PPG INDUSTRIES INC Form 10-K February 18, 2010 Table of Contents

# **UNITED STATES**

# SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

# **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, 2009

Commission File Number 1-1687

# **PPG INDUSTRIES, INC.**

(Exact name of registrant as specified in its charter)

Pennsylvania (State or other jurisdiction of incorporation or organization)

One PPG Place, Pittsburgh, Pennsylvania (Address of principal executive offices)

Registrant s telephone number, including area code:

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

Name of each exchange on

which registered

Title of each class

\_\_\_\_\_

Common Stock Par Value \$1.66/3 New York Stock Exchange

Securities Registered Pursuant to Section 12(g) of the Act: None

15272 (**Zip code**) 412-434-3131

25-0730780

(I.R.S. Employer

Identification No.)

Indicate by check mark if the Registrant is a well-known seasoned issuer as defined in Rule 405 of the Securities Act. YES x NO "

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES "NO x

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 x NO "

Indicate by checkmark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Date File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (\$232.405 of this chapter) during the preceeding 12 months (or for such shorter period that the registrant was required to submit and post such files). YES x NO "

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

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. (Check one):

Large accelerated filer x Non-accelerated filer " (Do not check if a smaller reporting company)

Indicate by check mark whether the Registrant is a shell company (as defined by Rule 12b-2 of the Act). YES "NO x

Document

The aggregate market value of common stock held by non-affiliates as of June 30, 2009, was \$7,224 million.

As of January 31, 2010, 165,857,383 shares of the Registrant s common stock, with a par value of \$1.66/3 per share, were outstanding. As of that date, the aggregate market value of common stock held by non-affiliates was \$9,716 million.

#### DOCUMENTS INCORPORATED BY REFERENCE

Incorporated By Reference In Part No. Portions of PPG Industries, Inc. Proxy Statement for its 2010 Annual Meeting of Shareholders

## **PPG INDUSTRIES, INC.**

### AND CONSOLIDATED SUBSIDIARIES

As used in this report, the terms PPG, Company, Registrant, we, us and our refer to PPG Industries, Inc., and its subsidiaries, taken as a w unless the context indicates otherwise.

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## Note on Incorporation by Reference

Throughout this report, various information and data are incorporated by reference from the Company s 2009 Annual Report (hereinafter referred to as the Annual Report ). Any reference in this report to disclosures in the Annual Report shall constitute incorporation by reference only of that specific information and data into this Form 10-K.

# Part I

#### Item 1. Business

PPG Industries, Inc., incorporated in Pennsylvania in 1883, is comprised of six reportable business segments: Performance Coatings, Industrial Coatings, Architectural Coatings EMEA (Europe, Middle East and Africa), Optical and Specialty Materials, Commodity Chemicals and Glass. Each of the business segments in which PPG is engaged is highly competitive. However, the diversification of product lines and worldwide markets served tend to minimize the impact on PPG s total sales and earnings from changes in demand for a particular product line or in a particular geographic area. Refer to Note 25, Reportable Business Segment Information under Item 8 of this Form 10-K for financial information relating to our reportable business segments.

#### Performance Coatings, Industrial Coatings and Architectural Coatings - EMEA

PPG is a major global supplier of protective and decorative coatings. The Performance Coatings, Industrial Coatings and Architectural Coatings EMEA reportable segments supply protective and decorative finishes for customers in a wide array of end use markets, including industrial equipment, appliances and packaging; factory-finished aluminum extrusions and steel and aluminum coils; marine and aircraft equipment; automotive original equipment; and other industrial and consumer products. In addition to supplying finishes to the automotive original equipment market, PPG supplies refinishes to the automotive aftermarket. PPG also supplies coatings to painting and maintenance contractors and directly to consumers for decoration and maintenance. The coatings industry is highly competitive and consists of a few large firms with global presence and many smaller firms serving local or regional markets. PPG competes in its primary markets with the world s largest coatings companies, most of which have global operations, and many smaller regional coatings companies. Product development, innovation, quality and technical and customer service have been stressed by PPG and have been significant factors in developing an important supplier position by PPG s coatings businesses comprising the Performance Coatings, Industrial Coatings and Architectural Coatings

On January 2, 2008, PPG completed the acquisition of SigmaKalon Group (SigmaKalon), a worldwide coatings producer based in Uithoorn, Netherlands. The results of operations of SigmaKalon are included in PPG s consolidated financial statements from the acquisition date onward. The businesses acquired from SigmaKalon produce architectural, protective and marine and industrial coatings. The protective and marine and industrial coatings businesses of SigmaKalon are managed as part of PPG s previously existing coatings businesses. The SigmaKalon architectural coatings business in Europe, the Middle East and Africa was reported as a separate reportable business segment known as Architectural Coatings EMEA beginning in 2008. This business represented about 70% of SigmaKalon s preacquisition sales.

The Performance Coatings reportable segment is comprised of the refinish, aerospace, protective and marine and architectural Americas and Asia Pacific coatings businesses.

The refinish coatings business supplies coatings products for automotive and commercial transport/fleet repair and refurbishing, light industrial coatings for a wide array of markets and specialty coatings for signs. These products are sold primarily through distributors.

The aerospace coatings business supplies sealants, coatings, technical cleaners and transparencies for commercial, military, regional jet and general aviation aircraft and transparent armor for military land vehicles. PPG supplies products to aircraft manufacturers, maintenance and

aftermarket customers around the world both on a direct basis and through a company-owned distribution network.

The protective and marine coatings business supplies coatings and finishes for the protection of metals and structures to metal fabricators, heavy duty maintenance contractors and manufacturers of ships, bridges, rail cars and shipping containers. These products are sold through the company-owned architectural coatings stores, independent distributors and directly to customers.

Product performance, technology, quality, distribution and technical and customer service are major competitive factors in these three coatings businesses.

The architectural coatings-Americas and Asia Pacific business primarily produces coatings used by painting and maintenance contractors and by consumers for decoration and maintenance. These coatings are sold under a number of brands. Architectural coatings Americas and Asia Pacific products are sold through a combination of company-owned stores, home centers, paint dealers, independent distributors and directly to customers. Price, product performance, quality, distribution and brand recognition are key competitive factors for the architectural coatings business. The architectural coatings-Americas and Asia Pacific business operates about 400 company-owned stores in North America and about 50 company-owned stores in Australia.

The major global competitors of the Performance Coatings reportable segment are Akzo Nobel NV, BASF Corporation, the DuPont Company, the Sherwin-Williams Company and Valspar Corporation. The average number of persons employed by the Performance Coatings reportable segment during 2009 was 12,700.

The Industrial Coatings reportable segment is comprised of the automotive, industrial and packaging coatings businesses. Industrial, automotive and packaging coatings are formulated specifically for the customers needs and application methods.

The industrial and automotive coatings businesses sell directly to a variety of manufacturing companies. PPG also supplies adhesives and sealants for the automotive industry and metal pretreatments and related chemicals for industrial and automotive applications. PPG has established alliances with Kansai Paint, Helios Group and Asian Paints Ltd. to serve certain automotive original equipment manufacturers in various regions of the world. PPG owns a 60% interest in PPG Kansai Finishes to serve Japanese-based automotive customers in North America and Europe. PPG owns a 60% interest in PPG Helios Ltd. to serve Russian-based automotive customers in Russia and the Ukraine. PPG owns a 50% interest in Asian PPG Paints to serve global and domestic-based automotive customers in India.

The packaging coatings business supplies coatings and inks to the manufacturers of aerosol, food and beverage containers.

Product performance, technology, quality and technical and customer service are major competitive factors in the industrial coatings businesses. The major global competitors of the Industrial Coatings reportable segment are Akzo Nobel NV, BASF Corporation, the DuPont Company, Valspar Corporation and Nippon Paint. The average number of persons employed by the Industrial Coatings reportable segment during 2009 was 8,900.

The Architectural Coatings EMEA business supplies a variety of coatings under a number of brands and purchased sundries to painting contractors and consumers in Europe, the Middle East and Africa. Architectural Coatings EMEA products are sold through a combination of about 560 company-owned stores, home centers, paint dealers, independent distributors and directly to customers. Price, product performance, quality, distribution and brand recognition are key competitive factors for this business. The major competitors of the Architectural Coatings EMEA reportable segment are Akzo Nobel NV and Materis Paints. The average number of persons employed by the Architectural Coatings EMEA reportable segment during 2009 was 8,500.

#### **Optical and Specialty Materials**

PPG s Optical and Specialty Materials reportable segment is comprised of the optical products and silicas businesses. The primary Optical and Specialty Materials products are *Transitions*<sup>®</sup> lenses, sunlenses and optical lens materials; amorphous precipitated silicas for tire, battery separator and other end-use markets; and *Teslin*<sup>®</sup> synthetic printing sheet used in such applications as waterproof labels, e-passports, drivers licenses and identification cards. *Transitions*<sup>®</sup> lenses are processed and distributed by PPG s 51%-owned joint venture with Essilor International. In the Optical and Specialty Materials businesses, product quality and performance, branding, distribution and technical service are the most critical competitive factors. The average number of persons employed by the Optical and Specialty Materials reportable business segment during 2009 was 3,000.

