \$872.6 million for 2011, an increase of 6.5% compared with the prior year. The increase was due to improved pricing (+4.6%) and favorable currency translation (+3.2%), partially offset by lower sales volumes (-1.3%).

Segment Operating Income (SOI) and Margin—Grace Materials Technologies

(\$ in millions)

Gross profit was \$285.5 million for 2012, a decrease of 1.4% compared with the prior year. Segment gross margin was 33.1% compared with 33.2% for the prior year.

Segment operating income was \$162.0 million for 2012, an increase of 2.1% compared with the prior year. Segment operating margin for 2012 increased to 18.8%, an improvement of 60 basis points compared with the prior year, primarily due to reduced operating expenses, partially offset by lower gross profit.

Gross profit was \$289.7 million for 2011, an increase of 1.9% compared with the prior year. Segment gross margin was 33.2% compared with 34.7% for the prior year. The decrease was primarily due to higher raw materials costs and unabsorbed manufacturing costs.

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Segment operating income was \$158.7 million for 2011, a decrease of 0.8% compared with the prior year. Segment operating margin for 2011 decreased to 18.2%, a decline of 130 basis points compared with the prior year, primarily due to lower gross margin.

Operating Segment Overview—Grace Construction Products

Following is an overview of the financial performance of Construction Products for the years ended December 31, 2012, 2011, and 2010.

Net Sales—Grace Construction Products

(\$ in millions)

Sales were \$1,024.8 million for 2012, an increase of 3.3% compared with the prior year. The increase was due to higher sales volumes (+4.6%) and improved pricing (+1.9%), partially offset by unfavorable currency translation (-3.2%). Sales in emerging regions, which represented 34.5% of sales for 2012, increased 16.9% due to strong sales in Latin America, the Middle East and emerging Asia. Sales in North America increased 1.3% compared with the prior year primarily due to an increase in residential construction and commercial projects in the United States. Sales in Western Europe declined 15.9% compared with the prior year, due to unfavorable currency translation, the continuing weak construction environment, and our exit from low-margin business in Southern Europe. Our 2012 third quarter acquisition of Rheoset contributed \$15.1 million to sales, which partially offset a \$20.4 million decline in sales due to the 2011 fourth quarter sale of the vermiculite business.

Sales were \$992.0 million for 2011, an increase of 13.6% compared with the prior year. The increase was due to higher sales volumes (+7.7%), improved pricing (+3.0%), and favorable currency translation (+2.9%).

Segment Operating Income (SOI) and Margin—Grace Construction Products

(\$ in millions)

Gross profit was \$361.0 million for 2012, an increase of 7.8% compared with the prior year. Segment gross margin was 35.2% compared with 33.8% for the prior year. The increase was primarily due to improved pricing, better operating leverage from higher sales volumes and a favorable sales mix comparison between the acquired and divested businesses.

Segment operating income was \$125.2 million for 2012, an increase of 28.7% compared with the prior year. Segment operating margin for 2012 increased to 12.2%, an improvement of 240 basis points compared with the

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prior year. These increases were primarily due to improved gross margin, lower operating expenses and higher sales volumes.

Gross profit was \$334.9 million for 2011, an increase of 10.3% compared with the prior year. Segment gross margin was 33.8% compared with 34.8% for the prior year. The decrease was primarily due to higher raw materials and logistics costs, partially offset by higher prices.

Segment operating income was \$97.3 million for 2011, an increase of 8.2% compared with the prior year. Segment operating margin for 2011 decreased to 9.8%, a decline of 50 basis points compared with the prior year, primarily due to lower gross margin and higher operating expenses.

Corporate Overview

(\$ in millions)

Corporate costs include corporate support function costs (such as finance, legal services, human resources, communications, regulatory affairs, information technology and incentive compensation related to corporate functions), and other corporate costs such as non-asbestos environmental remediation, insurance premiums and professional fees.

Corporate costs for 2012 decreased 10.1% compared with the prior year primarily due to the impact of lower performance-based compensation and restructuring initiatives announced in the 2012 first quarter.

Corporate costs for 2011 increased 19.5% compared with the prior year primarily due to higher performance-based compensation and investment in supply chain productivity initiatives.

Defined Benefit Pension Expense

Defined benefit pension expense includes costs under U.S. and non-U.S. defined benefit pension plans that provide benefits to employees of Grace Catalysts Technologies, Grace Materials Technologies, Grace Construction Products, and corporate as well as retirees and former employees of divested businesses where we retained these obligations.

Defined benefit pension expense was \$71.2 million, \$63.4 million and \$77.1 million for 2012, 2011 and 2010, respectively. The increase in expense from 2011 to 2012 was primarily due to year-over-year changes in actuarial assumptions including lower discount rates and a lower expected long-term rate of return on plan assets. The decrease in expense from 2010 to 2011 was primarily due to benefits from an accelerated plan contribution of approximately \$180 million made in March 2011 and better plan asset performance in the U.S. in 2010.

In 2012, approximately 25% of our pension plan participants were active employees; approximately 75% were retired or former employees and approximately 35% were retired or former employees of divested businesses. As a result, only \$30.4 million, or 43%, of total defined benefit pension expense in 2012 related to current service. Approximately 56%, or \$39.7 million, of total defined benefit pension expense resulted from the funded status of our plans and the amortization of accumulated actuarial losses.

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## Chapter 11- and Asbestos-Related Costs

The following table presents Chapter 11- and asbestos-related costs:

(In millions)	2012	2011	2010	
Chapter 11- and asbestos-related costs, net:				
Chapter 11 expenses, net of interest income	\$16.6	\$20.0	\$17.7	
Provision for asbestos-related contingencies	365.0	—	—	
Libby medical program settlement	19.6	—	—	
Legal defense costs	—	—	0.1	
Asbestos administration costs	6.3	4.5	6.1	
Provision for environmental remediation related to asbestos	1.3	16.3	3.7	
D&O insurance costs related to Chapter 11	0.3	0.3	3.5	
Chapter 11 financing related(A):				
Translation effects—intercompany loans	(5.6	) 11.7	25.2	
Value of currency forward contracts—intercompany loans	3.7	(9.3	) (25.4	)
Certain other currency translation costs, net	0.6	1.2	4.3	
Corporate-owned life insurance income, net	—	—	0.1	
Chapter 11- and asbestos-related costs, net	\$407.8	\$44.7	\$35.3	

Due to the bankruptcy, Grace has had significant intercompany loans between its non-U.S. subsidiaries and its U.S. debtor subsidiaries that are not related to its operating activities. In addition, Grace has accumulated significant cash during its bankruptcy. We expect that the intercompany loans will be paid when Grace emerges from bankruptcy, and we expect to use the excess cash balances to fund a significant portion of Grace's emergence from bankruptcy. Accordingly, income and expense items related to the intercompany loans and the cash balances are categorized as Chapter 11- and asbestos-related costs, net.

