

PPG INDUSTRIES INC
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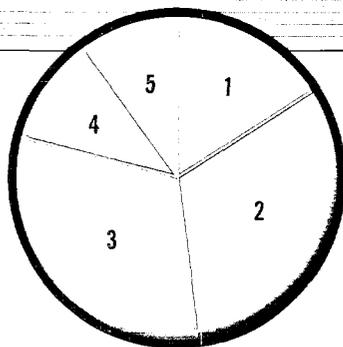
Annual Report and Form 10-K

PPG Industries, Inc.

AT A GLANCE

Established in 1883, PPG Industries is a leading diversified manufacturer that supplies its products and services around the world. The company makes protective and decorative coatings, sealants, adhesives, metal pretreatment products, flat glass, fabricated glass products, continuous-strand fiber glass products, and industrial and specialty chemicals—including photochromic ophthalmic lenses, optical monomers, silicas and fine chemicals.

With headquarters in Pittsburgh, PPG has 118 manufacturing facilities and equity affiliates in Argentina, Australia, Brazil, Canada, China, England, France, Germany, India, Ireland, Italy, Japan, Malaysia, Mexico, the Netherlands, the Philippines, South Korea, Spain, Taiwan, Thailand, Turkey, the United States and Venezuela.



MARKETS SERVED BY PPG

Approximate Percent of Sales in 2002

- | | |
|--|---------------------------------|
| 1 Consumer 16% | 3 New Vehicles and Aircraft 31% |
| 2 Service, Maintenance and Aftermarket 32% | 4 Industrial 11% |
| | 5 New Construction 10% |

Segment Net Sales in 2002: Coatings 55%, Glass 26%, Chemicals 19%

PPG'S TECHNOLOGIES

Aerospace. Global supplier of sealants, coatings and application systems and world's leading supplier of cockpit transparencies, serving original equipment manufacturers and the maintenance market for the commercial, military and general aviation industries. Also manufactures sealants for architectural insulating glass units. 2, 3, 5

Architectural Coatings. Under the *Pittsburgh Paints*, *Olympic*, *Porter*, *Monarch*, *Lucite* and *PPG HPC* (High Performance Coatings) brands, this unit produces paints, stains and specialty coatings for commercial, maintenance and residential markets. 2, 4, 5

Automotive Coatings. Global supplier of automotive coatings and services to auto and truck manufacturers. Products include primers, base coats, topcoats, pretreatment chemicals, adhesives and sealants. 3

Automotive OEM Glass. Produces original equipment windshields, rear and side windows and related assemblies for auto and truck manufacturers. 3

Automotive Refinish. Produces a full line of coatings products for automotive repair and refurbishing and specialty coatings for sign and fleet markets. Also responsible for *CertifiedFirst* Network in auto body repair market. 2, 4

Automotive Replacement Glass. Fabricates replacement windshields and rear and side windows. Also responsible for *PPG*

PROSTARS marketing alliance in the retail auto glass replacement market. 2

Chlor-Alkali and Derivatives. A world leader in the production of chlorine, caustic soda and related chemicals for use in chemical manufacturing, pulp and paper production, water treatment, plastics production and many other products. 1, 2, 3, 4, 5

Fiber Glass: Electronic and Specialty Materials. Maker of fiber glass yarn for use in electronics, especially printed circuit boards. Specialty materials are used in applications such as medical casts, tape, thermal insulators, insect screening and other building products. 1, 2, 3, 4, 5

Fiber Glass: Reinforcements. Produces fiber glass used as a reinforcing agent in thermoset and thermoplastic composite applications. End products include recreational boats, shower units, whirlpools and auto parts. 1, 2, 3, 4, 5

Fine Chemicals. Produces advanced intermediates and bulk active ingredients for the pharmaceutical industry, and phosgene derivatives used in plastics, agricultural, pharmaceutical and other industries. 1, 4

Flat Glass. Produces flat glass that is fabricated into products primarily for the residential, construction, appliance, mirror and transportation industries. 1, 2, 5

Industrial Coatings. Manufactures a wide variety of coatings for industrial uses, including appliance, agricultural and

construction equipment, consumer electronics, heavy-duty trucks, automotive parts and accessories, coil, aluminum extrusion, wood flooring and recreation. 1, 2, 3, 4, 5

Insurance & Services. An array of service businesses linking the automotive aftermarket and the insurance industry. Includes *LYNX Services*, a wholly owned subsidiary, offering a variety of claims management solutions and call center services to leading insurance companies. 2

Optical Products. Produces optical monomers, photochromic dyes, *Transitions* photochromic ophthalmic plastic eyewear and *Trivex* lens material. 1

Packaging Coatings. Global supplier of coatings, inks, compounds and chemicals for metal and plastic containers for the beverage, food, general line and specialty packaging industries. 1

Silicas. Produces more than 100 varieties of amorphous silicas used as free-flow agents in products such as salt, reinforcing agents in tires and other rubber products, abrasives in toothpaste and flattening agents in paints. Also manufactures *Teslin* synthetic printing sheet. 1, 2, 3, 4

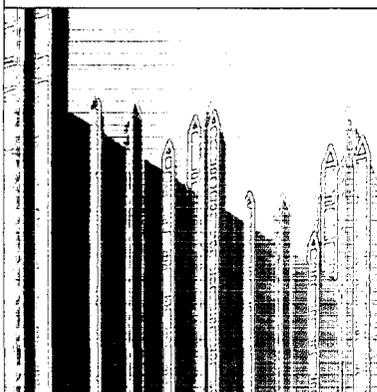


Responsible Care
Good Chemistry at Work



CONTENTS

LETTER FROM THE CHAIRMAN	2
BOARD OF DIRECTORS/CORPORATE DIRECTORY	8
FORM 10-K	9
MANAGEMENT'S DISCUSSION AND ANALYSIS	17
FINANCIAL AND OPERATING REVIEW	26
ELEVEN-YEAR DIGEST	58
PPG SHAREHOLDER INFORMATION	59



FINANCIAL HIGHLIGHTS 2002

FOR THE YEAR	2002	CHANGE	2001
Net sales	\$8,067	-1%	\$8,169
Net (loss) income			
As reported	\$(69)	-118%	\$387
Nonrecurring charges*	\$545	--	\$71
Excluding nonrecurring charges	\$476	4%	\$458
(Loss) earnings per share**			
As reported	\$(0.41)	-118%	\$2.29
Nonrecurring charges*	\$3.21	--	\$4.21
Excluding nonrecurring charges	\$2.80	3%	\$2.71
Dividends per share	\$1.70	1%	\$1.68
Return on average capital†	.3%	-96%	8.4%
Operating cash flow	\$872	-18%	\$1,060
Capital spending—including acquisitions	\$260	-14%	\$301
Research and development	\$289	2%	\$283
Average shares outstanding**	169.9	0%	169.2
Average number of employees	34,100	-2%	34,900

AT YEAR END

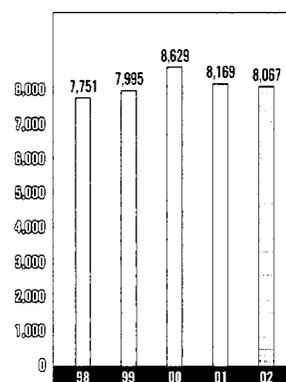
Working capital	\$1,025	37%	\$748
Shareholders' equity	\$2,150	-30%	\$3,080
Shareholders (at Jan. 31, '03 and '02)	28,704	-1%	29,005

Average shares outstanding and all dollar amounts except per share data are in millions.

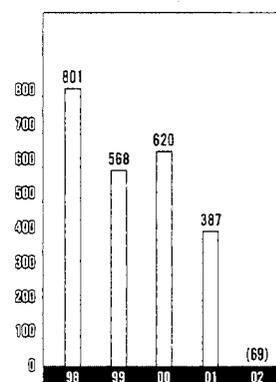
* Includes in 2002 aftertax charges of \$484 million, or \$2.85 a share, representing the estimated cost of the asbestos settlement; \$9 million, or 5 cents a share for the cumulative effect of an accounting change; and \$52 million, or 31 cents a share, for restructuring. Includes in 2001 an aftertax charge of \$71 million, or 42 cents a share, for restructuring.

** Assumes dilution

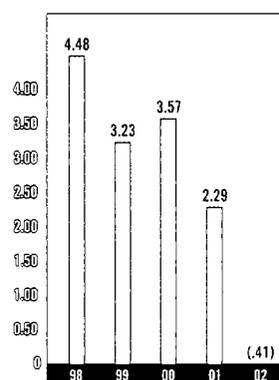
† Excludes the cumulative effect of the accounting change



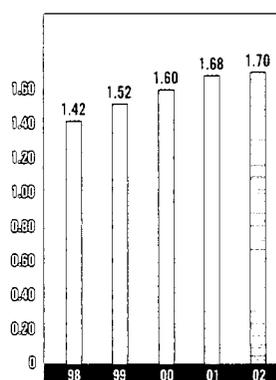
NET SALES
Millions of Dollars



NET INCOME
Millions of Dollars



EARNINGS PER SHARE**
Dollars



DIVIDENDS PER SHARE
Dollars

LETTER FROM THE CHAIRMAN

To Our Shareholders:

Weakness in most global markets continued to dampen our financial performance in 2002. On the heels of 2001, which saw the United States' worst industrial recession in nearly 20 years, industrial activity was down another 1 percent in 2002. Industrial production in the European Union, meanwhile, was down for a second consecutive year, off more than 1 percent in 2002.

Despite these challenging conditions, as well as rising benefits costs, we increased our net income excluding nonrecurring charges by 4 percent, thanks largely to our continuous focus on reducing costs and generating cash. This was more than off set, however, by three one-time aftertax charges. Most significant was the charge of \$484 million, or \$2.85 a share, for an asbestos settlement agreement. Although no small amount, this settlement will benefit our company and its shareholders by lifting the cloud of uncertainty and concern among investors. The two other charges were \$52 million, or 31 cents a share, to reduce costs by restructuring our work force further and closing

"2002 MARKED THE
31ST CONSECUTIVE
YEAR OF INCREASED
SHAREHOLDER
PAYMENTS, WHICH
INDICATES OUR CASH
FLOW IS GOOD EVEN
IN BAD TIMES. PPG HAS
PAID UNINTERRUPTED
DIVIDENDS SINCE 1899."



Representatives from the team of researchers that developed Next Generation Transitions Lenses are recognized by PPG executive management. From left: Clara Nelson, senior research chemist, photochromics research; Kevin Stewart, senior research associate, photochromics research; Lisa Walters, operations manager, specialty synthesis group; Randy Daughenbaugh, senior research chemist, photochromics research; Raymond W. LeBoeuf, chairman and chief executive officer; Anu Chopra, senior research chemist, photochromics research; Jennifer Shumaker, intermediate technician, photochromics testing group; Charles E. Bunch, president and chief operating officer; and Bruce Anderson, development manager, specialty synthesis group.



Transitions®

Right in any light.

Next Generation Transitions Lenses, worn here by Donna Pahel-PPG-Webmaster, are as clear as regular eyeglasses indoors, but outdoors darken as much as necessary, even getting as dark as sunglasses.

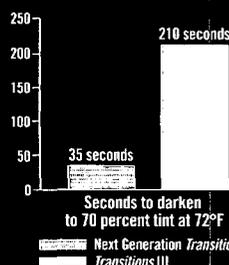
Launched in January 2002, Next Generation Transitions Lenses adjust to changing light so easily that eyeglass wearers see clearly and more comfortably in virtually any light condition. They work so well that four out of five eyeglass wearers in a clinical study preferred Transitions Lenses to their regular lenses.

Next Generation Transitions Lenses represent the most advanced lens technology ever developed. They are another reason why PPG continues to be the world leader in the photochromic plastic lens marketplace, which PPG's optical products business pioneered in the 1990s with the introduction of Transitions Lenses.

FASTEST

Next Generation Transitions Lenses darken and fade back the fastest of any photochromic lens.

The lightweight lenses grow darker six times faster than previous generation (see chart at right) and fade back three-and-a-half times faster.



facilities or parts of facilities no longer needed as a result of improved business processes, and \$9 million, or 5 cents a share, for the cumulative effect of a required accounting change.

As a result of all this, PPG reported a net loss of \$69 million, or 41 cents a share. Excluding these items, net income increased to \$476 million, or \$2.80 a share. Sales were \$8.1 billion. Reported net income in 2001 was \$387 million, or \$2.29 a share, including a \$71 million aftertax restructuring charge, equaling 42 cents, on \$8.2 billion in sales.

We knew a year ago that an accounting change would benefit net earnings by about \$30 million and increasing pension and retiree medical benefits costs would burden us by about \$86 million. Despite this \$56 million headwind, we recorded an \$18 million increase in net income excluding nonrecurring charges amid a difficult environment.

More details about our financial performance are available beginning on page 9. As a convenience for shareholders and others, this year we have included in this publication our Form 10-K, previously available as a separate document.