Historically, the Optical and Specialty Materials reportable segment included the fine chemicals business. PPG sold the fine chemicals business in the fourth quarter of 2007. As such, the results of operations and cash flows of this business have been classified as discontinued operations in the consolidated financial statements under Item 8 of this Form 10-K. Refer to Note 1, Summary of Significant Accounting Policies under Item 8 for further information.

**Commodity Chemicals** 

PPG is a producer and supplier of basic chemicals. The Commodity Chemicals reportable segment produces chlor-alkali and derivative products including chlorine, caustic soda, vinyl chloride monomer, chlorinated solvents, calcium hypochlorite, ethylene dichloride, hydrochloric acid and phosgene derivatives. Most of these products are sold directly to manufacturing companies in the chemical processing, rubber and plastics, paper, minerals, metals and water treatment industries. PPG competes with six other major producers of chlor-alkali products, including The Dow Chemical Company, Formosa Plastics Corporation, U.S.A., Georgia Gulf Corporation, Olin Corporation, Occidental Chemical Corporation and Shintech. Price, product availability, product quality and customer service are the key competitive factors. The average number of persons employed by the Commodity Chemicals reportable business segment during 2009 was 2,000.

#### Glass

PPG is a producer of flat glass in North America and a global producer of continuous-strand fiber glass. The Glass reportable business segment is comprised of the performance glazings and fiber glass businesses. PPG s major markets are commercial and residential construction and the wind energy, energy infrastructure, transportation and electronics industries. Most glass products are sold directly to manufacturing companies. PPG manufactures flat glass by the float process and fiber glass by the continuous-strand process.

The bases for competition in the Glass businesses are price, quality, technology and customer service. The Company competes with four major producers of flat glass including Asahi Glass Company, Cardinal Glass Industries, Guardian Industries and NSG Pilkington, and six major producers of fiber glass throughout the world, including Owens Corning-Vetrotex, Jushi Group, Johns

Manville Corporation, CPIC Fiberglass, AGY and Taishan Fiberglass. The average number of persons employed by the Glass reportable business segment during 2009 was 3,100.

Historically, the Glass reportable segment included the automotive glass and services business. In September 2008, PPG completed a transaction by which it divested a majority interest in the automotive glass and services business. The results of this business through September 30, 2008 are reported as part of the Glass reportable segment in the consolidated financial statements under Item 8 of this Form 10-K. See Note 3, Divestiture of Automotive Glass and Services Business under Item 8 for additional information.

#### Raw Materials and Energy

The effective management of raw materials and energy is important to PPG s continued success. Our primary energy cost is natural gas used in our Commodity Chemicals and Glass businesses. In 2009, our natural gas costs continued to be volatile and on average decreased almost 33 percent in the U.S. compared to 2008 levels. The decrease can be linked to year-over-year weak consumption, favorable weather and inflated inventories.

During 2009, the benefit of lower coatings raw material costs totaled \$150 million globally, recovering a portion of the raw material cost increases that occurred over the prior three years of \$150 million in 2008, \$40 million in 2007 and \$75 million in 2006. Many of our coatings raw materials are petroleum based and changes in pricing for these raw materials traditionally lag oil price fluctuations by several months. Our costs are also dependent on global supply and demand for these materials, which can vary by geographic region. Sluggish global demand resulting from the economic recession combined with overcapacity and high inventory levels caused our raw material costs to decline in 2009, particularly in the first half of the year. During the fourth quarter of 2009, we experienced some cost increases as demand improved gradually and supplier inventories contracted.

The Company s most significant raw materials are titanium dioxide and epoxy and other resins in the Coatings businesses; lenses, sand and soda ash in the Optical and Specialty Materials businesses; brine and ethylene in the Commodity Chemicals business; and sand and soda ash in the Glass businesses. Energy is a significant production cost in the Commodity Chemicals and Glass businesses. Most of the raw materials and energy used in production are purchased from outside sources, and the Company has made, and plans to continue to make, supply arrangements to meet the planned operating requirements for the future. Supply of critical raw materials and energy is managed by establishing contracts, multiple sources, and identifying alternative materials or technology, whenever possible. The Company has aggressive sourcing initiatives underway to support its continuous efforts to find the lowest total material costs. These initiatives include reformulation of certain of our products using both petroleum derived and bio-based materials as part of a product renewal strategy. Another initiative is to qualify multiple sources of supply, including suppliers from Asia and other lower cost regions of the world.

We are subject to existing and evolving standards relating to the registration of chemicals that impact or could potentially impact the availability and viability of some of the raw materials we use in our production processes. Our ongoing global product stewardship efforts are directed at maintaining our compliance with these standards.

In December 2006, the European Union (EU) member states adopted a new comprehensive chemical management legislation known as REACH (Registration, Evaluation, and Authorization of Chemicals). REACH applies to all chemical substances manufactured or imported into the EU in quantities of one metric ton or more annually and will require the registration of approximately 30,000 chemical substances with the European Chemicals Agency. PPG met the requirements for pre-registration of such chemicals that ended on December 1, 2008. Additionally, REACH requires the registration of these substances, entailing the filing of extensive data on their potential risks to human health and the environment.

Registration activities will occur in three phases over an 11-year period, based on tonnage and level of concern, with the first registration deadline set for December 1, 2010. Subsequent phases end in 2013 and 2018. In the case of chemicals with a high level of concern, the regulation calls for progressive substitution unless no alternative can be found; in these cases, authorization of the chemicals will be required.

PPG has established a dedicated organization to manage REACH implementation. We have continued review of our product portfolio, worked closely with our suppliers to assure their commitment to register substances in our key raw materials and begun preparation for registration of substances in PPG manufactured or imported raw materials. We will continue to work with our suppliers to understand the future availability and viability of the raw materials we use in our production processes.

Compliance with the REACH legislation will result in increased costs due to registration costs, product testing and reformulation, risk characterization and participation in Substance Information Exchange Forums (SIEFs) required to coordinate registration dossier preparation. PPG has identified a number of substances that may require 2010 registration and is engaged with other key companies through SIEFs to develop the required registration dossiers. The costs for 2013 and 2018 registrations and potential additional future testing in

support of 2010 registrations are currently unclear; however, our preliminary estimate, in total, is in the range of \$30 million to \$45 million. We anticipate that some current raw materials and products will be subject to the REACH authorization process and believe that we will be able to demonstrate adequate risk management for the use and application of the majority of such substances.

The U.S. Environmental Protection Agency (USEPA) has formally withdrawn their previously- announced program called ChAMP (Chemical Assessment and Management Program). This program had been intended to address hazard and risk characterization of chemicals imported or manufactured in the U.S. in quantities above 25,000 pounds annually. Further, the USEPA announced that ChAMP will be superseded by a comprehensive approach to enhancing the Agency s current chemicals management program.

At this time, it is not possible to quantify the financial impact of these regulatory initiatives on PPG s businesses.

#### **Research and Development**

Technology innovation has been a hallmark of PPG s success throughout its history. Research and development costs, including depreciation of research facilities, were \$403 million, \$468 million and \$363 million during 2009, 2008 and 2007, respectively. These costs totaled approximately 3% of sales in each of these years, representing a level of expenditure that is expected to continue in 2010. PPG owns and operates several facilities to conduct research and development relating to new and improved products and processes. Additional process and product research and development work is also undertaken at many of the Company s manufacturing plants. As part of our ongoing efforts to manage our costs effectively, we operate a global competitive sourcing laboratory in China, have outsourcing arrangements with several laboratories and have been actively pursuing government funding of a small, but growing portion of the Company s research efforts. Because of the Company s broad array of products and customers, PPG is not materially dependent upon any single technology platform.

#### **Patents**

PPG considers patent protection to be important. The Company s reportable business segments are not materially dependent upon any single patent or group of related patents. PPG earned \$45 million in 2009, \$52 million in 2008 and \$48 million in 2007 from royalties and the sale of technical know-how.

### Backlog

In general, PPG does not manufacture its products against a backlog of orders. Production and inventory levels are geared primarily to projections of future demand and the level of incoming orders.

#### Non-U.S. Operations

PPG has a significant investment in non-U.S. operations, and as a result we are subject to certain inherent risks, including economic and political conditions in international markets and fluctuations in foreign currency exchange rates. While approximately 75% of sales and operating income is generated by products sold in the United States, Canada and Western Europe, our remaining sales and operating income are generated in developing regions, such as Asia, Eastern Europe and Latin America.