The increase in Chapter 11- and asbestos-related costs, net, for 2012 compared with 2011 was primarily due to the \$365.0 million adjustment to the recorded asbestos-related liability and the \$19.6 million charge for the court-approved settlement related to the Grace-operated Libby Medical Program, partially offset by the decrease in provision for environmental remediation related to asbestos and the effects of currency exchange rate changes on the value of intercompany loans and related currency forward contracts.

The increase in Chapter 11- and asbestos-related costs, net, for 2011 compared with 2010 was primarily due to an increase in our provision for environmental remediation partially offset by lower D&O insurance costs related to Chapter 11. During the 2011 fourth quarter, EPA requested that we conduct additional remediation at seven facilities (now eight, including an additional site added by EPA during the 2012 fourth quarter) that formerly processed vermiculite concentrate from the Libby mine. We estimated the cost of remediating these sites to be \$16.0 million. See Note 12 to the Consolidated Financial Statements for additional information regarding our estimated liability for environmental investigation and remediation costs.

We present the net costs of our reorganization under Chapter 11 as "Chapter 11 expenses, net of interest income," a separate caption in our Consolidated Statements of Operations.

**Interest Expense**

Interest expense was \$46.5 million for 2012, an increase of 7.4% compared with 2011. Interest expense was \$43.3 million for 2011, an increase of 4.8% compared with 2010. The increases were due to the compounding of interest on certain liabilities subject to compromise over the course of the Chapter 11 proceeding.

The average effective interest rates on pre-petition obligations for 2012, 2011 and 2010 were 3.5%, 3.5%, and 3.6%, respectively. Such interest will not be paid until the Joint Plan (see "—Funding Emergence from Chapter 11" below) or another plan of reorganization is confirmed and becomes effective.

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## Income Taxes

Income tax expense (benefit) for 2012, 2011 and 2010 was \$(37.3) million, \$114.7 million and \$32.5 million, respectively, on income from consolidated operations before income taxes of \$57.8 million, \$383.5 million and \$239.9 million in 2012, 2011 and 2010, respectively.

Our 2012 effective tax rate of approximately (65)% was lower than the 35% U.S. statutory rate primarily due to benefits recognized during the year including \$44.0 million related to the partial release of the valuation allowance on state deferred tax assets, \$18.0 million due to lower taxes in non-U.S. jurisdictions, and \$14.0 million related to domestic production incentives, partially offset by expenses of \$8.2 million related to uncertain tax positions, \$2.2 million related to repatriated foreign earnings and \$8.1 million related to non-deductible expenses.

Our 2011 effective tax rate of approximately 30% was lower than the 35% U.S. statutory rate primarily due to benefits recognized during the year of \$9.3 million from the resolution of uncertain tax positions and the expiration of the statute of limitations in certain domestic and foreign jurisdictions, and \$17.6 million due to lower taxes in non-U.S. jurisdictions, partially offset by expenses of \$1.1 million related to repatriated foreign earnings and \$7.3 million related to non-deductible expenses.

Our 2010 effective tax rate of approximately 14% was lower than the 35% U.S. statutory rate primarily due to benefits recognized during the year of \$41.4 million from the resolution of uncertain tax positions and the expiration of the statute of limitations in certain domestic and foreign jurisdictions, and \$13.8 million due to lower taxes in non-U.S. jurisdictions, partially offset by expenses of \$5.6 million related to repatriated foreign earnings.

See Note 9 to the Consolidated Financial Statements for additional information regarding income taxes.

## Financial Condition, Liquidity, and Capital Resources

Following is an analysis of our financial condition, liquidity and capital resources at December 31, 2012. For additional information regarding our Chapter 11 cases, see Note 2 to the Consolidated Financial Statements. For additional information regarding our asbestos-related litigation, see Note 3 to the Consolidated Financial Statements. For additional information regarding environmental matters, see Note 12 to the Consolidated Financial Statements.

## Funding Emergence from Chapter 11

We filed a joint plan of reorganization with the bankruptcy court on September 19, 2008. We refer herein to this joint plan of reorganization, as subsequently amended and modified, as the Joint Plan. The Joint Plan and some of the objections thereto are described in Note 2 to the Consolidated Financial Statements. The Joint Plan includes material conditions to its confirmation and effectiveness. One of these conditions is that we obtain any required exit financing in an amount and on terms satisfactory to us. If we had emerged from bankruptcy on December 31, 2012, we would have required less than \$300 million of new financing to consummate the Joint Plan. In addition, we intend to seek a \$200 million revolving credit facility in connection with our exit financing. The actual amount of new financing that we will need to fund the Joint Plan will generally depend on the timing of our emergence and the amount of our available cash resources, including net cash from our operating and investing activities, and the final resolution costs for our outstanding claims and contingent liabilities. If we emerge on December 31, 2013, we would not expect to need any exit financing to fund our obligations under the Joint Plan. In preparation for emergence, in 2012, 2011 and 2010 we repatriated approximately \$22 million, \$30 million and \$116 million, respectively, from our non-U.S. subsidiaries to fund payment of bankruptcy claims.

## Cash Resources and Available Credit Facilities

At December 31, 2012, we had available liquidity of \$1,386.9 million, consisting of \$1,336.9 million in cash and cash equivalents (\$1,077.7 million in the U.S.), and \$50.0 million of available liquidity under various non-U.S. credit facilities.

We maintain a \$100 million cash-collateralized letter of credit facility to support existing and new financial assurances and cash collateral accounts that secure the obligations arising from letters of credit and foreign currency and commodity transactions and derivatives. At December 31, 2012, we held \$103.3 million in restricted cash and cash equivalents to support this facility. At emergence, we expect to replace the cash-collateralized letter of credit facility with a revolving credit facility and to use the restricted cash to reduce our exit financing requirements.





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Our non-U.S. credit facilities are extended to various subsidiaries that use them primarily to issue bank guarantees supporting trade activity and to provide working capital during occasional cash shortfalls. The credit facility in Germany is secured by third-party accounts receivable, with availability determined on the basis of eligible outstanding receivables.