2002 marked the 31st consecutive year of increased shareholder payments, which indicates our cash flow is good even in bad times. PPG has paid uninterrupted dividends since 1899. Over time, our goal is to sustain our dividend at about one-third of earnings per share.

Despite the difficult environment, we took several important steps in 2002 to position the company to reach new heights when industrial activity expands globally. We reduced manufacturing and overhead costs by about \$140 million and paid down debt by more than \$400 million. As I mentioned earlier, we also reached agreement with participating insurers and representatives of claimants for the settlement of all current and future personal injury claims against PPG and Pittsburgh Corning for asbestos products manufactured, distributed or sold by both companies. Our asbestos claims exposure, which analysts and shareholders said was a depressant to our stock price, results primarily from our 50-percent ownership position in Pittsburgh Corning.

Although we continue to believe we're not responsible for Pittsburgh Corning's products, the potential for large verdicts

that some other companies have experienced with asbestos litigation made it prudent for us to resolve this issue with finality at what we believe is an affordable price.

Since 1997 our objective has been to increase the earnings growth and consistency of PPG. Our primary method for achieving those results has been to build a better business mix, mostly by investing in our coatings segment, which historically has enjoyed better margins, lower capital requirements and less cyclical performance than our two other segments. During the past six years we invested nearly \$2 billion in coatings acquisitions, most of which, under previous ownership, operated at lower margins than the industry-leading levels of our coatings businesses. Throughout the integration process, the more costs we eliminated, the more opportunities we identified to eliminate additional costs. Thanks largely to cost reductions, coatings' operating earnings in 2002 were up about 20 percent over 2001 on a 2-percent increase in sales. Furthermore, operating margins increased by about two points in 2002 to 15.1 percent, excluding restructuring. We expect that actions related to the restructuring charge we booked in 2002 will further improve our performance in coatings, which now accounts for 55 percent of sales and 72 percent of operating earnings, compared with 41 percent and 44 percent, respectively, in 1997.

ETHICS

It is likely that the global economy will continue to experience ups and downs and our businesses will continue to change as they have throughout our 120 years, but one aspect of our company has thankfully remained unchanged...our culture. During the last half of the '90s, as the so-called New Economy companies soared, PPG stayed the course, refusing to engage in any questionable business practices that seemed to characterize this period. Never was that steadfast commitment to ethics more valued than in 2002, when it seemed each day brought news of another company committing another shameful act. I take great pride in being a PPG employee and great comfort in knowing this organization is committed to operating at the highest levels of honesty and integrity.

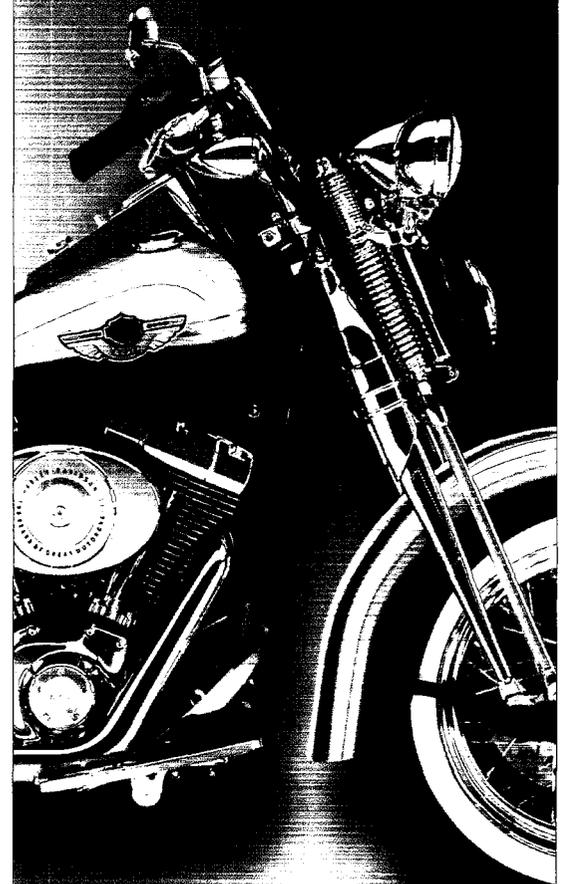
In the wake of scandals throughout corporate America, many companies have created the position of chief ethics officer, a job sometimes referred to by its initials. PPG, on the other hand, has had such an officer for years, and that person is *the* CEO. As with previous CEOs, I have accepted responsibility for making

"Some of the most beautiful paint ever applied to metal ... Paint you could stare at the next 100 years ... Never has a paint line created anything like this before ..."

That's how Harley-Davidson describes the special paint PPG prepared for the motorcycle maker's 100th anniversary motorcycle. Virtually every one of its motorcycles sold since 1991 is finished with PPG paint, but Harley-Davidson worked with the company to develop a uniquely stunning paint job for its 100th Anniversary models. Working closely with the styling department at Harley-Davidson, PPG developed a chrome-like sterling silver coating for the legendary motorcycles.

An ultra-thin silver paint applied over a smooth black basecoat and covered by a clearcoat provides the mar-resistant, high-gloss, liquid metal appearance that Harley-Davidson wanted for the motorcycles' metal and plastic parts.

"We wanted to deliver a look that would reinforce the special nature of these 100th Anniversary models, something really special for our customers," the company said.



ethics an uncompromising, top priority. The commitment to ethics in any organization must begin at the very top, and I can assure you it does here at PPG.

With ethics as our cornerstone, our culture is focused on performance — for shareholders, customers and society. Our *dedication to the customer* and our commitments to *research and development, quality and environment, health and safety* form the strategic direction for our company and position us to generate sustainable value over the long term for PPG and its constituents.

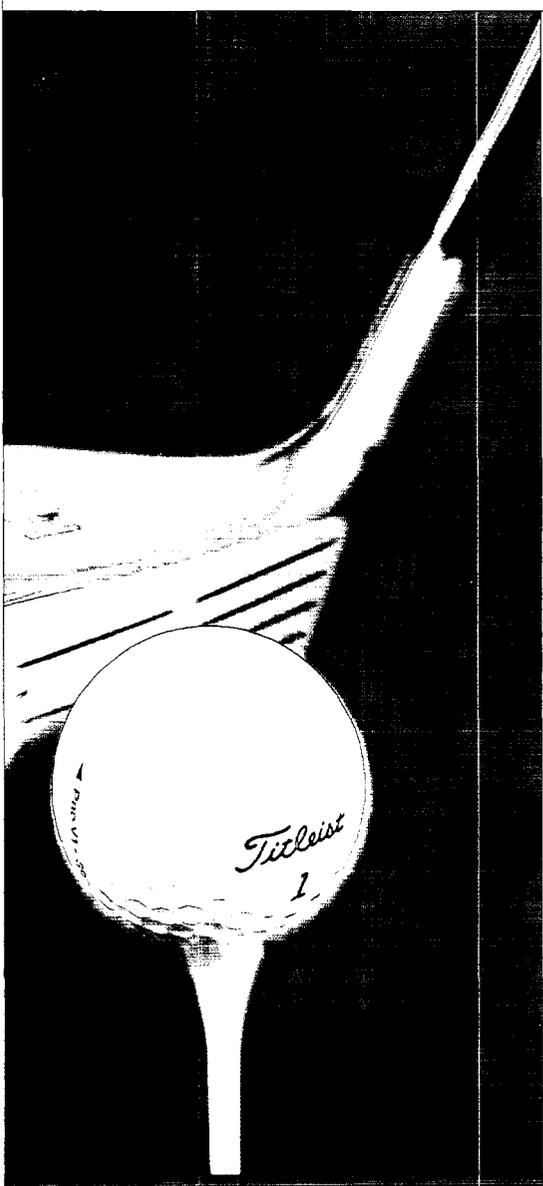
DEDICATION TO THE CUSTOMER

Our dedication to customers and their requirements is relentless. On these pages you will find several examples of how we meet customer expectations in ways that only PPG can. For example, when Harley-Davidson wanted to achieve a one-of-a-kind appearance for its 100th Anniversary motorcycles, it worked with PPG's technical experts for a chrome-like "sterling silver" coating. This liquid-metal look has been a contributing factor in the enormous demand for these limited-edition motorcycles.

When Titleist, the world's premier maker of golf balls, needed a supplier for its high performance yet soft and thin urethane elastomeric cover, it turned to PPG, which has a long association with one of the most recognized brand names in the sport. Our castable urethane combines a high performance feel with abrasion-resistant durability that has made the *Pro V1* ball popular with touring pros and golfers everywhere.

RESEARCH AND DEVELOPMENT

Of course, one of the key ways PPG meets the requirements of Harley-Davidson, Titleist and others is through the use of research and technology, the building blocks of this company's success since 1883. With the introduction of *Transitions* Lenses through our joint venture Transitions Optical in the '90s, the demand for our plastic photochromic technology has been strong because eyeglass wearers value the lenses' ability to darken when exposed to ultraviolet light and become clear when indoors. Many, however, told us they wished the lenses could grow darker and lighter in less time and, thanks to our team of scientists and engineers, in early 2002 we introduced Next Generation *Transitions* Lenses, the fastest variable-tint lenses on the market.



Competing on worldwide professional tours demands distance, precision and consistency. That's why at every level of competitive golf, more players trust Titleist, the undisputed technology and performance leader. The tour-proven Titleist Pro V1 golf ball features large solid core, multicomponent and high-performance urethane elastomer cover technologies. Supplied by PPG, the urethane elastomer cover material of the Pro V1 provides exceptional soft feel along with shear and abrasion resistant durability. Long a supplier of paints for Titleist golf balls, PPG manufactures the castable urethane at its Oak Creek, Wis., coatings plant.

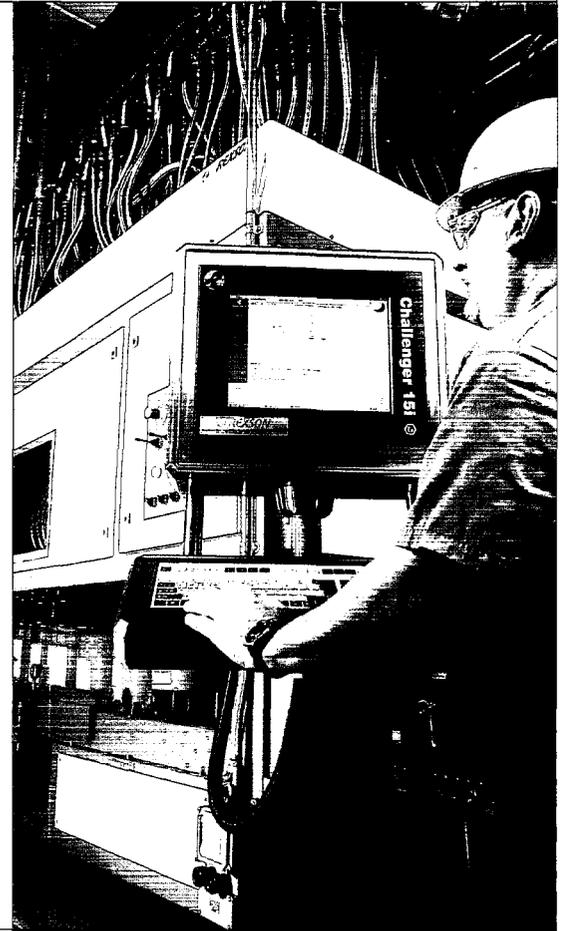
Another example of PPG's technical excellence is its lead-free *FrameCoat* electrodeposition coating for automotive and light truck chassis components. Traditionally, these parts were coated with hot wax, providing corrosion protection for one to three years. *FrameCoat* coating meets original equipment manufacturers' requirements for 10-year corrosion protection. The coating cures at low temperatures, is free of hazardous air pollutants and very low in volatile organic compounds. *FrameCoat* coating received an R&D 100 award in 2002, marking the seventh time in as many years that a PPG technology has been named one of the most significant technological breakthroughs in new products and processes worldwide by *R&D* magazine.

QUALITY

Another hallmark of PPG's culture is our commitment to the continuous improvement of products and processes, enhancing quality, reducing waste and eliminating costs. A perfect example of this effort is our use of automated dispense cells, which you can learn more about on this page. This technology combines the use of the *Sigma Logic* methodology, our statistical-based approach to reducing variation in products and processes, and the Lean Enterprise methodology for ensuring the continuous flow of product to the customer. Automated dispense cells are just one of hundreds of initiatives, big and small, day in and day out, that PPG pursues in its continuous quest to improve quality.

ENVIRONMENT, HEALTH, SAFETY

Our focus on continuous improvement also extends to our performance in the areas of environment, health and safety. In 2002 we implemented globally the PPG Injury and Illness Rate, an additional safety performance measure that we believe is a more statistically valid method for identifying and reducing risk than historical measures. Our automotive flat glass plant in Meadville, Pa., was named a member of a U.S. Environmental Protection Agency's National Environmental Performance Track, a program designed to recognize facilities whose performance extends beyond compliance with environmental laws. And in 2002, Pittsburgh Paints' brand *Pure Performance* paint, a low-odor, premium interior latex coating that contains no volatile organic compounds (VOC), won a Pennsylvania Governor's Award for Environmental Excellence and was voted one of the Top 10 Green Building Products of 2002 by BuildingGreen, Inc.