#### **Employee Relations**

The average number of persons employed worldwide by PPG during 2009 was 39,900. The Company has numerous collective bargaining agreements throughout the world. While we have experienced occasional work stoppages as a result of the collective bargaining process and may experience some work stoppages in the future, we believe we will be able to negotiate all labor agreements on satisfactory terms. To date, these work stoppages have not had a significant impact on PPG s operating results. Overall, the Company believes it has good relationships with its employees.

#### **Environmental Matters**

PPG is subject to existing and evolving standards relating to protection of the environment. Capital expenditures for environmental control projects were \$27 million, \$15 million and \$16 million in 2009, 2008 and 2007, respectively. It is expected that expenditures for such projects in 2010 will be in the range of \$20-\$25 million. Although future capital expenditures are difficult to estimate accurately because of constantly changing regulatory standards and policies, it can be anticipated that environmental control standards will become increasingly stringent and the cost of compliance will increase.

PPG completed the conversion of its Lake Charles, La., mercury cell chlor-alkali unit to membrane cell technology in 2007. PPG currently operates one remaining mercury cell production unit located in Natrium, W.Va. This unit constitutes approximately 4% of PPG s total chlor-alkali production capacity.

PPG is negotiating with various government agencies concerning 104 current and former manufacturing sites and offsite waste disposal locations, including 22 sites on the National Priority List. While PPG is not generally a major contributor of wastes to these offsite waste disposal locations, each potentially responsible party may face governmental agency assertions of joint and several liability. Generally, however, a final allocation of costs is made based on relative contributions of wastes to the site. There is a wide range of cost estimates for cleanup of these sites, due largely to uncertainties as to the nature and extent of their condition and the methods that may have to be employed for their remediation. The Company

has established reserves for onsite and offsite remediation of those sites where it is probable that a liability has been incurred and the amount can be reasonably estimated. As of December 31, 2009 and 2008, PPG had reserves for environmental contingencies totaling \$287 million and \$299 million, respectively, of which \$59 million and \$44 million, respectively, were classified as current liabilities. Pretax charges against income for environmental remediation costs in 2009, 2008 and 2007 totaled \$11 million, \$15 million and \$12 million, respectively. Cash outlays related to such environmental remediation aggregated \$24 million, \$24 million and \$19 million in 2009, 2008 and 2007, respectively. As part of the allocation of the SigmaKalon purchase price to the assets acquired and liabilities assumed, the reserve for environmental contingencies was increased by \$37 million in 2008. The impact of foreign currency translation increased the liability by \$1 million in 2009 and decreased the liability by \$5 million in 2008. Environmental remediation of a former chromium manufacturing plant site and associated sites in Jersey City, N.J., represents the major part of our existing reserves. Included in the amounts mentioned above were \$188 million and \$193 million in reserves at December 31, 2009 and 2008, respectively, associated with all New Jersey chromium sites.

The Company s experience to date regarding environmental matters leads PPG to believe that it will have continuing expenditures for compliance with provisions regulating the protection of the environment and for present and future remediation efforts at waste and plant sites. Management anticipates that such expenditures will occur over an extended period of time.

Our continuing efforts to analyze and assess the environmental issues associated with a former chromium manufacturing plant site located in Jersey City, N.J., and the Calcasieu River Estuary located near our Lake Charles, La. chlor-alkali plant resulted in a pre-tax charge of \$173 million in the third quarter of 2006 for the estimated costs of remediating these sites. These charges for estimated environmental remediation costs in 2006 were significantly higher than PPG s historical range. Excluding 2006, pre-tax charges against income have ranged between \$10 million and \$49 million per year for the past 15 years. We anticipate that charges against income in 2010 for environmental remediation costs will be within this historical range.

In management s opinion, the Company operates in an environmentally sound manner, is well positioned, relative to environmental matters, within the industries in which it operates, and the outcome of these environmental contingencies will not have a material adverse effect on PPG s financial position or liquidity; however, any such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized. See Note 16, Commitments and Contingent Liabilities, under Item 8 of this Form 10-K for additional information related to environmental matters.

Public and governmental concerns related to climate change continue to grow, leading to efforts to limit the greenhouse gas (GHG) emissions believed to be responsible. These concerns were reflected in the 2005 framework for GHG reduction under the Kyoto Protocol to the United Nations Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol was adopted by many countries where PPG operates, including the European Union and Canada, though not in the U.S. The European Union implemented a cap and trade approach with a mandatory emissions trading scheme for GHGs. In December 2007, delegates to the UNFCCC reached agreement on development of a plan for the second phase of Kyoto, which culminated in the Copenhagen Accord in December 2009. The Copenhagen Accord requires Annex I Parties (economically developed countries) to further strengthen the emission reductions initiated by the Kyoto Protocol by submitting economy-wide emission targets for 2020. PPG has operations in many of these countries. However, there are indications that some influential Annex 1 and Non-Annex 1 countries may decide to reduce their emission targets or forego signing the Accord thereby putting the future of the entire Climate Change Convention into question.

A substantial portion of PPG s GHG emissions are generated by locations in the U.S., where considerable legislative and regulatory activity has taken place during 2009. As a result of a U.S. Supreme Court ruling in April 2007 declaring that GHGs are air pollutants covered by the Clean Air Act, the USEPA proposed and later finalized in December 2009 an Endangerment Finding that GHG emissions threaten public health and welfare of current and future generations. Based on the Endangerment Finding, the USEPA proposed new, tailored thresholds for GHG emissions that define when Clean Air Act New Source Review and title V operating permit programs would be required for new or existing industrial facilities. As proposed, the rules would impose new permit requirements on PPG facilities emitting more than 25,000 tons of GHGs

per year. The U.S. federal government has committed to a 17% economy-wide emission reduction target below 2005 levels by 2020. The potential impact of these proposed regulations on PPG will not be known until they are finalized.

PPG is a member of the U.S.-based Climate Registry, an organization that sets standards to calculate, verify and publicly report greenhouse gas emissions into a single registry. The Registry assists in verification of current and future PPG GHG reduction achievements in preparation for potential imposition in the U.S. of GHG reduction goals. PPG is also a member of the USEPA s Climate Leaders program, which works with companies to develop comprehensive climate-change strategies. In addition,

PPG has been recognized by the Climate Disclosure Project as a leader in emissions disclosure and reduction.

Energy prices and supply continue to be a concern for major energy users. Since PPG s GHG emissions arise principally from combustion of fossil fuels, PPG has for some time recognized the desirability of reducing energy consumption and GHG generation. We committed under the Business Roundtable s Climate RESOLVE program to reduce our GHG intensity (GHGs produced per million dollars of revenue) by 18% between 2002 and 2012. PPG achieved this target in 2006, six years ahead of schedule. Additionally, in 2007 PPG announced new corporate targets, namely (i) a reduction in energy intensity by 25% from 2006 to 2016 and (ii) a 10% absolute reduction in GHG emissions from 2006 to 2011. PPG has joined the U.S. Department of Energy Save Energy Now LEADER Program reinforcing the company s voluntary efforts to significantly reduce its industrial energy intensity. Recognizing the continuing importance of this matter, PPG has a senior management group with a mandate to guide the Company s progress in this area.

PPG s public disclosure on energy security and climate change can be viewed in our Sustainability Report *http://corporateportal.ppg.com/ppg/csr* or at the Carbon Disclosure Project *www.cdproject.net*.

#### **Available Information**

The Company s website address is *www.ppg.com*. The Company posts, and shareholders may access without charge, the Company s recent filings and any amendments thereto of its annual reports on Form 10-K, quarterly reports on Form 10-Q and its proxy statements as soon as reasonably practicable after such reports are filed with the Securities and Exchange Commission (SEC). The Company also posts all financial press releases and earnings releases to its website. All other reports filed or furnished to the SEC, including reports on Form 8-K, are available via direct link on PPG s website to the SEC s website, *www.sec.gov*. Reference to the Company s and SEC s websites herein does not incorporate by reference any information contained on those websites and such information should not be considered part of this Form 10-K.

#### **Item 1A. Risk Factors**

As a global manufacturer of coatings, glass and chemicals products, we operate in a business environment that includes risks. These risks are not unlike the risks we have faced in the recent past. Each of the risks described in this section could adversely affect our operating results, financial position and liquidity. While the factors listed here are considered to be the more significant factors, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles which may adversely affect our business.

#### The global recession and credit crisis could continue to have negative impact on our results of operations and cash flows.