The following table summarizes our non-U.S. credit facilities as of December 31, 2012:

Credit Facilities (In millions)	Maximum Borrowing Amount	Available Liquidity	Expiration Date
Country			
Germany	\$66.4	\$15.8	12/31/2013
Other countries	22.4	5.7	Various through 2015
Other countries—cash collateralized(1)	100.0	28.5	3/1/2013
Total	\$188.8	\$50.0	

(1) Cash collateral related to these facilities is included in restricted cash in the Consolidated Balance Sheets.

We believe that these funds and credit facilities are sufficient to finance our operations and support our business strategy. We intend to renew our non-U.S. facilities as they expire.

#### Analysis of Cash Flows

The following table summarizes our cash flows for the years ended December 31, 2012, 2011, and 2010:

(In millions)	Year Ended December 31,		
	2012	2011	2010
Net cash provided by operating activities	\$453.6	\$219.4	\$325.9
Net cash used for investing activities	(280.3)	(220.9)	(243.1)
Net cash provided by financing activities	110.3	39.7	41.5
Effect of currency exchange rate changes on cash and cash equivalents	5.0	(5.6)	(1.6)
Increase in cash and cash equivalents	288.6	32.6	122.7
Cash and cash equivalents, beginning of period	1,048.3	1,015.7	893.0
Cash and cash equivalents, end of period	\$1,336.9	\$1,048.3	\$1,015.7

Net cash provided by operating activities in 2012 was \$453.6 million, compared with \$219.4 million in the prior year. The change in cash provided by operating activities is primarily due to lower pension plan contributions and reduced working capital requirements.

Net cash used for investing activities primarily includes capital expenditures and the net cash paid for businesses acquired. Our capital expenditures include investments in new capacity, improved productivity and maintenance of our manufacturing and office facilities. We expect to fund our capital expenditures from net cash provided by operating activities.

Net cash provided by financing activities in 2012 was \$110.3 million, compared with \$39.7 million in the prior year. The change in cash provided by financing activities is primarily due to the increase in proceeds from the exercise of stock options and tax benefits from stock-based compensation.

Included in net cash provided by operating activities are accelerated defined benefit pension plan contributions of \$83.4 million, \$180.0 million and \$0.0 million, Chapter 11 expenses paid of \$15.5 million, \$20.6 million and \$28.6 million, and expenditures for asbestos-related environmental remediation of \$7.2 million, \$2.4 million and \$2.8 million for 2012, 2011 and 2010, respectively. These cash flows totaled \$106.1 million, \$203.0 million and \$31.4 million for 2012, 2011 and 2010, respectively. We do not include these cash flows when evaluating the performance of our businesses.

#### Debt and Other Contractual Obligations

Total debt outstanding at December 31, 2012, was \$1,070.1 million, including \$446.8 million of accrued interest on pre-petition debt. As a result of the Chapter 11 filing, we are now in default on \$526.5 million of pre-



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petition debt, which, together with accrued interest thereon, has been included in "liabilities subject to compromise" as of December 31, 2012. The automatic stay provided under the U.S. Bankruptcy Code prevents our lenders from taking any action to collect the principal amounts as well as related accrued interest. However, we will continue to accrue and report interest in accordance with the Joint Plan on such debt during the Chapter 11 proceedings unless further developments lead us to conclude that it is probable that such interest will be compromised.

Set forth below are our contractual obligations as of December 31, 2012:

Contractual Obligations(1) (In millions)	Payments Due by Period			
	Total	Less than 1 Year	1-3 Years	Thereafter
Operating commitments(2)	\$34.2	\$23.3	\$10.9	\$—
Debt	96.8	83.4	13.4	—
Capital leases	2.9	0.8	2.1	—
Operating leases	72.4	22.1	32.9	17.4
Pension funding requirements per ERISA(3)	20.1	—	12.8	7.3
Pension funding requirements for non-U.S. pension plans(4)	68.9	13.0	41.2	14.7
Total Contractual Obligations	\$295.3	\$142.6	\$113.3	\$39.4

(1) Excludes liabilities subject to compromise, as we are not able to determine when these amounts will ultimately be settled. We expect that a large portion of these liabilities will be settled when we emerge from Chapter 11.

(2) Amounts do not include open purchase commitments, which are routine in nature and normally settle within 90 days, or obligations to employees under annual or long-term incentive programs.

(3) Based on the U.S. qualified pension plans' status as of December 31, 2012, minimum funding requirements under ERISA have been estimated for the next five years. Amounts in subsequent years or additional payments have not yet been included.

(4) Based on the non-U.S. pension plans' status as of December 31, 2012, funding requirements have been estimated for the next five years. Amounts in subsequent years have not yet been determined.

See Note 12 to the Consolidated Financial Statements for a discussion of Financial Assurances.

#### Employee Benefit Plans

See Note 10 to the Consolidated Financial Statements for further discussion of Pension Plans and Other Postretirement Benefit Plans.

#### Defined Contribution Retirement Plan

We sponsor a defined contribution retirement plan for our employees in the United States. This plan is qualified under section 401(k) of the U.S. tax code. Currently, we contribute an amount equal to 100% of employee contributions, up to 6% of an individual employee's salary or wages. Our costs related to this benefit plan were \$12.6 million, \$12.3 million and \$12.4 million for the years ended December 31, 2012, 2011 and 2010, respectively.

#### Defined Benefit Pension Plans

We sponsor defined benefit pension plans for our employees in the U.S., Canada, the U.K., Germany and a number of other countries, and fund government-sponsored programs in other countries where we operate. Certain of our defined benefit pension plans are advance-funded and others are pay-as-you-go. The advance-funded plans are administered by trustees who direct the management of plan assets and arrange to have obligations paid when due. Our most significant advance-funded plans cover current and former salaried employees in the U.S. and U.K. and employees covered by collective bargaining agreements at certain of our U.S. facilities. Our U.S. advance-funded plans are qualified under the U.S. tax code.

The following table presents the funded status of our fully-funded, underfunded, and unfunded pension plans:

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Funded Status of Pension Plans (In millions)	Fully-Funded Pension Plans(1)			Underfunded Pension Plans(1)			Unfunded Pension Plans(2)		
	2012	2011	2010	2012	2011	2010	2012	2011	2010
Projected benefit obligation	\$235.4	\$224.0	\$196.1	\$1,355.8	\$1,217.3	\$1,137.4	\$363.4	\$315.9	\$282.5
Fair value of plan assets	269.2	261.1	231.7	1,176.1	989.3	753.4	—	—	—
Funded status (PBO basis)	\$33.8	\$37.1	\$35.6	\$(179.7)	\$(228.0)	\$(384.0)	\$(363.4)	\$(315.9)	\$(282.5)
Benefits paid	\$(11.8)	\$(10.2)	\$(10.9)	\$(64.3)	\$(62.1)	\$(62.7)	\$(13.4)	\$(14.4)	\$(12.6)

(1) Plans intended to be advance-funded.