Operator Rich Miller monitors the manufacture of paint at an automated dispense cell in PPG's Springdale, Pa., coatings facility.

New technology enables PPG to make and ship small, custom-made batches of industrial paint seven times faster than traditional methods.

PPG uses automated dispense cells to fill orders for small amounts of paint (five to 1,000 gallons) within 48 hours — a dramatic improvement over the industry's customary two-week span. Computer-driven cells eliminate time-consuming premixing of resins, pigments, solvents and additives. Instead, ingredients are automatically drawn from individual storage vats in exact proportions to meet customer specifications for use in coating appliances, automotive products, cellular phones, computers, building products and other products.

Environmentally friendly, closed-loop dispense cells eliminate waste, reduce storage and ensure customers get the exact amount of paint, exactly when they need it — the paint is mixed directly in its shipping container — something unheard-of before dispense cells.



Mountaintop trees in central Mexico become colorful roosts laden with monarch butterflies.

Employees at PPG's Monroeville, Pa., chemicals research and development center have teamed with their peers at the company's San Juan del Rio, Mexico, coatings plant to study the migration of the monarch butterfly.

Monroeville employees cultivated a butterfly meadow where they volunteer with teachers and students to attract, tag and release monarch butterflies for the annual migration to a mountaintop reserve near San Juan del Rio. An estimated 25 million monarch butterflies winter at the reserve.

Employees in Mexico are hosting a Monroeville area teacher contingent to better understand the colorful insects' migration and roosting habits. Results will be shared with Monarch Watch, headquartered at the University of Kansas, which is dedicated to the scientific study of the butterfly's migration.

Employees at many PPG facilities are actively involved with volunteer efforts regarding science and education.



PPG volunteers carefully tag and release the monarch butterfly.

BUNCH ELECTED PRESIDENT

No one knows PPG's culture better, or appreciates it more, than Charles E. Bunch, who was elected to our board of directors in 2002 in addition to being named president and chief operating officer. Chuck is well-suited for his new role, having served in a variety of key operating and staff roles in the United States and Europe throughout his 23 years with the company. He has experience in our glass, fiber glass and coatings businesses, and has been a key player in our efforts to build a better mix of businesses. Joining the board of directors in March of 2003 was Robert Ripp, chairman of Lightpath Technologies, a manufacturer of optical lens and module assemblies for the telecommunications sector, and former chairman and chief executive officer of AMP, an electrical products company. Bob's expertise and insights will be assets in the leadership of our company.

After 37 years of service, Frank A. Archinaco, executive vice president, glass and chemicals, retired in 2002. And Steven C. Mason, director since 1990, will step down from the board at the shareholders meeting in April. On behalf of everyone at PPG, I thank both for their many contributions.

Despite a number of geo-political uncertainties, I'm hopeful economic activity will increase in 2003, albeit at a slow pace. We will, however, have the challenge of overcoming expected increases in pension and retiree benefit costs of about \$80 million aftertax. That's why we will continue to focus on reducing costs, generating cash and reducing debt while positioning ourselves to grow earnings from the businesses and technologies we know best.

Few companies are as skilled at managing throughout the economic cycle as PPG, and with your continued support, I'm confident we will continue our tradition of growth over the course of a business cycle.

Raymond W. LeBoeuf
Chairman and Chief Executive Officer

BOARD OF DIRECTORS



James G. Berges

James G. Berges, 55, is president of Emerson Electric, a global manufacturer providing products, systems and services for industrial automation; process control; heating, ventilating and air conditioning; electronics and communications; and appliances and tools. A PPG director since 2000, he is also a director of Emerson Electric and MKS Instruments.

- Audit Committee
- Nominating and Governance Committee



Charles E. Bunch

Charles E. Bunch, 53, is president and chief operating officer of PPG Industries. A PPG director since August 2002, he is also a director and deputy chairman of the Federal Reserve Bank of Cleveland.



Erroll B. Davis Jr.

Erroll B. Davis Jr., 58, is chairman, president and chief executive officer of Alliant Energy, an electric, gas and water utility company. A PPG director since 1994, he is also a director of Alliant Energy and BP plc.

- Audit Committee
- Investment Committee



Michele J. Hooper

Michele J. Hooper, 51, is former president and chief executive officer of Voyager Expanded Learning, a company that develops and implements learning programs and teacher training for public schools. A PPG director since 1995, she is also a director of Target.

- Audit Committee
- Nominating and Governance Committee



Allen J. Krowe

Allen J. Krowe, 70, is a retired director and vice chairman of Texaco, an international petroleum company. A PPG director since 1987, he is also a director of Navistar International.

- Nominating and Governance Committee
- Investment Committee



Raymond W. LeBoeuf

Raymond W. LeBoeuf, 56, is chairman of the board and chief executive officer of PPG Industries. A PPG director since 1995, he is also a director of Praxair and ITT Industries.



Steven C. Mason

Steven C. Mason, 57, is retired chairman of the board and chief executive officer of Mead, a forest products company. A PPG director since 1990, he is also a director of Convergys and The Elder-Beerman Stores.

- Audit Committee
- Officers-Directors Compensation Committee



Robert Mehrabian

Robert Mehrabian, 61, is chairman, president and chief executive officer of Teledyne Technologies, a provider of sophisticated electronic components, instruments and communication products, systems engineering solutions, aerospace engines and components and on-site gas and power generation systems. A PPG director since 1992, he is also a director of Teledyne Technologies and Mellon Financial.

- Audit Committee
- Officers-Directors Compensation Committee



Thomas J. Usher

Thomas J. Usher, 60, is chairman of the board, president and chief executive officer of U.S. Steel, a major producer of metal products. A director of PPG since 1996, he is also a director of Marathon Oil, PNC Financial Services Group and H.J. Heinz.

- Officers-Directors Compensation Committee
- Investment Committee



David R. Whitwam

David R. Whitwam, 61, is chairman of the board and chief executive officer of Whirlpool, a manufacturer and distributor of household appliances and related products. He has been a director of PPG since 1991.

- Nominating and Governance Committee
- Officers-Directors Compensation Committee



Robert Ripp

Robert Ripp, 61, is chairman of Lightpath Technologies, a manufacturer of optical lens and module assemblies for the telecommunications sector, and former chairman and chief executive officer of AMP, an electrical products company. A PPG director since March 1, 2003, he is also a director of ACE Limited, an insurance company.

CORPORATE DIRECTORY

EXECUTIVE COMMITTEE

Raymond W. LeBoeuf, *Chairman and Chief Executive Officer*
 Charles E. Bunch, *President and Chief Operating Officer*
 James C. Diggs, *Senior Vice President and General Counsel*
 William H. Hernandez, *Senior Vice President, Finance*

OTHER OFFICERS

J. Rich Alexander, *Vice President, Industrial Coatings*
 Douglas B. Atkinson, *Vice President, Investor Relations*
 Werner Baer, *Vice President, Information Technology*
 Richard A. Beuke, *Vice President, Architectural Coatings*
 David C. Cannon Jr., *Vice President, Environment, Health and Safety*
 David B. Church, *Vice President, Chlor-Alkali and Derivatives*
 Richard C. Elias, *Vice President, Optical Products*
 Aziz S. Giga, *Vice President, Strategic Planning*
 Jeffrey R. Gilbert, *Vice President, Government and Community Affairs*
 Garry A. Goudy, *Vice President, Automotive Refinish*
 Gerald W. Gruber, *Vice President, Science and Technology*
 Michael C. Hanzel, *Secretary and Corporate Counsel*
 Victoria M. Holt, *Vice President, Fiber Glass*
 Dennis A. Kovalsky, *Vice President, Automotive Coatings*
 Susan M. Kreh, *Treasurer*
 Michael A. Ludlow, *Senior Vice President, OEM Coatings*
 Barry J. McGee, *Vice President, Automotive OEM Glass*
 Kathleen A. McGuire, *Vice President, Purchasing and Distribution*
 David P. Morris, *Vice President, Aerospace Products*
 David B. Navikas, *Vice President and Controller*
 Mark J. Orcutt, *Vice President, Flat Glass*
 Maurice V. Peconi, *Vice President, Corporate Development*
 David E. Sharick, *Vice President, Automotive Replacement Glass*
 Kevin F. Sullivan, *Vice President, Chemicals*
 Marc P. Talman, *Vice President, Packaging Coatings*
 Donna Lee Walker, *Vice President, Tax Administration*
 Charles W. Wise, *Vice President, Human Resources*
 William A. Wulfsohn, *Vice President, Coatings, Europe and Managing Director, PPG Europe*

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, 2002

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)25-0730780
(I.R.S. Employer
Identification No.)One PPG Place, Pittsburgh, Pennsylvania
(Address of principal executive offices)15272
(Zip code)

Registrant's telephone number, including area code:

412-434-3131

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

<u>Title of each class</u>	<u>Name of each exchange on which registered</u>
Common Stock—Par Value \$1.66 ² / ₃	New York Stock Exchange Pacific Stock Exchange Philadelphia Stock Exchange
Preferred Share Purchase Rights	New York Stock Exchange Pacific Stock Exchange Philadelphia Stock Exchange

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

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 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.

Indicate by check mark whether the Registrant is an accelerated filer (as defined in Rule 12b-2 of the Act). YES NO

The aggregate market value of common stock held by non-affiliates at June 30, 2002 was \$10,450 million.

As of January 31, 2003, 169,512,843 shares of the Registrant's common stock, with a par value of \$1.66²/₃ per share, were outstanding. As of that date, the aggregate market value of common stock held by non-affiliates was \$8,265 million.

DOCUMENTS INCORPORATED BY REFERENCE

<u>Document</u>	<u>Incorporated By Reference In Part No.</u>
Portions of PPG Industries, Inc. Proxy Statement for its 2003 Annual Meeting of Shareholders	III

**PPG INDUSTRIES, INC.
AND CONSOLIDATED SUBSIDIARIES**

As used in this report, the terms "PPG," "Company," and "Registrant" mean PPG Industries, Inc. and its subsidiaries, taken as a whole, unless the context indicates otherwise.

TABLE OF CONTENTS

	<u>Page</u>
<i>Part I</i>	
Item 1. Business	11
Item 2. Properties	13
Item 3. Legal Proceedings	13
Item 4. Submission of Matters to a Vote of Security Holders	14
<i>Part II</i>	
Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters	15
Item 6. Selected Financial Data	16
Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations	17
Item 7a. Quantitative and Qualitative Disclosures About Market Risk	25
Item 8. Financial Statements and Supplementary Data	26
Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure	51
<i>Part III</i>	
Item 10. Directors and Executive Officers of the Registrant	51
Item 11. Executive Compensation	51
Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	51
Item 13. Certain Relationships and Related Transactions	51
<i>Part IV</i>	
Item 14. Controls and Procedures	52
Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K	52
Signatures	54
Certifications	55

Note on Incorporation by Reference

Throughout this report, various information and data are incorporated by reference to the Company's 2002 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 three basic business segments: coatings, glass and chemicals. Within these business segments, PPG has followed a program of directing its resources of people, capital and technology into selected areas to build upon positions of leadership. Areas in which resources have been focused are automotive original, refinish, industrial, aerospace, packaging, and architectural coatings; flat glass, automotive original and replacement glass, continuous-strand fiber glass; and chlor-alkali and specialty chemicals. Each of the businesses in which PPG is engaged is highly competitive. However, the diversification of product lines and worldwide markets served tend to minimize the impact on total sales and earnings of changes in demand for a particular product line or in a particular geographic area. Reference is made to Note 22, "Business Segment Information," under Item 8 of this Form 10-K for financial information relating to business segments.

Coatings

PPG is a major supplier of protective and decorative coatings. 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 customer service have been stressed by PPG and have been significant factors in developing an important supplier position.

The coatings business involves the supply of protective and decorative finishes for automotive original equipment, appliances, industrial equipment and packaging; factory-finished aluminum extrusions and coils; aircraft; and other industrial and consumer products. In addition to supplying finishes to the automotive original equipment market, PPG supplies automotive refinishes to the aftermarket, which are primarily sold through distributors. In addition to specific products, PPG supplies technical expertise, engineering and purchasing services to the automotive original and industrial portions of the business. In the automotive original and industrial portions of the coatings business, PPG sells directly to a variety of manufacturing companies. Automotive original and industrial coatings are formulated specifically for the customer's needs and application methods. PPG also supplies adhesives and sealants for the automotive industry and metal pretreatments and related chemicals for automotive and industrial applications. The packaging portion of the coatings business supplies finishes for aerosol, food and beverage containers for consumer products. Product performance, technology, quality and customer service are major competitive factors.

The architectural finishes business consists primarily of coatings used by painting and maintenance contractors and

by consumers for decoration and maintenance. PPG's products are sold through independent distributors, paint dealers, mass merchandisers, home centers, PPG-operated outlets and directly to some customers. Price, quality and distribution are key competitive factors in the architectural finishes market.