During the fourth quarter of 2008, the demand for many of our products in Europe, Asia and Latin America declined significantly as the impact of the recession, which had impacted demand throughout 2008 in the U.S. and U.K. economies, spread globally. Many global industrial end-markets remained depressed for most of 2009. The impact of the recession was felt by all of our businesses but most noticeably by those businesses serving the automotive original equipment, construction, housing and general industrial markets. Entering 2010, the global economic outlook reflects expectations of gradual year-over-year improvement in many industrial sectors, but the breadth and pace of the recovery is uncertain. Anticipation is for growth to continue in most Asian economies driven by these global demand improvements. Modest recovery is expected to continue in the North American economy, with some offsets due to later economic cycle sectors such as commercial construction, which is projected to continue to decline. The recovery rate of the European economy is expected to lag both Asia and North America. A source of concern is the anticipation that various government stimulus programs will gradually be removed without a consensus conviction that consumer spending in these countries will provide an offset to support the recovery. Continued weakness in the global economy would be expected to result in lower demand for many of our products and increase our exposure to credit risk from customers in the industries most

impacted by the weak economy. How strongly the rebound of the global economy takes hold or if the signs of recovery will last is not known.

### Increases in prices and declines in the availability of raw materials could negatively impact our financial results.

Our operating results are significantly affected by the cost of raw materials and energy, including natural gas. Changes in natural gas prices have a significant impact on the operating performance of our Commodity Chemicals and Glass businesses. Each one-dollar change in our unit cost of natural gas per million British Thermal Units ( mmbtu ) has a direct impact of approximately \$60 million to \$70 million on our annual operating costs. In 2009, our natural gas costs on average decreased almost 33% in the U.S. compared to 2008 levels. Year-over-year coatings raw material costs declined by approximately \$150 million in 2009 following a rise of approximately \$150 million in 2008. This increase in costs, which was partially linked to increased oil prices, occurred in all regions of the world, with the most significant impact in the U.S. Whether oil prices and our raw material costs will increase in 2010 is not known.

We also import raw materials, particularly for use at our manufacturing facilities in the emerging regions of the world. In most cases, those imports are priced in the

currency of the supplier and, therefore, our margins are at risk of being lowered if those foreign currencies strengthen against the local currencies of our manufacturing facilities.

Additionally, certain raw materials are critical to our production processes. These include titanium dioxide and epoxy and other resins in the Coatings businesses; lenses, photochromic dye, sand and soda ash in the Optical and Specialty Materials businesses; brine and ethylene in the Commodity Chemicals business; and sand and soda ash in the Glass businesses. We have made, and plan to continue to make, supply arrangements to meet the planned operating requirements for the future. However, an inability to obtain these critical raw materials would adversely impact our ability to produce products.

#### We experience substantial competition from certain low-cost regions.

Growing competition from companies in certain regions of the world, including Asia, Eastern Europe and Latin America, where energy and labor costs are lower than those in the U.S., could result in lower selling prices or reduced demand for some of our glass and fiber glass products.

#### We are subject to existing and evolving standards relating to the protection of the environment.

We have accrued \$287 million for estimated environmental remediation costs that are probable at December 31, 2009. Our assessment of the potential impact of these environmental contingencies is subject to considerable uncertainty due to the complex, ongoing and evolving process of investigation and remediation, if necessary, of such environmental contingencies, and the potential for technological and regulatory developments. As such, in addition to the amounts currently reserved, we may be subject to loss contingencies related to environmental matters estimated to be as much as \$200 million to \$300 million. Such unreserved losses are reasonably possible but are not currently considered to be probable of occurrence.

#### We are involved in a number of lawsuits and claims, both actual and potential, in which substantial monetary damages are sought.

The results of any future litigation or settlement of such lawsuits and claims are inherently unpredictable, but such outcomes could be adverse and material in amount.

#### For over 30 years, we have been a defendant in lawsuits involving claims alleging personal injury from exposure to asbestos.

Most of our potential exposure relates to allegations by plaintiffs that PPG should be liable for injuries involving asbestos containing thermal insulation products manufactured by Pittsburgh Corning Corporation (PC). PPG is a 50% shareholder of PC. Although we have entered into a settlement arrangement with several parties concerning these asbestos claims as discussed in Note 16, Commitments and Contingent Liabilities, under Item 8 of this Form 10-K, the arrangement remains subject to court proceedings and, if not approved, the outcome could be material to the results of operations of any particular period.

#### Our products are subject to existing and evolving regulations.

Regulations concerning the composition and use of chemical products continue to evolve. Developments concerning these regulations could potentially impact (i) the availability or viability of some of the raw materials we use in our product formulations and/or (ii) our ability to supply certain products to some customers or markets.

#### Our international operations expose us to additional risks and uncertainties that could affect our financial results.

Because we are a global company, our results are subject to certain inherent risks, including economic and political conditions in international markets and fluctuations in foreign currency exchange rates. While approximately 75% of sales and operating income in 2009 was generated by products sold in the United States, Canada and Western Europe, our remaining sales and operating income are generated in developing regions, such as Asia, Eastern Europe and Latin America.

#### As a producer of chemicals, we manufacture and transport certain materials that are inherently hazardous due to their toxic nature.

We have significant experience in handling these materials and take precautions to handle and transport them in a safe manner. However, these materials, if mishandled or released into the environment, could cause substantial property damage or personal injuries resulting in significant legal claims against us. In addition, evolving regulations concerning the security of chemical production facilities and the transportation of hazardous chemicals could result in increased future capital or operating costs.

#### We sell products to global and regional automotive original equipment manufacturers and their suppliers.

The economic downturn caused declines in global production of automobiles and light trucks, which adversely impacted our sales volumes. While the automotive market experienced higher and more consistent production and sales levels in the second half of 2009, the overall market still remained at a very low activity level.

The North American automotive industry continues to experience structural change, including the loss of U.S. market share by General Motors and Chrysler. During 2009, both companies emerged from bankruptcy with the assistance of equity infusions by the U.S. government. These developments have mitigated any potential credit exposure we may face. However, we remain focused on the continual management of automotive customer credit risk as further deterioration of market conditions could

cause additional liquidity problems, potentially resulting in the write-off of amounts due from these customers and cost impacts of changing suppliers.

Additionally, the same economic conditions that are impacting our continuing businesses that serve the automotive original equipment manufacturer (OEM) market are affecting the divested automotive glass and services business, in which PPG maintains an approximate 40 percent interest.

#### Business disruptions could have a negative impact on our results of operations and financial condition.

Unexpected events, including supply disruptions, temporary plant and/or power outages, natural disasters and severe weather events, fires, war or terrorist activities, could increase the cost of doing business or otherwise harm the operations of PPG, our customers and our suppliers. It is not possible for us to predict the occurrence or consequence of any such events. However, such events could reduce demand for our products or make it difficult or impossible for us to receive raw materials from suppliers or to deliver products to customers.

#### Item 1B. Unresolved Staff Comments

None.

#### **Item 2. Properties**

The Company s corporate headquarters is located in Pittsburgh, Pa. The Company s manufacturing facilities, sales offices, research and development centers and distribution centers are located throughout the world. The Company operates 121 manufacturing facilities in 41 countries. The Company s principal manufacturing and distribution facilities are as follows:

Performance Coatings:	Clayton, Australia; Delaware, Ohio; Dover, Del.; Huntsville, Ala.; Kunshan, China; Stowmarket, United Kingdom; Sylmar, Calif.; about 400 company-owned stores in the
	United States and about 50 company-owned stores in Australia
Industrial Coatings:	Cieszyn, Poland; Cleveland, Ohio; Oak Creek, Wis.; Tianjin, China; Quattordio, Italy;
	San Juan del Rio, Mexico and Busan, South Korea
Architectural Coatings EMEA:	Ruitz, France; Budapest, Hungary; Amsterdam, Netherlands; Wroclaw, Poland;
-	Birstall, United Kingdom and about 560 company-owned stores, including 175 stores
	each in France and the United Kingdom
Optical and Specialty Materials:	Barberton, Ohio; Bangkok, Thailand; Lake Charles, La.; and Manila, Philippines
Commodity Chemicals:	Lake Charles, La. and Natrium, W. Va.
Glass:	Carlisle, Pa.; Hoogezand, Netherlands; Shelby, N.C. and Wichita Falls, Texas

Including the principal manufacturing facilities noted above, the Company has manufacturing facilities in the following geographic areas:

United States: Other Americas: EMEA: Asia: 35 manufacturing facilities in 21 states.10 manufacturing facilities in 6 countries.51 manufacturing facilities in 25 countries.25 manufacturing facilities in 9 countries.

The Company s principal research and development centers are located in Allison Park, Pa.; Harmarville, Pa.; and Monroeville, Pa.

The Company s headquarters and company-owned paint stores are located in facilities that are leased while the Company s other facilities are generally owned. Our facilities are considered to be suitable and adequate for the purposes for which they are intended and overall have sufficient capacity to conduct business in the upcoming year.