(2) Plans intended to be pay-as-you-go.

Fully-funded plans include several advance-funded plans where the fair value of the plan assets exceeds the projected benefit obligation, or PBO. This group of plans was overfunded by \$33.8 million as of December 31, 2012, and the overfunded status is reflected as "overfunded defined benefit pension plans" in the Consolidated Balance Sheets.

Underfunded plans include a group of advance-funded plans that are underfunded on a PBO basis by a total of \$179.7 million as of December 31, 2012. Additionally, we have several plans that are funded on a pay-as-you-go basis, and therefore, the entire PBO of \$363.4 million at December 31, 2012, is unfunded. The combined balance of the underfunded and unfunded plans was \$543.1 million as of December 31, 2012, and is presented as a liability on the Consolidated Balance Sheets as follows: \$14.0 million in "other current liabilities"; \$400.6 million included in "underfunded and unfunded defined benefit pension plans"; and \$128.5 million in "liabilities subject to compromise." On a quarterly basis, we analyze pension assets and pension liabilities along with the resulting funded status and update our estimate of these measures. Funded status is adjusted for contributions, benefit payments, actual return on assets, current discount rates and other identifiable and material actuarial changes.

At the December 31, 2012, measurement date for the U.S. advance-funded plans, the PBO was approximately \$1,293 million as measured under U.S. GAAP. The PBO is measured as the present value (using a 3.75% discount rate as of December 31, 2012) of vested and non-vested benefits earned from employee service to date, based upon current services and estimated future pay increases for active employees. Of the participants in the U.S. advance-funded plans, approximately 84% are retired or former employees or employees of our former businesses, which skews the payout pattern to the nearer term. Assets available to fund the PBO for the U.S. advance-funded plans at December 31, 2012, were approximately \$1,132 million, or approximately \$161 million less than the measured obligation.

The following table presents the components of cash contributions for the advance-funded and pay-as-you-go plans:

Cash Contributions to Defined Benefit Pension Plans (In millions)	2012	2011	2010
U.S. advance-funded plans	\$109.3	\$245.8	\$45.9
U.S. pay-as-you-go plans	5.6	5.6	5.5
Non-U.S. advance-funded plans	4.2	4.8	4.8
Non-U.S. pay-as-you-go plans	7.7	8.9	7.1
Total Cash Contributions	\$126.8	\$265.1	\$63.3

Based on the U.S. advance-funded plans' status as of December 31, 2012, there are no minimum required payments under ERISA for 2013. On February 14, 2013, we filed a motion with the Bankruptcy Court to make an accelerated contribution of up to an additional \$50 million in 2013.

Contributions to non-U.S. pension plans are not subject to bankruptcy court approval and we intend to fund such plans based upon applicable legal requirements and actuarial and trustee recommendations. We contributed \$11.9 million to these plans in 2012.

#### Postretirement Benefits Other Than Pensions

We provide certain health care and life insurance benefits for retired employees in the U.S., a large majority of whom are retirees of divested businesses. These plans are unfunded, and we pay the costs of benefits under these plans as

they are incurred. Our share of the net cost of benefits under this program was \$4.6 million in 2012, compared with \$3.6 million in 2011. We received Medicare subsidy payments of \$3.3 million and \$1.9 million in

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2012 and 2011, respectively. Our recorded liability for postretirement benefits of \$63.9 million at December 31, 2012, is stated at net present value discounted at 3.50%. Under our proposed Joint Plan, these benefits would continue.

### Tax Matters

After emergence from Chapter 11 under our proposed Joint Plan, or another plan of reorganization that is ultimately confirmed, we expect to have substantial future tax deductions. Upon emergence under the Joint Plan, we expect to generate tax deductions of approximately \$1.6 billion, primarily relating to asbestos, environmental and other payments made at emergence and thereafter.

In 2012, we maintained a level of U.S. federal taxable income to secure approximately \$7 million in tax incentives. As part of this planning, we paid federal cash taxes of \$29.5 million. We were not required to pay U.S. federal income taxes in cash in 2011 and 2010.

See Note 9 to the Consolidated Financial Statements and "Income Taxes" above for further discussion of our tax accounting and tax contingencies.

### Other Contingencies

See Note 12 to the Consolidated Financial Statements for a discussion of our other contingent matters.

### Inflation

We recognize that inflationary pressures may have an adverse effect on the company through higher asset replacement costs and higher raw materials and other operating costs. We try to minimize these impacts through effective control of operating expenses and productivity improvements as well as price increases to customers.

We estimate that the cost of replacing our property and equipment today is greater than its historical cost.

Accordingly, our depreciation expense would be greater if the expense were stated on a current cost basis.

### Highly Inflationary Economy

Effective January 1, 2010, we began to account for Venezuela as a highly inflationary economy. As a result, the functional currency of our Venezuelan subsidiary became the U.S. dollar; therefore, all translation adjustments are reflected in net income in the Consolidated Statements of Operations. The exchange rate of 4.3 was used to remeasure our financial statements from bolivars to U.S. dollars upon Venezuela's designation as a highly inflationary economy. As of December 31, 2012, there had been no devaluations in the official exchange rate of bolivars to U.S. dollars since Venezuela was designated as a highly inflationary economy; therefore, we continued to remeasure the financial statements at an exchange rate of 4.3. At December 31, 2012, our bolivar-denominated net asset position was \$40.8 million. Bolivar-denominated sales were approximately 1% of total 2012 sales.

On February 8, 2013, the Venezuelan government announced that, effective February 13, 2013, the official exchange rate of the bolivar to the U.S. dollar would devalue from 4.3 to 6.3. As a result of this currency devaluation, we expect to incur a currency transaction loss in the amount of approximately \$13 million to \$14 million in the 2013 first quarter, including approximately \$2 million to \$3 million which will be included in Adjusted EBIT.

### Critical Accounting Estimates

The preparation of financial statements in conformity with U.S. GAAP requires that we make estimates and assumptions affecting the assets and liabilities reported at the date of the Consolidated Financial Statements, and the revenues and expenses reported for the periods presented. We believe that our accounting estimates are appropriate and the related balances are reasonable; however, actual amounts could differ from the original estimates, requiring adjustments in future periods. Changes in estimates are recorded in the period in which the change is identified. Our accounting policies are described in Note 1 to the Consolidated Financial Statements. Critical accounting estimates are described in this section.