The aerospace business primarily supplies coatings, sealants and transparencies for aircraft serving the commercial, military and general aviation industries as well as sealants for architectural insulating glass units. The aerospace business distributes products directly to aircraft maintenance and aftermarket customers around the world.

The principal production facilities of the coatings business are in North America and Europe. North American production facilities consist of 22 plants in the United States, two in Canada and one in Mexico. The three largest facilities in the United States are the Cleveland, Ohio, plant, which primarily produces automotive original coatings; the Oak Creek, Wis., plant, which primarily produces industrial coatings and certain automotive original coatings; and the Delaware, Ohio, plant, which primarily produces automotive refinishes and certain automotive original and industrial coatings. Outside North America, PPG operates six plants in Italy, three plants each in Germany and Spain, two plants each in Brazil, China, England and France, and one plant each in Argentina, Australia, Malaysia, the Netherlands, Thailand and Turkey. PPG owns equity interests in operations in Canada, India, South Korea and Taiwan. Additionally, the automotive coatings business operates seven service centers in the United States, two each in Mexico and Poland, and one each in Argentina, Canada, China, France and Portugal to provide just-in-time delivery and service to selected automotive assembly plants. Seventeen training centers in Europe, 15 in the United States, 10 in Asia, three in Canada and South America, and one in Mexico are in operation. These centers provide training for automotive aftermarket refinish customers. The aerospace business operates a global network of 13 application support centers that provide customer technical support, on-time delivery of products, and improvements to customer efficiency and productivity. Also, four automotive original coatings application centers throughout the world that provide testing facilities for customer paint processes and new products are in operation. The average number of persons employed by the coatings segment during 2002 was 16,400.

Glass

PPG is one of the major producers of flat glass, fabricated glass and continuous-strand fiber glass in the world. PPG's major markets are automotive original equipment, automotive replacement, residential and commercial construction, the furniture and electronics industries and other markets. Most glass products are sold directly to manufacturing and construction companies, although in many instances products are sold directly to independent distributors and through PPG distribution outlets. PPG manufactures flat

glass by the float process and fiber glass by the continuous-filament process. PPG also provides services to insurance companies and glass installers through its auto glass claims processor, *LYNX Services*®.

The bases for competition are price, quality, technology, cost and customer service. The Company competes with six other major producers of flat glass, six other major producers of fabricated glass and two other major producers of fiber glass throughout the world.

PPG's principal glass production facilities are in North America and Europe. Fourteen plants operate in the United States, of which six produce automotive original and replacement glass products, five produce flat glass, and three produce fiber glass products. There are three plants in Canada, two of which produce automotive original and replacement glass products and one produces flat glass. One plant each in England and the Netherlands produce fiber glass. PPG owns equity interests in operations in China, Mexico, Taiwan, the United States and Venezuela and a majority interest in a glass distribution company in Japan. Additionally, there are four satellite operations in the United States, two satellite operations in Canada and one in Mexico that provide limited fabricating or assembly and just-in-time product delivery to selected automotive customer locations, one satellite coating facility in the United States for flat glass products and one satellite tempering and fabrication facility in the United States for flat glass products. There are also two insurance claim management centers that serve the *LYNX Services*® business. The average number of persons employed by the glass segment during 2002 was 11,800.

Chemicals

PPG is a major producer and marketer of chlor-alkali chemicals and a supplier of specialty chemicals. The primary chlor-alkali products are chlorine, caustic soda, vinyl chloride monomer, chlorinated solvents, chlorinated benzenes and calcium hypochlorite. Most of these products are sold directly to manufacturing companies in the chemical processing, rubber and plastics, paper, minerals, metals, and water treatment industries. The primary products of PPG's specialty chemicals businesses are *Transitions*® lenses; optical monomers; precipitated silicas for tire, shoe, battery separator, and other industrial businesses and phosgene derivatives and other intermediates for the pharmaceutical and agricultural industries. *Transitions*® lenses are manufactured and distributed by PPG's majority-owned joint venture with Essilor International.

PPG competes with six other major producers of chlor-alkali products. Price, product availability, product quality and customer service are the key competitive factors. In the specialty chemicals area, PPG's market share varies greatly by business; product quality and performance and technical service are the most critical competitive factors.

Chemicals' principal production facilities are concentrated in North America, with five plants in the United States and one each in Canada and Mexico. The two largest facilities, located in Lake Charles, La., and Natrium, W. Va.,

primarily produce chlor-alkali products. Outside North America, PPG operates two plants each in China, France and Taiwan, and one each in Australia, Brazil, Ireland, the Netherlands and the Philippines. PPG owns equity interests in operations in Japan, Thailand and the United States. The average number of persons employed by the chemicals segment during 2002 was 4,700.

Raw Materials and Energy

The effective management of raw materials and energy is important to PPG's continued success. The Company's most significant raw materials are titanium dioxide and epoxy and other resins in the coatings segment; and sand, soda ash and polyvinyl butyral in the glass segment. Energy is a significant production cost in the chemicals and glass segments. Most of the raw materials and energy used in production are purchased from outside sources, and the Company has made, and will 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.

Research and Development

Research and development costs, including depreciation of research facilities, during 2002, 2001 and 2000 were \$289 million, \$283 million and \$301 million, respectively. PPG owns and operates several research and development facilities to conduct research and development involving 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.

Patents

PPG considers patent protection to be important. The Company's business segments are not materially dependent upon any single patent or group of related patents. PPG received \$26 million in 2002 and 2001 and \$27 million in 2000 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

Although PPG has a significant investment in non-U.S. operations, based upon the magnitude and location of investments, management believes that the risk associated with its international operations is not significantly greater than that of domestic operations.

Employee Relations

The average number of persons employed worldwide by PPG during 2002 was 34,100. The Company has numerous collective bargaining agreements throughout the world and

believes it will be able to renegotiate any such agreements on satisfactory terms. The Company believes it has good relationships with its employees.

Environmental Matters

Like other companies, PPG is subject to the existing and evolving standards relating to the protection of the environment. Capital expenditures for environmental control projects were \$8 million in 2002 and \$22 million in 2001 and 2000. It is expected that expenditures for such projects in 2003 will approximate \$20 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 costly.

PPG is negotiating with various government agencies concerning 94 current and former manufacturing sites, and offsite waste disposal locations, including 23 sites on the National Priority List (NPL). The number of sites is comparable with the prior year. 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 those sites where it is probable that a liability has been incurred and the amount can be reasonably estimated. As of Dec. 31, 2002 and 2001, PPG had reserves for environmental contingencies totaling \$87 million and \$94 million, respectively. Pretax charges against income for environmental remediation costs in 2002, 2001 and 2000 totaled \$15 million, \$29 million and \$18 million, respectively.

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. Over the past 10 years the pretax charges against income have ranged between \$10 million and \$49 million per year. We anticipate that charges against income in 2003 will be within that range. It is possible, however, that technological, regulatory and enforcement developments, the results of environmental studies and other factors could alter this expectation. 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. See "Commitments and Contingent Liabilities, including Environmental Matters" in Management's Discussion and Analysis under Item 7 of this Form 10-K for additional information related to environmental matters.

Internet Access

The website address for the Company is www.ppg.com. The Company's recent filings on Forms 10-K, 10-Q and 8-K and any amendments to those documents can be accessed without charge on that website under Financial, SEC Edgar.

Item 2. Properties

See "Item 1. Business" for information on PPG's production and fabrication facilities.

Generally, the Company's plants are 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 product liability, contract, patent, environmental, antitrust and other matters arising out of the conduct of PPG's business. 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.

The Company has been named as a defendant in a number of antitrust lawsuits filed in federal and state courts by various plaintiffs. These suits allege PPG was involved with competitors in fixing prices and allocating markets for the automotive refinish industry and for certain glass products. Twenty-nine glass antitrust cases were filed in federal courts, all of which have been consolidated in Federal District Court in Pittsburgh, Pa., and the court has ruled that the case may proceed as a class action. All of the initial defendants in the glass class action antitrust case, other than PPG, have entered into settlement agreements with the plaintiffs. In addition, approximately 65 cases alleging antitrust violations in the automotive refinish industry have been filed in various state and federal jurisdictions, and have been consolidated in Federal District Court in Philadelphia, Pa., but these proceedings are still at an early stage. The plaintiffs in these cases are seeking economic and treble

damages and injunctive relief. PPG believes it has meritorious defenses in these lawsuits.

The Company has been a defendant since April 1994 in a suit filed by Marvin Windows and Doors (Marvin) alleging numerous claims, including breach of warranty. All of the plaintiff's claims, other than breach of warranty, have been dismissed. However, on Feb. 14, 2002, a federal jury awarded Marvin \$136 million on the remaining claim. Subsequently, the court added \$20 million for interest bringing the total judgment to \$156 million. PPG filed an appeal on July 8, 2002. PPG believes it has meritorious defenses to the plaintiff's claims and has reasonable prospects of prevailing on appeal.

For over thirty 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 settlement arrangement announced May 14, 2002, see Note 13, "Commitments and Contingent Liabilities," under Item 8 of this Form 10-K.

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

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

None.

Part II

Item 5. Market for the Registrant's Common Equity and Related Stockholder Matters

The information required by Item 5 regarding market information, including stock exchange listings and quarterly stock market prices, dividends and holders of common stock are included in Exhibit 99.1 filed with this Form 10-K and is incorporated herein by reference. This information is also included in the PPG Shareholder Information on page 59 of the Annual Report.

Directors who are not also Officers of the Company receive Common Stock Equivalents pursuant to the Deferred Compensation Plan for Directors and, through 2002, the Directors' Common Stock Plan. 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 both plans 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 plans. The plans are incorporated by reference into this Form 10-K as Exhibit 10.

Under the Company's Deferred Compensation Plan for Directors, each Director must defer receipt of such compensation as the Board mandates. Currently, the Board mandates deferral of one-third of each payment of the basic annual retainer of each Director. Each Director may also

elect to defer the receipt of (i) an additional one-third of each payment of the basic annual retainer, (ii) all of the basic annual retainer, or (iii) all compensation. 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 8,217; 8,545 and 7,584 Common Stock Equivalents in 2002, 2001 and 2000, respectively, under this plan. The values of the Common Stock Equivalents, when credited, ranged from \$44.70 to \$57.68 in 2002, \$45.10 to \$54.95 in 2001 and \$39.69 to \$55.06 in 2000.

Under the Directors' Common Stock Plan, each Director who neither is nor was an employee of the Company was credited with Common Stock Equivalents worth one-half of the Director's basic annual retainer. Effective Jan. 1, 2003, active Directors no longer participate in the Directors' Common Stock Plan. On that date, the Common Stock Equivalents held in each active Directors' account in the Directors' Common Stock Plan were transferred to their accounts in the Deferred Compensation Plan for Directors. For retired Directors, the Common Stock Equivalents held in their account will be converted to and paid in Common Stock of the Company (and cash as to any fractional Common Stock Equivalent). The Directors, as a group, received 3,325; 3,820 and 3,603 Common Stock Equivalents in 2002, 2001 and 2000, respectively, under this plan. The values of those Common Stock Equivalents, when credited, ranged from \$48.73 to \$57.68 in 2002, \$45.10 to \$54.70 in 2001 and \$40.00 to \$52.25 in 2000.

The following table provides information as of Dec. 31, 2002 regarding the number of shares of PPG Common Stock that may be issued under PPG's equity compensation plans.

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders ⁽¹⁾	12,465,885	\$54.86	16,418,995
Equity compensation plans not approved by security holders ⁽²⁾	2,843,611	70.00	485,311
Total⁽⁴⁾	15,309,496⁽³⁾	\$57.25	16,904,306

(1) Included in this information are the following plans and related number of securities available for future issuance under these plans: PPG Stock Option Plan (13,983,500 shares – see Note 18, "Stock-Based Compensation," under Item 8 of this Form 10-K), Executive Officers Total Shareholder Return Plan (983,628 shares), Total Shareholder Return Plan (1,356,070 shares) and Executive Officers Annual Incentive Compensation Plan (95,797 shares).

(2) Plans not approved by security holders include the following:
Incentive Compensation and Management Award Plans – both annual bonus plans. The Incentive Compensation Plan applies to approved senior Company managers. The Management Award Plan covers additional approved managers who do not participate in the Incentive Compensation Plan. A participant may receive a bonus under the applicable plan based on individual performance and business unit and corporate financial performance. Bonuses can be paid in cash or shares of PPG stock or a combination of both. The Incentive Compensation Plan was approved by shareholders in 1980. The Management Award Plan has not been approved by shareholders. One pool of shares is available for issuance to pay awards under both Plans. As of Dec. 31, 2002, there were 235,960 shares available for future issuance under both plans.