#### **Item 3. Legal Proceedings**

PPG is involved in a number of lawsuits and claims, both actual and potential, including some that it has asserted against others, in which substantial monetary damages are sought. These lawsuits and claims, the most significant of which are described below, relate to contract, patent, environmental, product liability, antitrust and other matters arising out of the conduct of PPG s current and past business activities. To the extent that these lawsuits and claims involve personal injury and property damage, PPG believes it has adequate insurance; however, certain of PPG s insurers are contesting coverage with respect to some of these claims, and other insurers, as they had prior to the asbestos settlement described below, may contest coverage with respect to some of the asbestos claims if the settlement is not implemented. PPG s lawsuits and claims against others include claims against insurers and other third parties with respect to actual and contingent losses related to environmental, asbestos and other matters.

The result of any future litigation of such lawsuits and claims is inherently unpredictable. However, management believes that, in the aggregate, the outcome of all lawsuits and claims involving PPG, including asbestos-related claims in the event the settlement described below does not become effective, will not have a material effect on PPG s consolidated financial position or liquidity; however, such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized.

For over 30 years, PPG has been a defendant in lawsuits involving claims alleging personal injury from exposure to asbestos. For a description of asbestos litigation affecting the Company and the terms and status of the proposed asbestos settlement arrangement, see Note 16, Commitments and Contingent Liabilities under Item 8 of this Form 10-K.

Over the past several years, the Company and others have been named as defendants in several cases in various jurisdictions claiming damages related to exposure to lead and remediation of lead-based coatings applications. PPG has been dismissed as a defendant from most of these lawsuits and has never been found liable in any of these cases.

A Notice of Intent ( NOI ) to file a Citizen Suit under the federal Clean Water Act has been received by PPG from the West Virginia Rivers Coalition and Oceana. The NOI alleges that PPG exceeded permitted discharge limits at its Natrium, West Virginia plant. The West Virginia Department of Environmental Protection filed suit in State Court for the permit exceedances covered by the NOI and informed PPG that it intended to seek a civil penalty. Prior to the expiration of the 60-day notice period, a lawsuit was filed in state court by the West Virginia Department of Environmental Protection ( WVDEP ) for the same alleged violations described in the Citizen Suit NOI, blocking the Citizen Suit for the time being. PPG is in the process of negotiating with WVDEP in an attempt to settle this matter. In PPG s experience, resolution of matters such as these is difficult to predict.

PPG has received a Consolidated Compliance Order and Notice of Proposed Penalty (CO/NOPP) from the Louisiana Department of Environmental Quality (DEQ) alleging violation of various requirements of its Lake Charles, La. facility s air permit based largely upon permit deviations self-reported by PPG. The CO/NOPP did not contain a proposed civil penalty. PPG filed a request for hearing and has engaged DEQ in settlement discussions. In PPG s experience, resolution of such matters is difficult to predict.

### Item 4. Submission of Matters to a Vote of Security Holders

None.

### **Executive Officers of the Company**

Set forth below is information related to the Company s executive officers as of February 18, 2010.

Name	Age	Title
Charles E. Bunch (a)	60	Chairman of the Board and Chief Executive Officer since July 2005
James C. Diggs (b)	61	Senior Vice President and General Counsel since July 1997
Robert J. Dellinger (c)	49	Senior Vice President, Finance and Chief Financial Officer since October 2009
J. Rich Alexander (d)	54	Senior Vice President, Performance Coatings since May 2005
Pierre-Marie De Leener (e)	52	Senior Vice President, Architectural Coatings, Europe, Middle East and Africa since January
		2008 and President, PPG Europe since July 2008
Richard C. Elias (f)	56	Senior Vice President, Optical and Specialty Materials since July 2008
Victoria M. Holt (g)	52	Senior Vice President, Glass and Fiber Glass since May 2005
Michael H. McGarry (h)	51	Senior Vice President, Commodity Chemicals since July 2008
William A. Wulfsohn (i)	47	Senior Vice President, Industrial Coatings since May 2005
(a) Mr. Bunch held the position of President and Chief	<sup>°</sup> Operating	Officer from July 2002 until July 2005.
(h) My Diana alao hald the meritian of Country from	Cantanhan	2004 through Like 16, 2000

(b) Mr. Diggs also held the position of Secretary from September 2004 through July 16, 2009.

(c) Mr. Dellinger held the position of Senior Vice President, Finance and Chief Financial Officer Designate from September 2009 through October 2009. Prior to joining PPG, he held the position of Executive Vice President and Chief Financial Officer from October 2005 to September 2008 at Delphi Corporation and Executive Vice President and Chief Financial Officer from June 2002 through September 2005 at Sprint Corporation.

(d) Mr. Alexander held the position of Vice President, Industrial Coatings from July 2002 until April 2005.

(e) Mr. De Leener was appointed to Senior Vice President, Architectural Coatings, Europe, Middle East and Africa upon PPG s acquisition of SigmaKalon Group on January 2, 2008. He previously served as Chief Executive Officer of SigmaKalon Group from 1999 until January 2008.

(f) Mr. Elias held the position of Vice President, Optical Products from April 2000 until June 2008.

(g) Ms. Holt held the position of Vice President, Fiber Glass from February 2003 until April 2005.

- (h) Mr. McGarry held the positions of Vice President, Coatings, Europe and Managing Director, PPG Europe from July 2006 through June 2008; and the position of Vice President, Chlor-Alkali and Derivatives from March 2004 through June 2006.
- (i) Mr. Wulfsohn also held the position of Managing Director, PPG Europe from May 2005 until June 2006; and the position of Vice President, Coatings, Europe, and Managing Director, PPG Europe from February 2003 until April 2005.

# Part II

#### Item 5. Market for the Registrant s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

The information required by Item 5 regarding market information, including stock exchange listings and quarterly stock market prices, dividends and holders of common stock is included in Exhibit 13.1 filed with this Form 10-K and is incorporated herein by reference. This information is also included in the PPG Shareholder Information on page 81 of the Annual Report to shareholders.

Directors who are not also officers of the Company receive common stock equivalents pursuant to the PPG Industries, Inc., Deferred Compensation Plan for Directors (PPG Deferred Compensation Plan for Directors). Common stock equivalents are hypothetical shares of common stock having a value on any given date equal to the value of a share of common stock. Common stock equivalents earn dividend equivalents that are converted into additional common stock equivalents but carry no voting rights or other rights afforded to a holder of common stock. The common stock equivalents credited to directors under this plan are exempt from registration under Section 4(2) of the Securities Act of 1933 as private offerings made only to directors of the Company in accordance with the provisions of the plan.

Under the PPG Deferred Compensation Plan for Directors, each director may elect to defer the receipt of all or any portion of the compensation paid to such director for serving as a PPG director. All deferred payments are held in the form of common stock equivalents. Payments out of the deferred accounts are made in the form of common stock of the Company (and cash as to any fractional common stock equivalent). The directors, as a group, were credited with 22,103; 9,751; and 9,742 common stock equivalents in 2009, 2008 and 2007, respectively, under this plan. The values of the common stock equivalents, when credited, ranged from \$34.34 to \$58.51 in 2009, \$43.89 to \$67.77 in 2008 and \$68.71 to \$75.50 in 2007.

### **Issuer Purchases of Equity Securities**

The following table summarizes the Company s stock repurchase activity for the three months ended December 31, 2009:

			Total	
			Number	Maximum Number of
			of Shares Purchased	Shares
Month October 2009	Total Number of Shares Purchased	Average Price Paid per Share	as Part of Publicly Announced Programs <sup>(1)</sup>	that May Yet Be Purchased Under the Programs <sup>(2)</sup>
Repurchase program		\$		3,850,009
November 2009				
Repurchase program				3,850,009
December 2009				
Repurchase programs	1,500,000	39.53	1,500,000	7,350,009
Total quarter ended				

1	December 31, 2009					
	Repurchase programs	1,500,000	\$	39.53	1,500,000	7,350,009
(	1) These shares were repurchased under a 10 million share repurchase pr	ogram approved b	v PPG	s Board of D	irectors in Octobe	r 2005. This program does

- (1) These shares were repurchased under a 10 multion share repurchase program approved by PPG's Board of Directors in October 2005. This program does not have an expiration date.
  (2) In December 2009, the Board of Directors authorized the repurchase of an additional 5 million shares of outstanding stock. This program does not have an
- (2) In December 2009, the Board of Directors authorized the repurchase of an additional 5 million shares of outstanding stock. This program does not have an expiration date.

### **Equity Compensation Plan Information**

The equity compensation plan documents described in the footnotes below are included as Exhibits to this Form 10-K, and are incorporated herein by reference in their entirety. The following table provides information as of December 31, 2009 regarding the number of shares of PPG common stock that may be issued under PPG s equity compensation plans. For additional information on the Company s equity compensation program, see Note 21, Stock-Based Compensation, under Item 8 of this Form 10-K.