An accounting estimate is considered critical if the estimate requires management to make assumptions and judgments about matters that were highly uncertain at the time the estimate was made, if different estimates reasonably could have been used, or if changes in the estimate are reasonably likely to occur from period to period that could have a material impact on our financial condition or results of operations. As part of our quarterly disclosure controls and procedures, management has discussed the development, selection and disclosure of the

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critical accounting estimates with the Audit Committee of the Board of Directors. The accuracy of these and other estimates may be materially affected by the uncertainties arising under our Chapter 11 proceeding.

Contingent Liabilities

We have recorded a liability for the resolution of contingencies related to asbestos lawsuits, environmental remediation, income taxes and litigation. We record a liability if we have determined that a loss is probable and we are able to reasonably estimate the amount of the loss or have another reasonable basis for recording a liability. We have determined that each of the contingencies discussed below involves an accounting judgment that is material to our Consolidated Financial Statements.

Asbestos-related Lawsuits

We are a defendant in property damage and personal injury lawsuits relating to previously sold asbestos-containing products. See Notes 2 and 3 to the Consolidated Financial Statements for a discussion of the background and status of the asbestos-related lawsuits, and how we are attempting to resolve them as part of our Chapter 11 proceeding. We have recorded a liability for our asbestos-related obligations as discussed below.

Our liability for asbestos-related matters has had a material impact on our financial condition and results of operations, and future changes in such liability, if required, may lead to material adjustments to the Consolidated Financial Statements. We expect the ultimate resolution cost of this obligation to have a material impact on our liquidity and capital resources.

As discussed in Note 2 to the Consolidated Financial Statements, the Joint Plan contemplates that two asbestos trusts would be established under Section 524(g) of the U.S. Bankruptcy Code. All asbestos-related personal injury claims would be channeled for resolution to one asbestos trust and all asbestos-related property damage claims would be channeled to another asbestos trust.

The recorded asbestos-related liability as of December 31, 2012, and December 31, 2011, was \$2,065.0 million and \$1,700.0 million respectively, and is included in "liabilities subject to compromise" in the accompanying Consolidated Balance Sheets. We increased the asbestos-related liability by \$365.0 million in the 2012 fourth quarter to reflect an updated estimate of the value of the consideration payable to the PI Trust and the PD Trust (the "Trusts") under the Joint Plan, assuming emergence from bankruptcy at the end of 2013. As discussed in Note 2, we reached an agreement in October 2012 to cash settle the warrant to be issued to the PI Trust at emergence. As a result of this settlement, as well as an updated valuation estimate of the deferred payment obligations and other consideration payable to the Trusts, we concluded that the previously recorded liability of \$1,700.0 million was no longer in the reasonable range of possible valuations of the consideration payable to the Trusts.

The recorded amounts of the asbestos-related liability at December 31, 2012, and December 31, 2011, represent our best estimate of the value of the consideration that will be provided to the PI Trust and the PD Trust at emergence under the terms of the Joint Plan based on the information available at these dates.

The components of the consideration payable to the Trusts under the Joint Plan will be accounted for as follows:

The warrant to acquire 10 million shares of the Company's common stock for \$17.00 per share, which will be recorded at fair value on the effective date of the Joint Plan. Under the agreement to cash settle the warrant, the warrant will have a value between \$375 million and \$490 million. Based on the current trading range of Company common stock and other valuation factors, at December 31, 2012, we estimate the value of the warrant at emergence will be the maximum value of \$490 million.

The deferred payment obligation of \$110 million per year for five years beginning January 2, 2019, and of \$100 million per year for ten years beginning January 2, 2024, which will be recorded at fair value on the effective date of the Joint Plan. At December 31, 2012, we estimate the value of the deferred payment obligation at emergence will be \$547 million, which assumes a discount rate of approximately 10%. The value of the deferred payment obligation is affected by (i) interest rates; (ii) the Company's credit standing and the payment period of the deferred payments; (iii) restrictive covenants and terms of the Company's other credit facilities; (iv) assessment of the risk of a default, which if default were to occur would require us to issue shares of Company common stock; and (v) the subordination provisions of the deferred payment agreement.





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The cash payable by Grace to fund the PI and PD Trusts as discussed in Note 2, which will be recorded at fair value on the effective date of the Joint Plan. We estimate the fair value to be \$528 million at December 31, 2012. As discussed in Note 2, proceeds with respect to all of Grace's insurance policies that provide coverage for asbestos-related claims would be transferred to the PI Trust under the Joint Plan. The recorded asbestos-related insurance receivable and related liability is \$500.0 million. The ultimate amount of insurance recovered on such claims will depend on a number of factors that will only be determined at the time claims are paid including: the nature of the claim, the relevant exposure years, the timing of payment, the solvency of insurers and the legal status of policy rights. Accordingly, our estimate of insurance recovery under the Prior Plan may differ materially from actual amounts that ultimately may be received by the PI Trust under the Joint Plan; however, we estimate that the recorded amount of \$500.0 million is within the reasonable range of possible valuations of these policies at emergence. We periodically evaluate the recorded amount of the asbestos-related liability and may further adjust the liability prior to the effective date of the Joint Plan if we determine that the currently recorded amount no longer represents a reasonable estimate of the value of the consideration payable to the Trusts under the Joint Plan. The ultimate cost of settling the asbestos-related liability will be based on the value of the consideration transferred to the Trusts at emergence and may vary from the current estimate.

We provided proforma and prospective financial information for the Joint Plan in the exhibits to the Joint Plan in compliance with the requirements of the U.S. Bankruptcy Code. That proforma and prospective financial information is not included in or incorporated into this Report. We also provided updated pro forma information on February 25, 2011, and February 24, 2012, and we expect to provide further updated pro forma information on or about February 27, 2013.

The fair value of the warrants for tax purposes would be treated as a deductible expense in the year of settlement. The deferred payments would be deductible at the time of each payment. Due to the payment of these and other deductible bankruptcy claims, we anticipate generating significant future tax deductions beginning in the year of emergence. See Note 9 to the Consolidated Financial Statements for a discussion of future tax deductions that we may generate in connection with emergence from Chapter 11.

**Environmental Remediation**

We are obligated under applicable law to remediate certain properties related to our business or former businesses. At some sites we finance all or a portion of remediation conducted by third parties and at others, we perform the required remediation ourselves. Our environmental remediation obligation has a significant impact on our Consolidated Financial Statements. See disclosure in this Report in Item 1 (Business—Environment, Health and Safety Matters) and in Note 12 to the Consolidated Financial Statements for a discussion of our environmental remediation liabilities.