PPG Deferred Compensation Plan – allows employees who participate in certain long-term incentive plans and annual bonus plans to defer the receipt of their awards under those plans as well as up to 50% of their salary. Deferrals are credited to phantom investment accounts, which include a phantom PPG stock account selected by the participant, which are similar to investments available under PPG's Employee Savings Plan, which is a 401(k) plan. Amounts credited to the PPG stock account are held as Common Stock Equivalents which have the same characteristics as those described above for the Deferred Compensation Plan for Directors. Payments from the phantom PPG stock account are made in the form of PPG Common Stock (and cash as to any fractional Common Stock Equivalent). As of Dec. 31, 2002, there were 151,567 shares available for future issuance under this plan.

Challenge 2000 Stock Option Plan – a broad-based stock option plan under which on July 1, 1998, the Company granted to substantially all active employees of the Company and its majority owned subsidiaries the option to purchase 100 shares of common stock at its then fair market value of \$70 per share

under the Challenge 2000 Stock Option Plan. Options are exercisable beginning July 1, 2003 and expire on June 30, 2008.

Employee Recognition Program – provides a method to recognize and reward employees for special efforts or innovative actions. Officers and directors may not receive awards under this program. Awards can be made in the form of cash or stock. The Board of Directors has authorized a pool of shares of Common Stock, which can be used for awards under the program. As of Dec. 31, 2002, there were 47,784 shares available for future issuance under the program.

Employee Recruiting Program – allows the Officers-Directors Compensation Committee of the Board of Directors or the Company's Compensation and Employee Benefits Committee to grant awards of shares of PPG Common Stock or cash, or a combination of both, to persons in order to attract them to work for the Company. The Board of Directors has authorized a pool of shares of Common Stock, which can be used for awards under the program. As of Dec. 31, 2002, there were 50,000 shares available for future issuance under the program.

(3) This total includes 14,805,785 options outstanding under the PPG Stock Option and Challenge 2000 Stock Option Plans (see Note 18, "Stock-Based Compensation," under Item 8 of this Form 10-K) and 503,711 shares under other equity compensation plans not approved by security holders.

(4) The total number of shares to be issued under the PPG Deferred Compensation Plan and the Deferred Compensation Plan for Directors was 474,769 and the total number of shares available for future issuance under those plans was 151,567.

Item 6. Selected Financial Data

The information required by Item 6 regarding the selected financial data for the five years ended Dec. 31, 2002 is included in Exhibit 99.2 filed with this Form 10-K and is incorporated herein by reference. This information is also reported in the Eleven-Year Digest on page 58 of the Annual Report under the captions net sales, (loss) income before accounting changes, cumulative effect of accounting changes, net (loss) income, (loss) earnings per common share before accounting changes, cumulative effect of accounting changes on (loss) earnings per common share, (loss) earnings per common share, (loss) earnings per common share – assuming dilution, dividends per share, total assets and long-term debt for the years 1998 through 2002.

Management's Discussion and Analysis

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

Performance in 2002 Compared with 2001

Overall Performance

Our sales decreased 1% to \$8.1 billion from \$8.2 billion in 2001. Sales declined 2% due to lower selling prices in our glass and chemicals segments. This decline was partially offset by higher volumes in our coatings and chemicals segments, net of lower volumes in our glass segment.

The gross profit percentage increased slightly to 37.2% in 2002 from 37.1% in 2001. The increase in gross profit percentage was due to improved manufacturing efficiencies across all of our business segments, lower raw material costs in our coatings segment and lower energy costs. These improvements were substantially offset by lower selling prices in our glass and chemicals segments and higher pension and postretirement medical costs.

Reported net (loss) income and (loss) earnings per share – diluted in 2002 and 2001 is summarized in the following table. We have also identified significant non-recurring items in 2002 and 2001.

(Millions, except per share amounts)	2002		2001	
	Net (loss) income – diluted	(Loss) earnings per share	Net income – diluted	Earnings per share – diluted
Net (loss) income, as reported	\$ (69)	\$(0.41)	\$387	\$2.29
Non-recurring items, net of tax:				
Asbestos settlement, net (See Note 13)	484	2.85	—	—
Restructuring charge (See Note 2)	52	0.31	71	0.42
Cumulative effect of accounting change (See Note 1)	9	0.05	—	—
Net income, excluding non-recurring items	\$476	\$2.80	\$458	\$2.71

The note references in the above table are found under Item 8 of this Form 10-K.

Aside from the factors described above, the increase in net income was also due to lower overhead costs in our coatings and glass businesses, lower environmental remediation expenses, higher insurance recoveries, lower interest expense due to the lower debt levels in 2002 and the favorable effects of foreign currency translation primarily from our European operations. These favorable factors were substantially offset by an increase in pension and postretirement medical costs across all of our businesses, the negative effects of inflation and lower equity earnings primarily in our glass segment. Also, as a result of the Company's adoption as of Jan. 1, 2002 of the provisions of Statement of Financial Accounting Standards (SFAS) No. 142, "Goodwill and Other Intangible Assets," the carrying value of goodwill and certain trademarks will no longer be amortized and will instead be tested for impairment annually. Such

amortization reduced earnings in 2001 by \$32 million after-tax or \$0.20 a share.

Results of Business Segments

(Millions)	Net sales		Operating income	
	2002	2001	2002	2001
Coatings	\$4,482	\$4,410	\$605	\$495
Glass	2,071	2,236	143	255
Chemicals	1,514	1,523	124	91
Corporate	—	—	(26)	(21)
Total	\$8,067	\$8,169	\$846	\$820

Coatings sales increased \$72 million or 2% to \$4.5 billion in 2002. Sales increased 1% from improved volumes primarily in our architectural, North American and Asian automotive original equipment and industrial businesses offset, in part, by lower sales volumes in our aerospace and refinish businesses. Sales also increased 1% due to the positive effects of foreign currency translation. Operating income increased to \$605 million in 2002 compared to \$495 million in 2001. Operating income in 2002 and 2001 included pretax restructuring and other related costs of \$73 million and \$83 million, respectively. Excluding these charges, operating income in 2002 was \$678 million compared to \$578 million in 2001. The increase in operating income is attributable to higher sales volume, lower raw material and overhead costs, improved manufacturing efficiencies and the benefit of goodwill and certain trademarks no longer being amortized due to the Company's adoption of SFAS No. 142. These were offset, in part, by higher selling costs in our architectural business, higher pension and postretirement medical costs, inflationary cost increases and \$3 million in lower equity earnings primarily due to the write-off of a receivable from a customer by one of our Asian joint ventures.

Glass sales decreased 7% to \$2.1 billion in 2002 from \$2.2 billion in 2001. Sales volumes declined 5% principally in our automotive replacement glass, flat glass and fiber glass businesses. Sales also decreased 2% due to lower selling prices principally in our North American automotive original glass, flat glass and fiber glass businesses. Operating income decreased to \$143 million in 2002 compared to \$255 million in 2001. Operating income in 2002 and 2001 included pretax restructuring and other related costs of \$1 million and \$10 million, respectively. Excluding these charges, operating income in 2002 was \$144 million compared to \$265 million in 2001. The decrease in operating income is attributable to lower sales volume and selling prices described above. Operating income also decreased due to lower equity earnings, a shift in sales mix to lower margin products and higher pension and postretirement medical costs offset, in part, by improved manufacturing efficiencies and lower energy and overhead costs.

Chemicals sales were \$1.5 billion in 2002 and 2001. Sales volumes increased 9% principally from our chlor-alkali, fine chemicals and optical products, offset by a 9% decrease in selling prices principally for our chlor-alkali products. Operating income increased to \$124 million in 2002 from \$91 million in 2001. Operating income in 2002

Management's Discussion and Analysis

and 2001 included pretax restructuring and other related costs of \$1 million and \$7 million, respectively. Excluding these charges, operating income in 2002 was \$125 million compared to \$98 million in 2001. The increase in operating income is attributable to improved sales volume, improved manufacturing efficiencies across all of our businesses, lower energy costs, and lower environmental remediation expenses, partially offset by lower selling prices for our chlor-alkali products and higher pension and postretirement medical costs.

Other Significant Factors

The Company's pretax loss in 2002 included net periodic pension expense of \$54 million as compared to net periodic pension income of \$53 million in 2001. The increase in net periodic pension expense is due primarily to a decrease in the market value of pension plan assets, a reduction of the expected return on plan assets assumption for 2002 and the amortization of actuarial losses.

Additionally at Dec. 31, 2002, the majority of the Company's defined benefit pension plans had an accumulated benefit obligation (ABO) in excess of plan assets. As a result, the Company recorded an additional minimum pension liability adjustment in 2002. This adjustment reduced the pre-paid pension asset by \$912 million, increased the intangible pension asset by \$96 million and the minimum pension liability by \$326 million and reflected a deferred tax benefit of \$416 million with a resulting reduction in shareholders' equity through an increase in the accumulated other comprehensive loss of \$726 million.

In 2002, the Company resolved all matters related to its federal income tax returns for the years 1994 to 1998, including matters that were on appeal related to the 1994 to 1996 tax returns. In connection with the resolution of these matters, the Company surrendered in July 2002 certain company-owned life insurance policies and received proceeds of \$32 million, which are included in "Reductions of other property and investments" in the investing activities section in the Statement of Cash Flows under Item 8 of this Form 10-K. The effective tax rate for 2003 is expected to approximate 36%.

The decrease in short-term debt during 2002 is due principally to the repayment of various U.S. and non-U.S. debt obligations.

Outlook

During 2002, we continued to experience mixed economic signals in the United States. Although we saw strong consumer spending and housing starts, we also saw increased unemployment and low demand in the commercial construction sector. Additionally, increases in industrial production, which trended up for much of the year, fell back in the fourth quarter. Business investment declined in 2002 for the second straight year. Economic results in 2002 also reflect the positive influence of the extension of sales incentive programs by the North American automobile manufacturers which were on and off throughout 2002, offsetting weaker European automotive markets.

As we begin the new year, the economic reports indicate that the growth in the U.S. economy appears to have

stalled in the fourth quarter of 2002. Factory orders and industrial production in the U.S. declined in December, the U.S. dollar weakened against the Euro and our trade deficit grew. This news creates further uncertainty concerning the outlook for our economy in 2003. The consensus view calls for modest growth in consumer spending and a gradual rise in business investment that would lead to moderate growth in the U.S. economy in the second half of the year. The outlook for the global economy generally lags behind that of the U.S., with some exceptions such as China. That outlook is clouded by uncertainties such as the threat of terrorism or war with Iraq.

Despite the challenges of weaker economic conditions in 2002 and 2001, we were able to take several important steps to strengthen our Company as a result of our commitment to financial discipline. First, we elevated our focus on cash flow and were able to pay down over \$400 million in debt in 2002 and over \$500 million in 2001. Second, as a result of the workforce reductions and other restructuring actions undertaken in 2002 and 2001 and our continued focus on cost reductions and improvements to business processes, we reduced our manufacturing and overhead costs by \$140 million in 2002. In 2003, we will continue to focus on reducing costs and improving productivity. We will also continue our efforts to improve our customers' results through the delivery of cost effective solutions. These efforts will include developing new products and integrated product/service offerings to meet our customers' needs.

While the steps taken above will translate into improved profitability, costs for employee benefits continue to grow. We expect our pension and other postretirement benefit costs to increase by about \$130 million in 2003, which will reduce earnings per share by about \$0.50. This is due to the decline in the market value of the Company's pension plan assets, due primarily to negative investment returns in the U.S. equity market during the last three years, a reduction in our expected rate of return on plan assets assumption to approximately 8.75% for 2003, rising medical costs, particularly for prescription drugs and a lower discount rate assumption. Despite the expected increase in these costs, we do not believe that we will have a mandatory funding requirement under Pension Benefit Guarantee Corporation (PBGC) or Internal Revenue Service (IRS) regulations in the near-term, so there will only be a minor impact on cash flows in 2003 as a result of these factors.

Another potential risk in 2003 will be increases in energy and raw material costs, particularly for natural gas and petroleum-based materials. The factors driving these costs upward have historically created favorable market conditions for pricing in our chlor-alkali business. During 2002, we benefited from lower raw material costs, primarily associated with our coatings businesses, as well as from lower natural gas costs. However, in the fourth quarter we began to see this benefit diminish and our natural gas costs in the fourth quarter of 2002 exceeded those for the same period of the prior year. Changes in natural gas prices have a significant impact on the operating performance of our chemicals and glass segments. Each one-dollar change in the price of natural gas per mmbtu (million British thermal units) could have a direct impact of

Management's Discussion and Analysis

approximately \$60 million on our annual operating costs. It has become increasingly more difficult to predict future natural gas prices, which are expected to continue to be volatile over the next few years. In order to reduce the risks associated with volatile prices, we use a number of techniques, which include hedging, reducing consumption through improved manufacturing processes and switching to alternative fuels. As of Dec. 31, 2002, we hedged approximately one-third of our anticipated natural gas requirements for 2003 at an average price of \$3.25 per mmbtu.

We also expect the continuing consolidation of companies within our customer and competitor groups, excess global automotive production capacity and the availability of imported products from low labor cost markets to lead to continued downward pressure on our selling prices.