	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted- average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a))
<i>Plan category</i> Equity compensation plans approved by security holders <sup>(1)</sup>	(a) 8,850,408	(b) \$57.51	(c) 6,205,472

Equity compensation plans not approved by security holders<sup>(2)</sup>

#### Total

8,850,408

\$57.51

6,205,472

(1) Equity compensation plans approved by security holders include the PPG Industries, Inc., Stock Plan, the PPG Industries, Inc., Omnibus Incentive Plan, the PPG Industries, Inc., Executive Officers Long Term Incentive Plan and the PPG Industries Inc., Long Term Incentive Plan.

(2) Excluded from the information presented here are common stock equivalents held under the PPG Industries, Inc., Deferred Compensation Plan and the PPG Industries, Inc., Deferred Compensation Plan for Directors, neither of which are equity compensation plans. As supplemental information, there were 548,816 common stock equivalents held under such plans as of December 31, 2009.

#### Item 6. Selected Financial Data

The information required by Item 6 regarding the selected financial data for the five years ended December 31, 2009 is included in Exhibit 13.2 filed with this Form 10-K and is incorporated herein by reference. This information is also reported in the Five-Year Digest on page 80 of the Annual Report to shareholders.

#### Item 7. Management s Discussion and Analysis of Financial Condition and Results of Operations

Performance in 2009 compared with 2008

#### **Performance** Overview

Our sales in 2009 totaled \$12.2 billion compared to \$15.8 billion in 2008. The sales decrease totaled 23%. Sales decreased 13% due to lower sales volumes in all reportable segments reflecting the adverse impact of the global recession on demand, 4% due to weaker foreign currency, 5% due to the absence of sales from the divested automotive glass and services business and 1% due to lower selling prices.

Cost of sales, exclusive of depreciation and amortization, decreased by \$2,616 million in 2009 to \$7,539 million compared to \$10,155 million in 2008. Cost of sales as a percentage of sales was 61.6% in 2009 compared to 64.1% in 2008. Cost of sales in 2008 includes \$94 million for the flow through cost of sales of the step up to fair value of acquired inventory. The reduction in cost of sales as a percentage of sales was due to our higher margin coatings businesses being a larger portion of our total 2009 results, favorable manufacturing cost efficiency and favorable price net of inflation.

Selling, general and administrative expenses decreased by \$496 million in 2009 compared to 2008 due to lower sales volumes, specific overhead cost reduction actions taken in response to the decline in the global economy, the impact of foreign currency translation and the absence of the 2008 charge of \$19 million for special termination benefits and a pension curtailment loss relating to the sale of the automotive glass and services business.

Depreciation expense decreased by \$74 million in 2009 due to the impact of foreign currency translation, our restructuring actions and the divestiture of the automotive glass and services business. Research and development costs decreased by \$63 million in 2009 largely due to cost reduction efforts and the impact of foreign currency translation. Interest expense decreased by \$61 million in 2009, reflective of the lower debt balances and lower interest rates in 2009.

During the first quarter of 2009, the Company finalized a restructuring plan that is focused on further reducing PPG s global cost structure. The Company recorded a charge of \$186 million for the cost of this restructuring. During the third quarter of 2008, the Company finalized a restructuring plan that is part of implementing PPG s global transformation strategy and the integration of its acquisition of SigmaKalon. The Company recorded a charge of \$163 million for the cost of this restructuring.

Other earnings increased by \$13 million in 2009 due primarily to the impact of gains on non-operating asset sales.

The effective tax rate on pretax earnings in 2009 was 31.0% compared to 31.3% in 2008. The 2009 rate includes a tax benefit of \$2 million related to audit settlements. The 2009 rate also includes a tax benefit of 24.5% related to the business restructuring charge and a tax benefit of 38.5% related to the adjustment to increase the current value of the Company s obligation relating to asbestos claims under the proposed asbestos settlement, as discussed in Note 16, Commitments and Contingent Liabilities under Item 8 of this Form 10-K. The tax rate was approximately 30% on the remaining pretax earnings in 2009.

The 2008 rate includes a tax benefit of \$14 million related to the settlement with the Internal Revenue Service of our U.S. tax returns for tax years 2004, 2005 and 2006. The 2008 rate also includes a total net tax benefit of 26.5% on costs related to the acquisition of SigmaKalon, the charges for the catch-up of depreciation expense and the impact of benefit changes related to the divestiture of the automotive glass and services business, the business restructuring charge, the adjustment to increase the current value of the Company s obligation under the proposed asbestos settlement and the gain on divestiture of the automotive glass and services business. The tax rate was approximately 31% on the remaining pretax earnings in 2008.

Net income (attributable to PPG) and earnings per share assuming dilution (attributable to PPG) for 2009 and 2008 are summarized below:

(Millions, except per share amounts) Year ended December 31, 2009	Net Iı	псоте
	\$	EPS
Net income (attributable to PPG)	\$ 336	\$ 2.03
Net income (attributable to PPG) includes:		
Charges related to:		
Business restructuring	141	0.86
Asbestos settlement nét <sup>)</sup>	8	0.05

# Management s Discussion and Analysis

(Millions, except per share amounts) dad Da . 21 2000

(minions, except per share amounts)		
Year ended December 31, 2008	Net I	ncome
	\$	EPS
Net income (attributable to PPG)	\$ 538	\$ 3.25
Net income (attributable to PPG) includes:		
Charges related to:		
Business restructuring	110	0.67
Asbestos settlement nét	2	0.01
Acquisition-related costs <sup>(2)</sup>	89	0.54
Depreciation catch-up <sup>(3)</sup>	11	0.07
Divestiture related benefit costs <sup>(4)</sup>	12	0.07
Gain on divestiture of automotive glass and services business	(3)	(0.02)

(1) Net increase in the current value of the Company s obligation relating to asbestos claims under the proposed asbestos settlement.

Costs related to SigmaKalon acquisition, including \$66 million aftertax for the flow-through cost of sales of the step up to fair value of acquired inventory (2)and \$23 million aftertax for the write-off of in-process research and development.

(3) Represents the catch-up of depreciation expense, which was suspended when the automotive glass and services business was classified previously as a discontinued operation.

(4) Represents special termination benefits and a pension curtailment loss relating to the impact of benefit changes, including accelerated vesting, negotiated as part of the sale of the automotive glass and services business.

#### **Results of Reportable Business Segments**

		Net sales	Segi	nent income (loss)
(Millions)	2009	2008	2009	2008
Performance Coatings	\$ 4,095	\$ 4,716	\$ 551	\$ 582
Industrial Coatings	3,068	3,999	159	212
Architectural Coatings EMEA	1,952	2,249	128	141
Optical and Specialty Materials	1,002	1,134	235	244
Commodity Chemicals	1,273	1,837	152	340
Glass	849	1,914	(39)	70

Performance Coatings sales decreased \$621 million or 13% in 2009. Sales declined 13% as a result of lower sales volumes, particularly in the automotive refinish business and architectural coatings Americas and Asia/Pacific businesses. The volume decline in automotive refinish was most pronounced in the U.S. and Europe, while the decline in architectural coatings was mainly in the U.S. and Latin America. Weaker foreign currency also reduced sales by 3%. Sales increased 3% due to improved pricing. Segment income in 2009 decreased \$31 million, including a decline of \$24 million due to currency. The earnings impact of lower sales volume was largely offset by favorable pricing and lower overhead, manufacturing and input costs.

Industrial Coatings sales decreased \$931 million or 23% in 2009. Sales decreased 21% due to lower sales volumes, most notably in the automotive and industrial businesses, reflecting the severe decline in demand resulting from the global recession. Volume declines in the segment occurred in all major regions. Sales also declined 3% due to the negative impact of foreign currency translation. Sales increased 1% due to increased selling prices. Segment income declined \$53 million in 2009. The decline in earnings due to lower volumes was about \$320 million. Factors increasing segment income were lower overhead, manufacturing and input costs and improved selling prices.

Architectural Coatings - EMEA sales decreased \$297 million or 13% in 2009. Sales decreased 9% due to the negative impact of foreign currency translation and 7% from lower sales volumes. Sales increased 3% due to increased selling prices. Segment income decreased \$13 million in 2009, including \$19 million due to currency. The earnings impact of lower sales volumes and inflation were more than offset by lower

overhead costs and higher selling prices and other income.

Optical and Specialty Materials sales decreased \$132 million or 12% in 2009. Sales decreased 10% due to volume, in part reflecting strong 2008 volumes associated with the launch of Transitions Optical s next generation lens product in North America. Volumes were also lower in the silicas business as a result of the slowdown in the automotive OEM market. Sales declined 2% due to the negative impact of foreign currency translation. Segment income decreased \$9 million in 2009. The decrease in segment income was primarily the result of lower sales volumes, which was partially offset by lower manufacturing and overhead costs.