At sites where third parties conduct remediation, we estimate our obligations from information available to us, including actual costs incurred, expected future costs and time to completion. At sites where we conduct remediation, we work with regulatory authorities to define compliance requirements and then estimate the cost required to meet those requirements. We base our estimates on our historical knowledge and engineering assessments specific to conditions at each site, and we update our estimates as necessary.

Our estimates can fluctuate significantly due to the extended duration of some remediation projects. The accuracy of our estimates is dependent on the validity of assumptions regarding such matters as labor rates, indirect costs and capital costs (such as building materials), which are difficult to forecast over extended periods. We cannot estimate the impact on our Consolidated Financial Statements of using other reasonably possible assumptions because we primarily rely on the assumptions and estimates of the applicable regulatory authorities. Future changes in estimates, if required, will more than likely lead to material adjustments to our Consolidated Financial Statements, and we expect the ultimate resolution of these obligations to have a material impact on our liquidity and capital resources.

Grace operated a vermiculite mine in Libby, Montana, until 1990. Some of the vermiculite ore that was mined at the Libby mine contained naturally occurring asbestos. Grace is working in cooperation with EPA to investigate the Libby vermiculite mine and the surrounding bodies of water and forest lands. We do not have sufficient information to estimate the cost of any required remediation of the Libby mine. During 2010, EPA began reinvestigating up to 105 facilities where vermiculite concentrate from the Libby mine was processed. We are cooperating with EPA on this reinvestigation. During the 2011 fourth quarter, EPA requested that we conduct



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additional remediation at seven of these facilities (now eight, including an additional site added by EPA during the 2012 fourth quarter). It is probable that EPA will request additional remediation at other facilities. We do not have sufficient information to identify either the sites that might require additional remediation or estimate the cost of any additional remediation. We will evaluate our estimated remediation liability for other sites as we receive additional information from EPA. Our estimates of our environmental remediation obligations do not include the cost to remediate the Libby vermiculite mine or costs related to any additional EPA claims, whether resulting from EPA's reinvestigation of vermiculite facilities or otherwise, which may be material but are not currently estimable. Due to these vermiculite-related matters, it is probable that our ultimate liability for environmental remediation will exceed our current estimates by material amounts.

**Litigation**

We are subject to legal proceedings and claims arising out of the normal course of business.

To estimate the cost to resolve our legal obligations, we review the facts of each matter to determine the merits of the case and the corresponding probability of a loss. If we determine that a loss is probable, we determine if there is sufficient information to make a reasonable estimate of the loss amount. Our estimates regarding the outcome of our legal proceedings and claims involve substantial uncertainties that could cause our actual losses to differ materially from our estimates. In estimating the likely outcome of a legal proceeding, we consider the nature of the specific claim (or unasserted claim), our experience with similar claims, the jurisdiction in which the proceeding is filed, court rulings, the status of any settlement negotiations, the likelihood of resolution through settlement or alternative dispute resolution, the proceeding's current status and other relevant information and events. We adjust our recorded liability for litigation contingencies as necessary to reflect our current evaluation of these and other factors.

**Goodwill**

We review our goodwill for impairment on an annual basis at October 31 and whenever events or a change in circumstances indicate that the carrying amount may not be fully recoverable. We test our goodwill for impairment at the reporting unit level which is one level below an operating segment. Our Catalysts Technologies operating segment has two reporting units for goodwill impairment testing referred to as Refining Technologies and Specialty Catalysts. Our Materials Technologies operating segment has three reporting units for goodwill impairment testing referred to as Engineered Materials, Packaging, and Discovery Sciences. Our Construction Products operating segment has three reporting units referred to as GCP Americas, GCP Europe and GCP Asia Pacific.

We performed a quantitative analysis for all of our reporting units as of October 31, 2012, and concluded that none of our reporting units were impaired. However, due to the continuing economic uncertainty in the region, we have concluded that it is reasonably possible that our GCP Europe reporting unit, which has recorded goodwill of approximately \$60 million, may become impaired in a future period. We estimated the fair value of our GCP Europe reporting unit utilizing the income approach, and estimated the discounted future cash flows for GCP Europe. Key assumptions that we use in the income approach are: (a) expected future cash flows; (b) growth assumptions based on projected revenues and business plans; (c) discount rates based on analysis of peer companies; and (d) country-weighted weighted average cost of capital, which accounts for risks associated with different countries in which GCP Europe operates.

The fair value of this reporting segment exceeded its carrying value by more than 20% as of our testing date. While the fair value of this reporting unit exceeded the carrying value at the testing date and management does not believe that impairment is probable, the business must continue to improve its performance in future periods, consistent with our expectations, to sustain the goodwill carrying value.

**Pension and Other Postretirement Benefits Expenses and Liabilities**

We sponsor defined benefit pension plans for our employees in the United States and a number of other countries, including Canada, the United Kingdom and Germany, and fund government-sponsored programs in other countries where we operate. See Note 10 to the Consolidated Financial Statements for a detailed discussion of our pension plans and other postretirement benefit plans.

In order to estimate our pension and other postretirement benefits expenses and liabilities we evaluate the range of possible assumptions to be used in the calculation of pension and other postretirement benefits expenses and liabilities. We select the assumptions that we believe to be most indicative of factors such as participant

demographics, past experiences and market indices, and provide the assumptions to independent actuaries. These assumptions are updated annually and primarily include factors such as discount rates, health care cost trend rates,

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expected return on plan assets, mortality rates, retirement rates, and rate of compensation increase. The independent actuaries review our assumptions for reasonableness, and use the assumptions to calculate our estimated liability and future pension expense. We review the actuarial reports for reasonableness and adjust our expenses, assets and liabilities to reflect the amounts calculated in the actuarial reports.

On a quarterly basis, we analyze the rollforward of pension assets and pension liabilities along with the resulting funded status to ensure that the Consolidated Balance Sheets reflect an updated estimate of these measures each period. Funded status is adjusted for actual contributions, benefit payments, return on assets and other identifiable and material actuarial changes. Discount rates are also evaluated for reasonableness each period.

The two key assumptions used in determining our pension benefit obligations and pension expense are the discount rate and expected return on plan assets. Our most significant pension assets and pension liabilities relate to U.S. pension plans.

The assumed discount rate for pension plans reflects the market rates for high-quality corporate bonds currently available and is subject to change based on changes in overall market interest rates. For the U.S. pension plans, the assumed discount rate was selected in consultation with our independent actuaries, based on a yield curve constructed from a portfolio of high quality bonds for which the timing and amount of cash outflows approximate the estimated payouts of the plan.