For 2003, we expect slow and perhaps erratic expansion in our North American markets and gains in our Asian markets. We expect continued softness in our European and South American markets. There are several developments that would signal a more solid economic environment for 2003, the most important of which would be steady growth in industrial production.

We expect that 2003 will be another challenging year due to the combination of worldwide political and economic uncertainties, but we are confident that the steps we have taken put us on solid footing to reap the benefits of improved market conditions, both in the U.S. and abroad, whenever they occur.

Newly Adopted Accounting Standards

Note 1, "Summary of Significant Accounting Policies," under Item 8 of this Form 10-K describes and quantifies the Company's adoption of the provisions of the Financial Accounting Standards Board's (FASB) standards on accounting for goodwill and other intangible assets, effective Jan. 1, 2002.

Other New Accounting Standards

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations" which is effective Jan. 1, 2003. The cumulative effect of this change in accounting will decrease our 2003 net income by less than \$10 million and will not have a material impact on future results of operations or financial condition.

During 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities," Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others" and Interpretation No. 46, "Consolidation of Variable Interest Entities." See Note 1, "Summary of Significant Accounting Policies," under Item 8 of this Form 10-K for an expanded description of these new standards. Additionally, the disclosure provisions of SFAS No. 148, "Accounting for Stock-Based Compensation – Transition and Disclosure" have been implemented in Note 18, "Stock-Based Compensation," under Item 8 of this Form 10-K.

Performance in 2001 Compared with 2000

Overall Performance

Our sales decreased 5% in 2001 to \$8.2 billion from \$8.6 billion in 2000. The majority of this sales decrease, 4%, is attributable to decreased volumes across all of our business segments. Sales for 2001 also declined 2% from foreign currency translation primarily within our coatings segment due to the strengthening of the U.S. dollar against other currencies. These sales decreases were partially offset by a 1% increase in prices within our coatings and glass segments.

The gross profit percentage decreased to 37.1% in 2001 from 38.2% in 2000. Increased raw material costs, including natural gas, particularly in our glass and chemicals segments, along with unfavorable sales mix across our glass and chemicals segments were offset slightly by the benefits realized from improved manufacturing efficiencies in our coatings and glass segments.

Reported net income and earnings per share – diluted in 2001 and 2000 is summarized in the following table. We have also identified significant non-recurring items in 2001 and 2000.

(Millions, except per share amounts)	2001		2000	
	Net income	Earnings per share – diluted	Net income	Earnings per share – diluted
Net income, as reported	\$387	\$2.29	\$620	\$3.57
Non-recurring items, net of tax:				
Restructuring charge (See Note 2)	71	0.42	3	0.02
Write-off of 50% owned equity investment (See Note 13)	—	—	35	0.20
Net income, excluding non-recurring items	\$458	\$2.71	\$658	\$3.79

The note references in the above table are found under Item 8 of this Form 10-K.

The decrease in earnings is largely attributable to the lower sales volume and gross profit percentage described above. In addition, selling, general and administrative expenses were up \$31 million as the savings from our restructuring actions of about \$35 million were more than offset by the additional overhead costs of businesses acquired during 2000, higher pension and other benefit costs, higher growth related overhead in our architectural coatings business and the impact of inflation. Additional cost reductions of \$25 million related to our restructuring actions are reflected in research and development costs and costs of sales.

Management's Discussion and Analysis

Results of Business Segments

(Millions)	Net sales		Operating income	
	2001	2000	2001	2000
Coatings	\$4,410	\$4,658	\$495	\$ 685
Glass	2,236	2,350	255	377
Chemicals	1,523	1,621	91	174
Corporate	—	—	(21)	(54)
<i>Total</i>	\$8,169	\$8,629	\$820	\$1,182

Coatings sales decreased 5% to \$4.4 billion in 2001 from \$4.7 billion in 2000. Sales decreased 4% from decreased volumes primarily in our North American automotive original equipment, refinish and industrial businesses. Sales also decreased 2% due to negative effects of foreign currency translation. These decreases were offset slightly by a 1% increase from higher selling prices primarily in our refinish business. Operating income decreased to \$495 million in 2001 compared to \$685 million in 2000. Operating income in 2001 included pretax restructuring and other related costs of \$83 million. Excluding these pretax charges, operating income in 2001 was \$578 million. The decrease in operating income is attributable to lower sales volumes and higher environmental, pension and other benefit costs offset, in part, by improved manufacturing efficiencies and lower research and development costs.

Glass sales decreased 5% to \$2.2 billion in 2001 from \$2.4 billion in 2000. Sales decreased 6% from decreased volumes primarily in our North American automotive original and fiber glass businesses and 1% due to the negative effects of foreign currency translation. These declines were offset by a 2% increase in selling prices, due in part to more profitable product mix, in our flat glass, automotive replacement glass and fiber glass businesses. Operating income decreased to \$255 million in 2001 compared to \$377 million in 2000. Operating income in 2001 included pretax restructuring and other related costs of \$10 million and operating income in 2000 included pretax charges of \$6 million for restructuring and one-time integration costs related to PPG Auto Glass. Excluding these pretax charges, operating income in 2001 was \$265 million compared to \$383 million in 2000. The decrease in operating income is attributable to lower sales volumes primarily in our North American automotive original and fiber glass businesses, the effects of higher natural gas costs and lower equity earnings, partially offset by improved manufacturing efficiencies, higher selling prices and the inclusion of a full year's results of PPG Auto Glass.

Chemicals sales decreased 6% to \$1.5 billion in 2001 from \$1.6 billion in 2000. Sales volumes declined 4% primarily from our chlorine, caustic soda, chlor-alkali derivative and silica products. Sales also decreased 1% due to lower selling prices for our chlor-alkali derivative products and 1% due to the negative effects of foreign currency translation. Operating income decreased to \$91 million in 2001 from \$174 million in 2000. Operating income in 2001 included pretax restructuring and other related costs of \$7 million.

Excluding these pretax charges, operating income in 2001 was \$98 million. The decrease in operating income is attributable to lower sales volumes, higher natural gas and environmental costs and decreased manufacturing efficiencies.

Other Significant Factors

Earnings in 2001 and 2000 included pension income of \$53 million and \$86 million, respectively. This decline in pension income is due primarily to a decline in the market value of pension plan assets during 2000. The market value of our pension plan assets continued to decrease during 2001 due primarily to the declines in the U.S. equity markets. See Note 12, "Pensions and Other Postretirement Benefits," under Item 8 of this Form 10-K for information concerning the pension plan assets and the components of pension income.

Other unallocated corporate expense—net, was \$21 million in 2001 as compared to \$54 million in 2000. Included in 2001 is a pretax charge of \$1 million for restructuring and other related costs. Included in 2000 are pretax charges of \$39 million representing the write-off of a 50% owned equity investment in Pittsburgh Corning Corporation, which has filed for reorganization under the federal bankruptcy code and \$14 million representing an other than temporary decline in the market value of an investment in marketable equity securities, previously recorded, net of tax, as an unrealized loss in other comprehensive loss.

The tax rate for ongoing operations was 36% in both 2001 and 2000. However, the overall effective tax rate in 2001 was 37.07% as the geographic spread of the restructuring charges taken in the first quarter provided a tax benefit of only 30%.

The decrease in short-term and long-term debt during 2001 is due principally to the repayment of various U.S. and non-U.S. debt obligations.

Business Restructuring

During the first quarter of 2002, the Company finalized plans to reduce costs, increase efficiencies and accelerate performance improvement and took a pretax charge of \$81 million for restructuring and other related activities, including severance and other costs of \$66 million and asset dispositions of \$15 million. It is expected that these activities will be completed by June 2003. The details of this charge were as follows:

(Millions, except no. of employees)	Severance and Other Costs	Asset Dispositions	Total Charge	Employees Covered
Coatings	\$ 62	\$ 15	\$ 77	1,004
Glass	1	—	1	22
Chemicals	1	—	1	20
Corporate	2	—	2	20
Total	\$ 66	\$ 15	\$ 81	1,066
Activity	(28)	(15)	(43)	(686)
<i>Balance at Dec. 31, 2002</i>	\$ 38	\$ —	\$ 38	380

Management's Discussion and Analysis

During the first quarter of 2001, the Company finalized plans to reduce costs, increase efficiencies and accelerate performance improvement and took a pretax charge of \$101 million for restructuring and other related activities, including severance and other costs of \$67 million and asset dispositions of \$34 million. As of Dec. 31, 2002, these actions are complete. The details of this charge were as follows:

(Millions, except no. of employees)	Severance and Other Costs	Asset Dispositions	Total Charge	Employees Covered
Coatings	\$ 60	\$ 23	\$ 83	1,072
Glass	4	6	10	254
Chemicals	2	5	7	23
Corporate	1	—	1	18
Total	\$ 67	\$ 34	\$ 101	1,367
Activity	(67)	(34)	(101)	(1,367)
<i>Balance at</i>				
<i>Dec. 31, 2002</i>	\$ —	\$ —	\$ —	—

In conjunction with the 2001 first quarter charge, an additional \$2 million of restructuring costs were recorded in 2001 as incurred and during the second quarter of 2002, \$4 million of the initial \$101 million charge related to the coatings segment was reversed to income.

During 2002 and 2001, we paid \$2 million and \$17 million, respectively, related to restructuring reserves accrued in 2000 and 1999. See Note 2, "Acquisitions and Business Restructuring," under Item 8 of this Form 10-K for an expanded description of these restructuring actions.

Commitments and Contingent Liabilities, including Environmental Matters

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. See Note 13, "Commitments and Contingent Liabilities," under Item 8 of this Form 10-K for an expanded description of certain of these lawsuits, including the proposed settlement of asbestos claims announced on May 14, 2002. As discussed in Note 13, although the result of any future litigation of such lawsuits and claims is inherently unpredictable, 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 in Note 13 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.

It is PPG's policy to accrue expenses for environmental contingencies when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Reserves for environmental contingencies are exclusive of claims against third parties and are generally not

discounted. As of Dec. 31, 2002 and 2001, PPG had reserves for environmental contingencies totaling \$87 million and \$94 million, respectively. Pretax charges against income for environmental remediation costs in 2002, 2001 and 2000 totaled \$15 million, \$29 million and \$18 million, respectively, and are included in "Other charges" in the Statement of Income under Item 8 of this Form 10-K. Cash outlays related to such environmental remediation aggregated \$22 million, \$19 million and \$16 million in 2002, 2001 and 2000, respectively.

Management anticipates that the resolution of the Company's environmental contingencies will occur over an extended period of time. Over the past 10 years the pretax charges against income have ranged between \$10 million and \$49 million per year. We anticipate that charges against income in 2003 will be within that range. It is possible, however, that technological, regulatory and enforcement developments, the results of environmental studies and other factors could alter this expectation. In management's opinion, the Company operates in an environmentally sound manner and the outcome of the Company's environmental contingencies will not have a material effect on PPG's financial position or liquidity.

In addition to the amounts currently reserved, the Company may be subject to loss contingencies related to environmental matters estimated to be as much as \$200 million to \$400 million, which range is unchanged from the prior year end. Such unreserved losses are reasonably possible but are not currently considered to be probable of occurrence. The Company's environmental contingencies are expected to be resolved over an extended period of time.

Although the unreserved exposure to future loss relates to all sites, a significant portion of such exposure involves three operating plant sites in our chemicals segment. Initial remedial actions are occurring at these sites. Studies to determine the nature of the contamination are reaching completion and the need for additional remedial actions, if any, is presently being evaluated. The loss contingencies related to the remaining portion of such unreserved exposure include significant unresolved issues such as the nature and extent of contamination, if any, at these other sites and the methods that may have to be employed should remediation be required. The most significant of these sites is the Calcasieu River estuary, near our Lake Charles, La. chemicals plant. The U.S. Environmental Protection Agency (USEPA) has been investigating contamination levels in the Calcasieu River estuary. During 2002, the USEPA issued draft Human Health and Ecological Risk Assessments indicating that elevated levels of risk exist in the estuary. It is expected that USEPA could issue final risk assessments in 2003 followed by a Remedial Investigation report. PPG would then have discussions with the USEPA and other parties to determine what, if any, role PPG would have in addressing estuary issues.

Management's Discussion and Analysis

With respect to certain waste sites, the financial condition of any other potentially responsible parties also contributes to the uncertainty of estimating PPG's final costs. Although contributors of waste to sites involving other potentially responsible parties may face governmental agency assertions of joint and several liability, in general, final allocations of costs are made based on the relative contributions of wastes to such sites. PPG is generally not a major contributor to such sites.

The impact of evolving programs, such as natural resource damage claims, industrial site reuse initiatives and state voluntary remediation programs, also adds to the present uncertainties with regard to the ultimate resolution of this unreserved exposure to future loss. The Company's 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.

Impact of Inflation

PPG's financial statements are prepared on the historical cost basis, which does not completely account for the effects of inflation.