Commodity Chemicals sales decreased \$564 million or 31% in 2009. Sales declined 21% due to lower selling prices, 9% due to lower sales volumes and 1% due to currency. Segment income decreased \$188 million in 2009 due to the negative impact of lower selling prices and volumes. Factors that contributed to offsetting some of the earnings decline were lower input costs, particularly energy, lower overhead costs and higher other income.

Glass sales decreased \$1,065 million or 56% in 2009. About \$725 million of the sales decrease was due to the divestiture of a majority interest in the automotive glass and services business, which was completed in September 2008. The remaining decrease in sales was due mainly to lower sales volumes in the performance glazings and fiber glass businesses, reflecting reduced construction and general industrial demand and, to a lesser extent, weaker foreign currency and lower selling prices. Segment income decreased \$109 million in 2009, with \$16 million

# Management s Discussion and Analysis

due to the absence of earnings from the divested automotive glass and services business. The remaining decline in segment earnings was due to the negative impact of lower sales volumes and lower selling prices. Lower overhead, manufacturing and input costs positively impacted segment income.

#### **Outlook**

In 2009, the global economy was mired in a severe recession which began during 2008. The severity of the recession prompted intervention by many governments to introduce a variety of stimulus measures to stabilize economies and various industries or sectors, including the banking sector due to intense global liquidity concerns. Global industrial end-markets experienced rapid declines in the fourth quarter of 2008, and many of these markets remained depressed throughout 2009. In addition, in late 2008 and early 2009, many industries destocked inventory levels which further reduced manufacturing demand. In the latter half of 2009, the majority of this inventory destocking was completed, and some end-markets began to experience gradual demand improvements from what were extremely low levels in comparison with recent history. In recognition of the global economic slowdown, prices of energy and many related commodities dramatically declined in late 2008 and early 2009, from what were, in many cases, historically high price levels directly preceding the recession.

The North American economy began 2009 at very low activity levels, with some industries, such as automotive OEM, down 40-50 percent versus the prior year level. As a result, the U.S. automotive industry experienced a significant retrenchment early in the year, and two major auto companies emerged from bankruptcy with the help of extensive government financial aid. In the second half of 2009, the automotive market experienced higher and more consistent production and sales levels, although the overall market still remained at a very low activity level. Construction markets continued to weaken as residential construction experienced a third consecutive year of slower demand, and commercial construction, which grew in 2008, declined swiftly in 2009. This overall declining economic environment resulted in a continued upward shift of the U.S. unemployment rate and further declines in consumer confidence levels. Toward the end of the year, some sectors began to experience a gradual recovery in demand but still remained at levels well below those of 2008 or 2007.

The European economy in 2009 experienced similar industrial inventory destocking and demand declines. These declines were offset somewhat with strong government stimulus programs targeted at manufacturing, including automotive production.

The primary Asian economies in which we participate started 2009 with low GDP growth largely due to fewer exports as a result of the weak global economy. Growth levels accelerated toward the middle of 2009 due largely to a variety of focused government stimulus programs in China aimed at increasing local consumption. As a result of the success of these programs, China s GDP grew at just below 9 percent for the year despite lower year-over-year exports. Also in Asia/Pacific, India experienced solid GDP growth exceeding 6 percent and Australia grew, but at less than 1 percent. For the year in total, the economies of this region well outperformed those of the other major regions of the world.

Entering 2010, the overall global economic outlook is cautiously optimistic, with expectations of gradual year-over-year improvement in many industrial sectors. It is also anticipated that growth will continue in most Asian economies driven by these global demand improvements. Modest recovery is expected to continue in the North American economy, with some offsets due to later economic cycle sectors such as commercial construction, which is projected to continue to decline, and aerospace. The recovery rate in Europe in 2010 is expected to lag that of both Asia and North America.

PPG typically experiences fluctuating prices for energy and raw materials used in many of our businesses. Price inflation has resulted from global industrial expansion, supply/demand imbalance and increases in supplier feedstock costs. Price deflation stemmed from lower economic activity and resulting supply/demand imbalances from our suppliers as was the case in 2009 when our coatings raw material costs declined about \$150 million following increases of \$150 million and \$40 million in 2008 and 2007, respectively. Our current forecast for the early portion of 2010 is for moderate raw material inflation stemming from higher global energy prices in comparison to the full year of 2009 and moderate global economic growth. Given the volatile supply/demand, energy cost and currency environment, it is not feasible to project full year raw material pricing, but the main drivers will continue to be overall economic conditions and resulting supply and demand factors.

Changes in natural gas pricing have a significant impact on the operating performance of our Commodity Chemicals and Glass businesses. Each one dollar change in our price of natural gas per million British thermal units (mmbtu) has a direct impact of \$60 million to \$70 million on our annual operating costs. Our 2009 natural gas costs averaged over \$6.00 per mmbtu for the year, while our 2008 costs averaged about \$9.00 per unit. We currently estimate our cost for natural gas in the first quarter of 2010 will be \$7.00 per mmbtu, which is roughly equal to the first quarter of 2009. We currently have about 30% of our first quarter

# Management s Discussion and Analysis

2010 U.S. natural gas purchases hedged at a price of about \$8.50 per unit, and about 25% of the remainder of 2010 at a price of about \$7.75 per unit. The current spot price for natural gas is just below \$6.00 per unit. While it remains difficult to predict future natural gas prices, in order to reduce the risks associated with volatile prices, we will continue to use a variety of techniques, which include reducing consumption through improved manufacturing processes, switching to alternative fuels and hedging.

Consistent with deflation in energy costs and because of lower end-market demand, the selling prices and profitability of our Commodity Chemicals segment dropped severely during 2009 following near all-time high levels in the fourth quarter of 2008 and first quarter of 2009. U.S. caustic demand weakened because of falling industrial production. At the end of the year, as customer inventory destocking began to diminish, demand and selling prices began to modestly recover.

Our ongoing pension and postretirement benefit costs were \$327 million in 2009, an increase of about \$100 million from 2008. These costs are expected to decline in 2010 by about \$50 million. During 2009, PPG contributions to our pension plans totaled about \$450 million, and we anticipate 2010 contributions will be about \$240 million.

The Company announced significant restructuring actions in both the third quarter of 2008 and the first quarter of 2009, in recognition of lower demand levels, that focused on reducing our cost structure, including actions associated with achieving the synergies from the integration of the acquired SigmaKalon business. The total annual savings from these actions are expected to be about \$250 million upon full implementation, including incremental savings in 2010 of about \$100 million.

We expect our tax rate in 2010 to be 30%, including a tax benefit of approximately 2% associated with the federal subsidy under Medicare Part D as described in Note 15, Pensions and Other Postretirement Benefits, under Item 8 of this Form 10-K. The tax benefit associated with the Medicare Part D subsidy could be changed by the healthcare reform legislation currently being considered by Congress.

The current global economic outlook for 2010 reflects a gradual recovery, but that outlook remains somewhat fragile due in part to the uncertainty of whether consumer spending is expected to rise enough to offset the impact of removal of government stimulus spending. As such, PPG expects to see some recovery in demand in 2010 compared with 2009 and will remain focused on continued effective cost management. The Company also entered 2010 with \$1 billion of cash on hand, which is a historically high level for the company, and follows an exemplary year of cash generation in 2009, our second highest year of cash generation on record. This strong cash performance is a direct result of lower 2009 activity levels, a management focus on lowering our working capital and the impact of several years of portfolio changes that diversified our geographic sales mix and broadened our end-markets served resulting in lower exposure to any individual end-market or region. This ability to generate high levels of cash, our prudent deployment of this cash to continuously strengthen the Company, the expected full year benefit of our recent cost restructuring actions and the expectation of a gradual economic recovery gives us optimism regarding the Company s prospects for 2010.

#### Accounting Standards Adopted in 2009

Note 1, Summary of Significant Accounting Policies, under Item 8 describes the Company s recently adopted accounting pronouncements.

#### Accounting Standards to be Adopted in Future Years

Note 1, Summary of Significant Accounting Policies, under Item 8 describes the potential impact on PPG of accounting standards that are not yet effective.

Performance in 2008 compared with 2007

#### Divestiture of Automotive Glass and Services Business

During the third quarter of 2007, the Company entered into an agreement to sell its automotive glass and services business to Platinum Equity (Platinum) for approximately \$500 million. Accordingly, the assets and liabilities of this business were classified as held for sale and the results of operations and cash flows of this business were classified as discontinued operations as of September 30, 2007. In the fourth quarter of 2007, PPG was notified that affiliates of Platinum had filed suit in the Supreme Court of the State of New York, County of New York, alleging that Platinum was not obligated to consummate the agreement. Platinum also terminated the agreement. PPG has sued Platinum and certain of its affiliates for damages, including the \$25 million breakup fee stipulated by the terms of the agreement, based on various alleged actions of the Platinum parties. While the transaction with Platinum was terminated, PPG management remained committed to a sale of the automotive glass and services business and continued to classify its assets and liabilities as held for sale and report its results of operations and cash flows as discontinued operations through the first quarter of 2008.