We selected the expected return on plan assets for the U.S. qualified pension plans for 2012 in consultation with our independent actuaries, using an expected return model. The model determines the weighted average return for an investment portfolio based on the target asset allocation and expected future returns for each asset class, which were developed using a building block approach based on observable inflation, available interest rate information, current market characteristics, and historical results.

The following table reflects the sensitivity of 2013 pre-tax expense and our year-end projected benefit obligation, or PBO, to a change in the discount rate and expected rate of return on plan assets assumptions for the U.S. pension plans:

Change in Assumption (In millions)	Effect on 2013 Pre-Tax Pension Expense	Effect on December 31, 2012 PBO
25 basis point decrease in discount rate	\$ 1	\$38
25 basis point increase in discount rate	(1	) (37
25 basis point decrease in expected return on plan assets	3	—
25 basis point increase in expected return on plan assets	(3	) —

**Income Taxes**

We are a global enterprise with operations in more than 40 countries. This global reach results in a complexity of tax regulations, which require assessments of applicable tax law and judgments in estimating our ultimate income tax liability. See Note 9 to the Consolidated Financial Statements for a detailed discussion of our estimates used in accounting for income taxes and income tax contingencies.

We recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based on the technical merits of the position. We measure tax benefits in our financial statements from such a position as the largest benefit that has a greater than fifty percent likelihood of being realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards.

We record a liability for income tax contingencies when it is more likely than not that a tax position we have taken will not be sustained upon audit. We evaluate such likelihood based on relevant facts and tax law. We adjust our recorded liability for income tax matters due to changes in circumstances or new uncertainties, such as amendments to existing tax law. Our ultimate tax liability depends upon many factors, including negotiations with taxing authorities in the jurisdictions in which we operate, outcomes of tax litigation, and resolution of disputes arising from federal, state, and foreign tax audits. Due to the varying tax laws in each jurisdiction, senior management, with the assistance of local tax advisors as necessary, assesses individual matters in each jurisdiction on a case-by-case basis. We research

and evaluate our income tax positions, including why we believe they are compliant with income tax regulations, and these positions are documented internally.

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Deferred income taxes result from the differences between the financial and tax basis of our assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. If it is more likely than not that all or a portion of deferred tax assets will not be realized, a valuation allowance is provided for such deferred tax assets. As of December 31, 2012, we have recorded net deferred tax assets before valuation allowances of \$1,027.7 million and a valuation allowance on net deferred tax assets of \$40.8 million, of which \$40.3 million is related to state deferred tax assets and \$0.5 million to foreign deferred tax assets. The net deferred tax assets were \$986.9 million.

We considered forecasted earnings, future taxable income and the mix of earnings in the jurisdictions in which we operate, as well as prudent and feasible tax planning strategies in assessing the need for a valuation allowance. We concluded that a valuation allowance is not required with respect to U.S. federal deferred tax assets of \$922.1 million because we believe we will have sufficient U.S. taxable income after emergence from bankruptcy to realize all future available tax deductions prior to their expiration. If federal taxable income is lower than expected and we were to determine that we would be unable to realize a portion of our net federal deferred tax assets in the future, for which there is currently no valuation allowance, an adjustment to the net deferred tax assets would be expensed to earnings in the period such determination was made.

We also considered the need for a valuation allowance on state deferred tax assets. In determining a need for a valuation allowance, we have considered both positive and negative evidence, giving more weight to objective evidence, to determine whether enough income would be generated to utilize the future deductions associated with the deferred tax assets. Our financial performance in the current year and recent past has provided more positive evidence than negative evidence to reasonably conclude that we will generate enough state taxable income to utilize a portion of the deductions associated with state deferred tax assets. We have considered forecasted earnings, recent past and future taxable income and allowable carryforward periods of net operating losses in each state taxing jurisdiction in which we operate. We believe that we will generate sufficient domestic income in most state and local jurisdictions to utilize future deductions.

In the 2012 fourth quarter, we determined that it is more likely than not that a substantial portion of our state net operating losses will be used before their expiration. We recorded a \$44.0 million reduction in our valuation allowance on our state deferred tax assets. The valuation allowance was also reduced by, to a lesser extent, the utilization and expiration of state net operating losses in the current year and the reduction of net operating losses resulting from prior year adjustments made to taxable income by the Internal Revenue Service. The realization of the state net operating losses is dependent on the generation of sufficient taxable income in the appropriate tax jurisdictions. Although realization is not assured, we believe it is more likely than not that the remaining deferred tax assets will be realized. There are certain states where a portion of the deductions will not be utilized and for which a valuation allowance remains in place. If state taxable income is higher than expected and we were to determine that we would be able to realize a portion of our net state deferred tax assets, for which there is currently a valuation allowance, an adjustment to the net deferred tax assets would be a benefit to earnings in the period such determination was made.

**Recent Accounting Pronouncements**

See Note 1 of Consolidated Financial Statements for a discussion of recent accounting pronouncements and their effect on us.

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## W. R. GRACE &amp; CO. AND SUBSIDIARIES

## FINANCIAL STATEMENT SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS AND RESERVES

(In millions)

For the Year Ended December 31, 2012

Description	Balance at beginning of period	Additions charged to costs and expenses	Deductions	Other, net(1)	Balance at end of period
Valuation and qualifying accounts deducted from assets:					
Allowances for notes and accounts receivable	\$9.8	\$1.9	\$(4.8)	) \$—	\$6.9
Valuation allowance for deferred tax assets(2)	100.8	—	(60.0)	) —	40.8
Reserves:					
Reserves for asbestos-related litigation	1,700.0	365.0	—	—	2,065.0
Reserves for environmental remediation	149.9	3.6	(13.0)	) —	140.5
Reserves for retained obligations of divested businesses	33.7	0.7	(0.2)	) —	34.2

For the Year Ended December 31, 2011

Description	Balance at beginning of period	Additions charged to costs and expenses	Deductions	Other, net(1)	Balance at end of period
Valuation and qualifying accounts deducted from assets:					
Allowances for notes and accounts receivable	\$8.7	\$2.9	\$(2.0)	) \$0.2	\$9.8
Valuation allowance for deferred tax assets(2)	104.6	—	(3.8)	) —	100.8
Reserves:					
Reserves for asbestos-related litigation	1,700.0	—	—	—	1,700.0
Reserves for environmental remediation	144.0	17.8	(11.8)	) (0.1)	149.9
Reserves for retained obligations of divested businesses	33.9	0.4	(0.6)	) —	33.7

For the Year Ended December 31, 2010

Description	Balance at beginning of period	Additions charged to costs and expenses	Deductions	Other, net(1)	Balance at end of period
Valuation and qualifying accounts deducted from assets:					
Allowances for notes and accounts receivable	\$9.6	\$2.1	\$(3.1)	) \$0.1	\$8.7
Valuation allowance for deferred tax assets(2)	107.8	—	(3.2)	) —	104.6
Reserves:					
Reserves for asbestos-related litigation	1,700.0	—	—	—	1,700.0
Reserves for environmental remediation	148.4	4.5	(8.0)	) (0.9)	144.0
Reserves for retained obligations of divested businesses	36.2	—	(2.3)	) —	33.9



(1) Various miscellaneous adjustments against reserves and effects of currency translation.