In 2002, the decline in selling prices and the negative effects of inflation on our production costs were not fully recovered through improved manufacturing efficiencies across all of our businesses and lower raw material and natural gas costs. In 2001, the increase in production costs due to the negative effects of inflation was not fully recovered through price increases and manufacturing efficiencies, which were adversely impacted by lower production volumes. In 2000, the negative effects of inflation, including the impact of higher natural gas costs, were substantially offset in the aggregate by the impact of higher selling prices in our glass and chemicals businesses and manufacturing efficiencies in all of our businesses.

While inflationary and market pressures on costs are expected to be experienced in 2003, we anticipate that ongoing improvements in manufacturing efficiencies, improvement in sales volume as well as increases in selling prices for certain products will more than offset the negative effect of inflation on 2003 operating income.

Financial Resources, Capital Spending

During the past three years, we continued to have sufficient financial resources to meet operating requirements, to fund our capital spending and share repurchase programs and to pay increased dividends to shareholders. Cash from operating activities was \$872 million, \$1,060 million and \$870 million in 2002, 2001 and 2000, respectively. Dividends paid to shareholders totaled \$287 million, \$283 million and \$276 million in 2002, 2001 and 2000, respectively.

During 2002, the Company did not repurchase any shares of its common stock nor does it anticipate, in the near term, that any shares will be repurchased. However, during 2001 and 2000, the Company repurchased approximately 0.1 million and 5.8 million shares of common stock at a cost of \$5 million and \$234 million, respectively, under various share repurchase programs. The program initiated in November 1998 authorized the repurchase of 10 million shares of common stock. As of Dec. 31, 2002, 9.1 million shares of common stock had been repurchased under this program at a cost of \$421 million. In October 2000, we authorized a program to repurchase an additional 10 million shares of common stock. The repurchase of common stock was financed principally by cash from operations and proceeds from long-term debt. Additional shares were repurchased from the PPG Employee Savings Plan.

Capital spending was \$260 million, \$301 million and \$676 million in 2002, 2001 and 2000, respectively. This spending related to business acquisitions totaling \$22 million, \$10 million and \$115 million, in 2002, 2001 and 2000, respectively, modernization and productivity improvements, expansion of existing businesses, and environmental control projects. Capital spending in 2000 also included \$83 million for marketable securities relating to the deferred compensation plan. Capital spending, excluding acquisitions, is expected to be in the range of \$250 million to \$300 million during 2003.

We periodically review our array of businesses in comparison to our overall strategic and performance objectives. As part of this review, we may acquire or divest of certain businesses. During 2003, we anticipate that any acquisitions completed will be funded through a combination of cash generated from operations or from the sale of other businesses and, to a lesser extent, external funding sources or the issuance of stock.

Management's Discussion and Analysis

The ratio of total debt, including capital leases, to total debt and equity was 49% and 44% at Dec. 31, 2002 and 2001, respectively. While we reduced our debt by over \$400 million during 2002, this ratio was negatively impacted as equity was reduced by the after-tax impact of the asbestos settlement charge and the minimum pension liability adjustment recorded in 2002. Cash from operations and the Company's debt capacity are expected to continue to be sufficient to fund capital spending, dividend payments, contributions to pension plans, amounts due under the asbestos settlement and operating requirements, including PPG's significant contractual obligations, which are presented in the following table:

(Millions)	Total	Obligations Due In:			
		2003	2004- 2005	2006- 2007	Thereafter
Long-term debt	\$1,721	\$ 22	\$455	\$182	\$1,062
Capital lease obligations	10	10	—	—	—
Operating leases	266	63	88	52	63
Unconditional purchase obligations	843	218	124	93	408
Total	\$2,840	\$313	\$667	\$327	\$1,533

The unconditional purchase commitments are principally take-or-pay obligations related to the purchase of certain materials, including industrial gases and natural gas, consistent with customary industry practice. These also include PPG's commitment to purchase electricity and steam from the RS Cogen joint venture discussed in Note 5, "Investments," under Item 8 of this Form 10-K.

See Note 7, "Debt and Bank Credit Agreements and Leases," under Item 8 of this Form 10-K for details regarding the use and availability of committed and uncommitted lines of credit, letters of credit, guarantees, and debt covenants.

In addition to the lines of credit, the Company may issue up to \$500 million aggregate principal amount of debt securities under a shelf registration statement filed with the Securities and Exchange Commission (SEC) in July 1999.

Critical Accounting Policies

Management has evaluated the accounting policies used in the preparation of the financial statements and related notes under Item 8 of this Form 10-K and believes those policies to be reasonable and appropriate. We believe that the most critical accounting policies applied in the preparation of our financial statements relate to accounting for contingencies, under which we accrue a loss when it is probable that a liability has been incurred and the amount can be reasonably estimated, and to accounting for pensions, other postretirement benefits, goodwill and other identifiable intangible assets with indefinite lives because of the importance of management judgment in making the estimates necessary to apply these policies.

Contingencies, by their nature, relate to uncertainties that require management to exercise judgment both in

assessing the likelihood that a liability has been incurred as well as in estimating the amount of potential loss. The most important contingencies impacting our financial statements are those related to the collectibility of accounts receivable, environmental remediation, pending litigation against the Company and the resolution of matters related to open tax years. For more information on these matters, see Note 3, "Working Capital Detail," Note 11, "Income Taxes" and Note 13, "Commitments and Contingent Liabilities" under Item 8 of this Form 10-K.

Accounting for pensions and other postretirement benefits involves estimating the cost of benefits to be provided well into the future and attributing that cost over the time period each employee works. To accomplish this, extensive use is made of assumptions about inflation, investment returns, mortality, turnover, medical costs and discount rates. These assumptions are reviewed annually. In determining the expected return on plan asset assumption, the Company evaluates long-term actual return information, the mix of investments that comprise plan assets and future estimates of long-term investment returns. In selecting rates for current and long-term health care assumptions, the Company takes into consideration a number of factors including the Company's actual health care cost increases, the design of the Company's benefit programs, the demographics of the Company's active and retiree populations and expectations of inflation rates out into the future. See Note 12, "Pensions and Other Postretirement Benefits," under Item 8 of this Form 10-K for information on these plans.

As discussed in Note 1, "Summary of Significant Accounting Policies," under Item 8 of this Form 10-K, the Company tests goodwill and identifiable intangible assets with indefinite lives for impairment at least annually by comparing the fair value of such assets to their carrying values. Fair values are estimated using discounted cash flow methodologies that are based on projections of the amounts and timing of future revenues and cash flows.

As part of our ongoing financial reporting process, a collaborative effort is undertaken involving PPG managers with functional responsibility for financial, credit, environmental, legal, tax and benefit matters and outside advisors such as consultants, engineers, lawyers and actuaries. The results of this effort provide management with the necessary information on which to base their judgments on these contingencies and to develop the estimates and assumptions used to prepare the financial statements.

We believe that the amounts recorded in the financial statements under Item 8 of this Form 10-K related to these contingencies, pensions, postretirement benefits, goodwill and other identifiable intangible assets with indefinite lives are based on the best estimates and judgments of the appropriate PPG management, although actual outcomes could differ from our estimates.

Management's Discussion and Analysis

Currency

The Euro and the British Pound Sterling strengthened against the U.S. dollar 18% and 11%, respectively, during 2002. The effects of translating the net assets and net earnings of our operations denominated in these currencies to the U.S. dollar increased consolidated net assets by approximately \$140 million but did not have a significant impact on the results of operations.

This was offset, in part, by the continued devaluation of the Argentine peso, which reduced our net investment in Argentina by \$39 million to a total of \$29 million at Dec. 31, 2002. Any reduction in the value of these net assets resulting from a further devaluation of the Argentine peso will result in a direct charge to the accumulated other comprehensive loss component of shareholders' equity.

Research and Development

Innovation and technology have been a hallmark of our Company's success throughout its history. Research and development costs totaled over 3% of sales in each of the past three years, representing a level of expenditure that we expect to continue in 2003. These costs include technology-driven improvements to our manufacturing processes and customer technical service, as well as the costs of developing new products. Because of our broad array of products and customers, we are not materially dependent upon any single technology platform.

Forward-Looking Statements

The Private Securities Litigation Reform Act of 1995 provides a safe harbor for forward-looking statements made by or on behalf of the Company. Management's Discussion and Analysis and other sections of this Annual Report contain forward-looking statements that reflect the Company's current views with respect to future events and financial performance.

Forward-looking statements are identified by the use of the words "aim," "believe," "expect," "anticipate," "intend," "estimate" and other expressions that indicate future events and trends. Any forward-looking statement speaks only as of the date on which such statement is made and the Company undertakes no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise. You are advised, however, to consult any further disclosures we make on related subjects in our reports to the SEC. Also, note the following cautionary statements.

Many factors could cause actual results to differ materially from the Company's forward-looking statements. Among these factors are increasing price and product competition by foreign and domestic competitors, fluctuations in the cost and availability of raw materials, the ability to maintain favorable supplier relationships and arrangements, economic and political conditions in international markets, the ability to penetrate existing, developing and emerging foreign and domestic markets, which also depends on economic and political conditions, foreign exchange rates and fluctuations in those rates, and the unpredictability of possible future litigation, including litigation that could result if the asbestos settlement does not become effective. Further, it is not possible to predict or identify all such factors. Consequently, while the list of factors presented here is considered representative, no such list should be considered to be a complete statement of all potential risks and uncertainties. Unlisted factors may present significant additional obstacles to the realization of forward-looking statements.

The consequences of material differences in the results as compared to those anticipated in the forward-looking statements could include, among other things, business disruption, operational problems, financial loss, legal liability to third parties and similar risks, any of which could have a material adverse effect on the Company's consolidated financial condition, operations or liquidity.

Item 7a. Quantitative and Qualitative Disclosures About Market Risk

PPG is exposed to market risks related to changes in foreign currency exchange rates, interest rates and natural gas prices arising from transactions that are entered into in the normal course of business. The Company may enter into derivative financial instrument transactions in order to manage or reduce this market risk. A detailed description of these exposures and the Company's risk management policies are provided in Note 9, "Derivative Financial Instruments," under Item 8 of this Form 10-K.

Foreign currency forward and option contracts outstanding as of Dec. 31, 2002 and 2001 were used to hedge PPG's exposure to foreign currency transaction and translation risk. The fair value of these contracts was an asset of \$1 million as of Dec. 31, 2002 and 2001. The potential reduction in PPG's earnings resulting from adverse changes in the exchange rates on the fair value of its outstanding foreign currency hedge contracts of 10% for European currencies and 20% for Asian and South American currencies would have totaled approximately \$1 million and \$4 million as of Dec. 31, 2002 and 2001, respectively.

PPG had non-U.S. dollar-denominated debt of \$317 million and \$409 million as of Dec. 31, 2002 and 2001, respectively. A weakening of the U.S. dollar by 10% against European currencies and by 20% against Asian and South American currencies would have resulted in unrealized translation losses of approximately \$46 million and \$59 million as of Dec. 31, 2002 and 2001, respectively.

Interest rate swaps are used to manage a portion of PPG's interest rate risk and, as of Dec. 31, 2002 and 2001, the fair value of the interest rate swaps was an asset of \$23 million and a liability of \$20 million, respectively. The

fair value of these swaps would have decreased by \$7 million as of Dec. 31, 2002 and increased by \$11 million as of Dec. 31, 2001, if variable interest rates changed unfavorably by 10%. A 10% increase in interest rates in the U.S., Canada, Mexico and Europe and a 20% increase in interest rates in Asia and South America would have affected PPG's variable rate debt obligations by increasing interest expense by approximately \$3 million and \$6 million as of Dec. 31, 2002 and 2001, respectively. Further, a 10% reduction in interest rates would have increased the present value of the Company's fixed rate debt by approximately \$53 million and \$62 million as of Dec. 31, 2002 and 2001, respectively. Such changes would not have had a material effect on PPG's annual earnings or cash flows.

The fair value of natural gas swap and option contracts was an asset of \$24 million and a liability of \$12 million as of Dec. 31, 2002 and 2001, respectively. These contracts were entered into to reduce PPG's exposure to rising prices of natural gas. A 10% reduction in the price of natural gas would result in a loss in the fair value of the underlying natural gas swap and option contracts outstanding as of Dec. 31, 2002 and 2001 of approximately \$8 million and \$12 million, respectively.

In November 2002, an equity forward arrangement was entered into to hedge the Company's exposure to changes in fair value of its future obligation to contribute PPG stock into an asbestos settlement trust (see Note 9, "Derivative Financial Instruments" and Note 13, "Commitments and Contingent Liabilities," under Item 8 of this Form 10-K). The fair value of this instrument as of Dec. 31, 2002 was an asset of \$1 million. A 10% unfavorable change in PPG's stock price would have reduced the value of this instrument to a liability of \$2 million.