# Management s Discussion and Analysis

In July 2008, PPG entered into an agreement with affiliates of Kohlberg & Company, LLC, under which PPG would divest the automotive glass and services business to a new company formed by affiliates of Kohlberg. Under the agreement, PPG would receive a noncontrolling interest in the new company, and, as such, the accounting requirements for classifying the business as assets held for sale and reporting its results of operations and cash flows as discontinued operations had no longer been met. The assets and liabilities of the business were classified as held for use in the consolidated balance sheet as of December 31, 2007, and the results of operations and cash flows of the business through September 30, 2008 have been classified as continuing operations in the Glass reportable segment in the consolidated statements of income and cash flows under Item 8 of this Form 10-K for the three years ended December 31, 2009.

In the second quarter of 2008, as a result of the reclassification of the automotive glass and services business to continuing operations, PPG recorded a one-time, non-cash charge of \$17 million (\$11 million aftertax) to reflect a catch-up of depreciation expense, which was suspended when the business was classified as a discontinued operation. Additionally, in the second quarter of 2008, PPG recorded a charge of \$19 million (\$12 million aftertax) for special termination benefits and a pension curtailment loss relating to the impact of benefit changes, including accelerated vesting, negotiated as part of the sale.

The transaction with affiliates of Kohlberg was completed on September 30, 2008, with PPG receiving total proceeds of \$315 million, including \$225 million in cash and two 6-year notes totaling \$90 million (\$60 million at 8.5% interest and \$30 million at 10% interest). Both notes, which may be prepaid at any time without penalty, are senior to the equity of the new company. In addition, PPG has received a noncontrolling interest of approximately 40 percent in the new company, Pittsburgh Glass Works LLC. This transaction resulted in a third quarter 2008 gain of \$15 million pretax, net of transaction costs, and is included in Other income in the consolidated statement of income for the year ended December 31, 2008 under Item 8. The aftertax gain on the transaction was \$3 million, reflective of tax expense of \$12 million. Tax expense on the gain includes the tax cost of repatriating certain transaction proceeds from Canada to the U.S. and the impact of certain permanent book/tax differences which resulted in a larger taxable gain. PPG accounts for its interest in Pittsburgh Glass Works LLC under the equity method of accounting from October 1, 2008 onward. PPG has retained certain liabilities for pension and post-employment benefits earned for service up to September 30, 2008.

#### **Divestiture of Fine Chemicals Business**

In the third quarter of 2007, PPG entered into an agreement to sell its fine chemicals business to ZaCh System S.p.A., a subsidiary of Zambon Company S.p.A., for approximately \$65 million. The sale of this business was completed in November 2007. The results of operations and cash flows of this business, which had previously been included in the Optical and Specialty Materials reportable segment, have been classified as discontinued operations in the consolidated statements of income and cash flows under Item 8 for the year ended December 31, 2007. PPG recorded a pretax loss on sale of the fine chemicals business of \$25 million (\$19 million aftertax) in 2007.

#### **Performance** Overview

Our sales increased 30% to \$15.8 billion in 2008 compared to \$12.2 billion in 2007. Sales increased 28% due to the impact of acquisitions, 4% due to increased selling prices and 2% due to the positive effects of foreign currency translation. These sales increases were offset by a 2% decline due to lower sales volumes and by a 2% decline related to the automotive glass and services business divestiture.

Cost of sales, exclusive of depreciation and amortization, increased by \$2,327 million in 2008 to \$10,155 million compared to \$7,828 million in 2007. This increase corresponds with the increase in sales. Cost of sales as a percentage of sales was 64.1% in both 2008 and 2007. Cost of sales in 2008 includes \$94 million for the flow through cost of sales of the step up to fair value of acquired inventory related to the SigmaKalon acquisition.

Selling, general and administrative expenses increased by \$1,122 million in 2008 due principally to the impact of the acquisition of SigmaKalon. Selling, general and administrative expenses as a percentage of sales were 21.7% for 2008 compared to 18.9% for 2007. The increase in selling, general and administrative expenses as a percentage of sales was due largely to the addition of SigmaKalon and reflects the distribution nature of these businesses, which requires higher selling, distribution, advertising and regional management costs to serve their broad customer profile. Selling, general and administrative expenses as a percent of sales in the Architectural Coatings - EMEA reportable segment are in line with PPG s other architectural coatings businesses. Other factors causing the increase in these expenses were higher levels of cost to support growth in our coatings and optical businesses, higher bad debt expense associated with the impact of the weakening economy on our customers, a second quarter charge of \$19 million for special termination benefits and foreign currency translation.

# Management s Discussion and Analysis

Depreciation expense increased by \$83 million due primarily to the acquisition of SigmaKalon. Research and development costs increased by \$103 million and amortization increased by \$77 million compared to 2007. These increases were primarily due to the acquisition of SigmaKalon. Interest expense increased by \$161 million in 2008 due to debt incurred to finance the acquisition of SigmaKalon.

During the third quarter of 2008, the Company finalized a restructuring plan that is part of implementing PPG s global transformation strategy and the integration of its acquisition of SigmaKalon. The Company recorded a charge of \$163 million for the cost of this restructuring.

The effective tax rate on pretax earnings from continuing operations in 2008 was 31.3% compared to 29.1% in 2007. The 2008 rate includes a tax benefit of \$14 million related to the settlement with the Internal Revenue Service of our U.S. tax returns for tax years 2004, 2005 and 2006. The 2008 rate also includes a total net tax benefit of 26.5% on costs related to the acquisition of SigmaKalon, the charges for the catch-up of depreciation expense and the impact of benefit changes related to the divestiture of the automotive glass and services business, the business restructuring charge, the adjustment to increase the current value of the Company s obligation under the proposed asbestos settlement and the gain on divestiture of the automotive glass and services business. The tax rate was approximately 31% on the remaining pretax earnings in 2008.

The rate in 2007 includes the benefit of \$15 million for the reversal of a valuation allowance previously recorded against the benefit of a tax net operating loss carryforward, the benefit associated with an enacted reduction in the Canadian federal corporate income tax rate and a tax benefit of 39% on the adjustment to increase the current value of the Company s obligation under the proposed asbestos settlement. The tax rate was 30.5% on the remaining pretax earnings from continuing operations in 2007.

The effective tax rate on pretax earnings from discontinued operations in 2007 was 25.2%. The rate in 2007 included a tax benefit of 24% on the loss on the sale of the fine chemicals business. The tax rate was 36.5% on the remaining pretax earnings from discontinued operations in 2007.

Net income and earnings per share assuming dilution for 2008 and 2007 are summarized below:

(Millions, except per share amounts)		
Year ended December 31, 2008	Net Ir	псоте
	\$	EPS
Net income	\$ 538	\$ 3.25
Net income includes:		
Charges related to:		
Business restructuring	110	0.67
Acquisition-related costs <sup>(1)</sup>	89	0.54
Depreciation catch-up <sup>(2)</sup>	11	0.07
Divestiture-related benefit costs <sup>(3)</sup>	12	0.07
Asbestos settlement nét	2	0.01
Gain on divestiture of automotive glass and		
services business	(3)	(0.02)

services business

# (Millions, except per share amounts)

Year ended December 31, 2007	Net In	псоте
	\$	EPS
Net income	\$ 834	\$ 5.03
Net income includes:		
Charges related to:		
Asbestos settlement nét	15	0.09
Acquisition-related costs <sup>(5)</sup>	4	0.03
Divestiture-related benefit costs <sup>(6)</sup>	11	0.06
Loss on divestiture of fine chemicals business	19	0.11

(1) Costs related to SigmaKalon acquisition, including \$66 million aftertax for the flow-through cost of sales of the step up to fair value of acquired inventory and \$23 million aftertax for the write-off of in-process research and development.

(2)Represents the catch-up of depreciation expense, which was suspended when the automotive glass and services business was classified previously as a discontinued operation.

(3) Represents special termination benefits and a pension curtailment loss relating to the impact of benefit changes, including accelerated vesting, negotiated as part of the sale of the automotive glass and services business.

- Net increase in the current value of the Company s obligation under the proposed asbestos settlement. (4)
- (5) Costs related to Barloworld Coatings Australia acquisition for the flow-through cost of sales of the step up to fair value of acquired inventory.
- (6) Represents curtailment losses on certain defined benefit plans of the automotive glass and services business.

#### **Results of Reportable Business Segments**

		Net sales	1	Segment income
(Millions)	2008	2007	2008	2007
Performance Coatings	\$ 4,716	\$ 3,811	\$ 582	\$ 563
Industrial Coatings	3,999	3,646	212	370
Architectural Coatings EMEA	2,249		141	
Optical and Specialty Materials	1,134	1,029	244	235
Commodity Chemicals	1,837			

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