The reduction in the valuation allowance during 2012 related in part to a \$44.0 million release of the valuation allowance as Grace determined that it is more likely than not that a substantial portion of its state net operating

(2) losses will be used before their expiration; the remainder of the release related to the utilization and expiration of state net operating losses in the current year, and the reduction of net operating losses resulting from prior-year adjustments made to income by the Internal Revenue Service. The reductions in 2011 and 2010 primarily related to the utilization and expiration of state net operating losses.

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## W. R. GRACE &amp; CO. AND SUBSIDIARIES

COMPUTATION OF RATIO OF EARNINGS TO FIXED CHARGES AND  
COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS(1)

(In millions, except ratios)

(Unaudited)

	Year Ended December 31,				
	2012	2011	2010	2009	2008
Net income attributable to W. R. Grace & Co. shareholders	\$94.1	\$269.4	\$207.1	\$71.2	\$121.5
Provision for (benefit from) income taxes	(37.3 )	114.7	32.5	11.5	4.3
Equity in earnings of unconsolidated affiliate	(18.5 )	(15.2 )	(17.8 )	(1.7 )	(0.6 )
Interest expense and related financing costs, including amortization of capitalized interest	46.8	43.6	41.7	38.8	54.9
Estimated amount of rental expense deemed to represent the interest factor	7.5	6.9	6.9	6.7	7.9
Income as adjusted	\$92.6	419.4	270.4	126.5	188.0
Combined fixed charges and preferred stock dividends:					
Interest expense and related financing costs, including capitalized interest	\$46.9	43.6	41.3	38.9	54.5
Estimated amount of rental expense deemed to represent the interest factor	7.5	6.9	6.9	6.7	7.9
Fixed charges	54.4	50.5	48.2	45.6	62.4
Combined fixed charges and preferred stock dividends	\$54.4	50.5	48.2	45.6	62.4
Ratio of earnings to fixed charges	1.70	8.31	5.61	2.77	3.01
Ratio of earnings to fixed charges and preferred stock dividends	1.70	8.31	5.61	2.77	3.01

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(1) Grace did not have preferred stock from 2008 through 2012.

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EXHIBIT 31.(i).1

CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002

I, A. E. Festa, certify that:

1. I have reviewed this annual report on Form 10-K of W. R. Grace & Co.;

Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a  
2. material fact necessary to make the statements made, in light of the circumstances under which such statements  
were made, not misleading with respect to the period covered by this report;

Based on my knowledge, the financial statements, and other financial information included in this report, fairly  
3. present in all material respects the financial condition, results of operations and cash flows of the registrant as of,  
and for, the periods presented in this report;

The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls  
4. and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial  
reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed  
under our supervision, to ensure that material information relating to the registrant, including its consolidated  
(a) subsidiaries, is made known to us by others within those entities, particularly during the period in which this report  
is being prepared;

designed such internal control over financial reporting, or caused such internal control over financial reporting to  
be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting  
(b) and the preparation of financial statements for external purposes in accordance with generally accepted accounting  
principles;

evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our  
(c) conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered  
by this report based on such evaluation; and

disclosed in this report any change in the registrant's internal control over financial reporting that occurred during  
the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that  
(d) has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial  
reporting; and

The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal  
5. control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of  
directors (or persons performing the equivalent functions):

all significant deficiencies and material weaknesses in the design or operation of internal control over financial  
(a) reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and  
report financial information; and

(b) any fraud, whether or not material, that involves management or other employees who have a significant role in the  
registrant's internal control over financial reporting.

Date: February 27, 2013

/s/ A. E. FESTA

A. E. Festa  
Chief Executive Officer

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EXHIBIT 31.(i).2

CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF  
THE SARBANES-OXLEY ACT OF 2002

I, Hudson La Force III, certify that:

1. I have reviewed this annual report on Form 10-K of W. R. Grace & Co.;

Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a  
2. material fact necessary to make the statements made, in light of the circumstances under which such statements  
were made, not misleading with respect to the period covered by this report;

Based on my knowledge, the financial statements, and other financial information included in this report, fairly  
3. present in all material respects the financial condition, results of operations and cash flows of the registrant as of,  
and for, the periods presented in this report;

The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls  
4. and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial  
reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed  
under our supervision, to ensure that material information relating to the registrant, including its consolidated  
(a) subsidiaries, is made known to us by others within those entities, particularly during the period in which this report  
is being prepared;

designed such internal control over financial reporting, or caused such internal control over financial reporting to  
be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting  
(b) and the preparation of financial statements for external purposes in accordance with generally accepted accounting  
principles;

evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our  
(c) conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered  
by this report based on such evaluation; and

disclosed in this report any change in the registrant's internal control over financial reporting that occurred during  
(d) the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that  
has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial  
reporting; and

The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal  
5. control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of  
directors (or persons performing the equivalent functions):

all significant deficiencies and material weaknesses in the design or operation of internal control over financial  
(a) reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and  
report financial information; and

(b) any fraud, whether or not material, that involves management or other employees who have a significant role in the  
registrant's internal control over financial reporting.

Date: February 27, 2013

/s/ HUDSON LA FORCE III

Hudson La Force III  
Senior Vice President and Chief Financial Officer

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EXHIBIT 32

CERTIFICATION UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350), the undersigned certifies that (1) this Annual Report of W. R. Grace & Co. (the "Company") on Form 10-K for the period ended December 31, 2012, as filed with the Securities and Exchange Commission on the date hereof (this "Report"), fully complies with the requirements of Sections 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and (2) the information contained in this Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ A. E. FESTA

Chief Executive Officer

/s/ HUDSON LA FORCE III

Senior Vice President and Chief Financial Officer

Date: February 27, 2013

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.