Financial and Operating Review

Item 8. Financial Statements and Supplementary Data

Independent Auditors' Report

To the Board of Directors and Shareholders of
PPG Industries, Inc.:

We have audited the accompanying consolidated balance sheet of PPG Industries, Inc. and subsidiaries as of December 31, 2002 and 2001, and the related consolidated statements of income, shareholders' equity, comprehensive income and cash flows for each of the three years in the period ended December 31, 2002 set forth on pages 27 to 50. Our audits also included the financial statement schedule listed in Item 15 on page 52. These financial statements and the financial statement schedule are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements and the financial statement schedule based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of PPG Industries, Inc. and subsidiaries as of December 31, 2002 and 2001, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2002 in conformity with accounting principles generally accepted in the United States of America. Also, in our opinion, such financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, presents fairly, in all material respects, the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, on January 1, 2002 the Company changed its method of accounting for goodwill and other intangible assets to adopt Statement of Financial Accounting Standards No. 142, "Goodwill and Other Intangible Assets."



Deloitte & Touche LLP
Pittsburgh, Pennsylvania
January 16, 2003

Management Statement

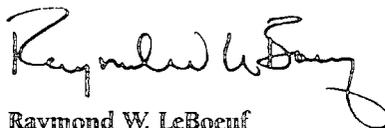
Responsibility for Preparation of the Financial Statements

The management of PPG Industries, Inc. is responsible for the preparation of the financial statements included in this Annual Report.

To ensure the reliability of financial data, PPG has established, and maintains, an internal control system. We believe the internal controls in use give reasonable assurance that financial reports do not contain any material misstatement.

We believe that the financial statements and related notes in this report are accurate in all material respects, and that they were prepared according to accounting principles generally accepted in the United States of America. The financial statements include amounts that are based on the best estimates and judgments of management.

We believe, further, that the other financial information contained in this Annual Report is consistent with the financial statements.



Raymond W. LeBoeuf
Chairman of the Board
and Chief Executive Officer



William H. Hernandez
Senior Vice President, Finance

Statement of Income

(Millions, except per share amounts)	For the Year		
	2002	2001	2000
Net sales	\$8,067	\$8,169	\$8,629
Cost of sales	5,066	5,137	5,334
Gross profit	3,001	3,032	3,295
Other expenses (earnings)			
Selling, general and administrative	1,419	1,395	1,364
Depreciation	366	375	374
Research and development — net (See Note 20)	273	266	282
Interest	128	169	177
Amortization (See Note 1)	32	72	73
Asbestos settlement, net (See Notes 9 and 13)	755	—	—
Business restructuring (See Note 2)	77	103	5
Other charges	74	84	141
Other earnings (See Note 17)	(95)	(98)	(138)
Total other expenses — net	3,029	2,366	2,278
(Loss) income before income taxes, minority interest and cumulative effect of accounting change	(28)	666	1,017
Income tax (benefit) expense (See Note 11)	(7)	247	369
Minority interest	39	32	28
(Loss) income before cumulative effect of accounting change	(60)	387	620
Cumulative effect of accounting change, net of tax (See Note 1)	(9)	—	—
Net (loss) income	\$ (69)	\$ 387	\$ 620
<i>(Loss) earnings per common share (See Notes 1 and 10)</i>			
(Loss) income before cumulative effect of accounting change	\$(0.36)	\$ 2.30	\$ 3.60
Cumulative effect of accounting change, net of tax	(0.05)	—	—
<i>(Loss) earnings per common share</i>	<i>\$(0.41)</i>	<i>\$ 2.30</i>	<i>\$ 3.60</i>
<i>(Loss) earnings per common share — assuming dilution (See Notes 1 and 10)</i>			
(Loss) income before cumulative effect of accounting change	\$(0.36)	\$ 2.29	\$ 3.57
Cumulative effect of accounting change, net of tax	(0.05)	—	—
<i>(Loss) earnings per common share — assuming dilution</i>	<i>\$(0.41)</i>	<i>\$ 2.29</i>	<i>\$ 3.57</i>

The accompanying notes to the financial statements are an integral part of this consolidated statement.

Balance Sheet

	December 31	
(Millions)	2002	2001
Assets		
Current assets		
Cash and cash equivalents	\$ 117	\$ 108
Receivables (See Note 3)	1,486	1,416
Inventories (See Note 3)	942	904
Deferred income taxes (See Note 11)	219	155
Other	181	120
Total current assets	2,945	2,703
Property (See Note 4)	7,270	7,153
Less accumulated depreciation	4,638	4,401
Property — net	2,632	2,752
Investments (See Note 5)	262	305
Goodwill (See Notes 1 and 6)	1,047	972
Identifiable intangible assets (See Notes 1 and 6)	514	570
Other assets (See Note 12)	463	1,150
Total	\$ 7,863	\$ 8,452
Liabilities and Shareholders' Equity		
Current liabilities		
Short-term debt and current portion of long-term debt (See Note 7)	\$ 352	\$ 696
Asbestos settlement (See Note 13)	190	—
Accounts payable and accrued liabilities (See Note 3)	1,378	1,259
Total current liabilities	1,920	1,955
Long-term debt (See Note 7)	1,699	1,699
Asbestos settlement (See Note 13)	566	—
Deferred income taxes (See Note 11)	64	552
Accrued pensions (See Note 12)	491	157
Other postretirement benefits (See Note 12)	516	514
Other liabilities (See Note 12)	326	373
Total liabilities	5,582	5,250
Commitments and contingent liabilities (See Note 13)		
Minority interest	131	122
Shareholders' equity (See Note 14)		
Common stock	484	484
Additional paid-in capital	126	109
Retained earnings	6,197	6,551
Treasury stock, at cost	(3,471)	(3,496)
Unearned compensation (See Note 16)	(85)	(108)
Accumulated other comprehensive income (loss) (See Note 15)	(1,101)	(460)
Total shareholders' equity	2,150	3,080
Total	\$ 7,863	\$ 8,452

Shares outstanding were 169,442,193 and 168,488,256 at Dec. 31, 2002 and 2001, respectively.

The accompanying notes to the financial statements are an integral part of this consolidated statement.

Statement of Shareholders' Equity

(Millions)	Common Stock	Additional Paid-In Capital	Retained Earnings	Treasury Stock	Unearned Compensation (See Note 16)	Accumulated Other	Total
						Comprehensive Income (Loss) (See Note 15)	
Balance, Jan. 1, 2000	\$484	\$104	\$6,098	\$(3,268)	\$(134)	\$ (178)	\$3,106
Net income	—	—	620	—	—	—	620
Other comprehensive loss, net of tax	—	—	—	—	—	(133)	(133)
Cash dividends	—	—	(276)	—	—	—	(276)
Purchase of treasury stock	—	—	—	(247)	—	—	(247)
Issuance of treasury stock	—	(2)	—	7	—	—	5
Loans to ESOP	—	—	—	—	(24)	—	(24)
Repayment of loans by ESOP	—	—	—	—	44	—	44
Other	—	—	2	—	—	—	2
Balance, Dec. 31, 2000	484	102	6,444	(3,508)	(114)	(311)	3,097
Net income	—	—	387	—	—	—	387
Other comprehensive loss, net of tax	—	—	—	—	—	(149)	(149)
Cash dividends	—	—	(283)	—	—	—	(283)
Purchase of treasury stock	—	—	—	(5)	—	—	(5)
Issuance of treasury stock	—	7	—	17	—	—	24
Loans to ESOP	—	—	—	—	(32)	—	(32)
Repayment of loans by ESOP	—	—	—	—	38	—	38
Other	—	—	3	—	—	—	3
Balance, Dec. 31, 2001	484	109	6,551	(3,496)	(108)	(460)	3,080
Net loss	—	—	(69)	—	—	—	(69)
Other comprehensive loss, net of tax	—	—	—	—	—	(641)	(641)
Cash dividends	—	—	(287)	—	—	—	(287)
Issuance of treasury stock	—	17	—	25	—	—	42
Repayment of loans by ESOP	—	—	—	—	23	—	23
Other	—	—	2	—	—	—	2
Balance, Dec. 31, 2002	\$484	\$126	\$6,197	\$(3,471)	\$(85)	\$(1,101)	\$2,150

Statement of Comprehensive Income

(Millions)	For the Year		
	2002	2001	2000
Net (loss) income	\$ (69)	\$ 387	\$ 620
Other comprehensive (loss) income, net of tax (See Note 15)			
Unrealized currency translation adjustment	73	(131)	(120)
Minimum pension liability adjustment (See Note 12)	(726)	(20)	(16)
Unrealized (losses) gains on marketable equity securities	(5)	10	(6)
Reclassification adjustment — marketable equity securities	—	—	9
Transition adjustment on derivatives (See Note 1)	—	43	—
Net change — derivatives (See Note 9)	17	(51)	—
Other comprehensive loss, net of tax	(641)	(149)	(133)
Comprehensive (loss) income	\$(710)	\$ 238	\$ 487

The accompanying notes to the financial statements are an integral part of these consolidated statements.

Statement of Cash Flows

For the Year

(Millions)	2002	2001	2000
Operating activities			
Net (loss) income	\$ (69)	\$ 387	\$ 620
Adjustments to reconcile to cash from operations			
Cumulative effect of accounting change (See Note 1)	9	—	—
Asbestos settlement, net of tax	484	—	—
Depreciation and amortization	398	447	447
Business restructuring	77	103	5
Restructuring cash spending	(63)	(53)	(46)
Bad debt expense	24	30	27
Equity affiliate loss (earnings) net of dividends	7	11	(19)
Loss on write-off of equity investment	—	—	39
Reclassification adjustment — marketable equity securities	—	—	9
Decrease (increase) in pension asset	21	(63)	(102)
(Increase) decrease in receivables	(36)	74	(44)
(Increase) decrease in inventories	(9)	187	(92)
(Increase) decrease in other current assets	(44)	32	(11)
Increase (decrease) in accounts payable and accrued liabilities	69	(126)	35
Decrease (increase) in noncurrent assets	9	31	(38)
(Decrease) increase in noncurrent liabilities	(28)	(14)	45
Other	23	14	(5)
<i>Cash from operating activities</i>	872	1,060	870
Investing activities			
Capital spending			
Additions to property and investments	(238)	(291)	(561)
Business acquisitions, net of cash balances acquired	(22)	(10)	(115)
Reductions of other property and investments	48	56	40
<i>Cash used for investing activities</i>	(212)	(245)	(636)
Financing activities			
Net change in borrowings with maturities of three months or less	(287)	(511)	220
Proceeds from other short-term debt	62	179	268
Repayment of other short-term debt	(65)	(203)	(244)
Proceeds from long-term debt	6	29	32
Repayment of long-term debt	(139)	(41)	(55)
Loans to employee stock ownership plan	—	(32)	(24)
Repayment of loans by employee stock ownership plan	23	38	44
Purchase of treasury stock	—	(5)	(247)
Issuance of treasury stock	32	13	4
Dividends paid	(287)	(283)	(276)
<i>Cash used for financing activities</i>	(655)	(816)	(278)
Effect of currency exchange rate changes on cash and cash equivalents	4	(2)	(3)
Net increase (decrease) in cash and cash equivalents	9	(3)	(47)
Cash and cash equivalents, beginning of year	108	111	158
<i>Cash and cash equivalents, end of year</i>	\$ 117	\$ 108	\$ 111

The accompanying notes to the financial statements are an integral part of this consolidated statement.

Notes

1. Summary of Significant Accounting Policies

Principles of consolidation

The accompanying consolidated financial statements include the accounts of PPG Industries, Inc. (PPG or the Company), and all subsidiaries, both U.S. and non-U.S., that we control. We own more than 50% of the voting stock of the subsidiaries that we control. Investments in companies of which we own 20% to 50% of the voting stock and have the ability to exercise significant influence over operating and financial policies of the investee are accounted for using the equity method of accounting. As a result, our share of the earnings or losses of such equity affiliates is included in the accompanying statement of income and our share of these companies' accumulated other comprehensive income is included in the accompanying balance sheet. Transactions between PPG and its subsidiaries are eliminated in consolidation.

Use of estimates in the preparation of financial statements

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

Revenue recognition

Revenue from sales is recognized by all business segments when goods are shipped and title to inventory passes to the customer or when services have been rendered.

Shipping and handling costs

Amounts billed to customers for shipping and handling are recorded in "Net sales" in the accompanying statement of income. Shipping and handling costs incurred by the Company for the delivery of goods to customers are included in "Cost of sales" in the accompanying statement of income.

Foreign currency translation

For all significant non-U.S. operations, the functional currency is the local currency. Assets and liabilities of those operations are translated into U.S. dollars using year-end exchange rates; income and expenses are translated using the average exchange rates for the reporting period. Translation adjustments are deferred in accumulated other comprehensive income (loss), a separate component of shareholders' equity.

Cash equivalents

Cash equivalents are highly liquid investments (valued at cost, which approximates fair value) acquired with an original maturity of three months or less.

Inventories

Most U.S. inventories are stated at cost, using the last-in, first-out (LIFO) method, which does not exceed market. All other inventories are stated at cost, using the first-in, first-out (FIFO) method, which does not exceed market. We determine cost using either average or standard factory costs, which approximate actual costs, excluding certain fixed costs such as depreciation and property taxes.

Marketable securities

The Company's investment in marketable securities is recorded at fair market value in "Investments" in the accompanying balance sheet with changes in fair market value recorded in income for those securities designated as trading securities and in other comprehensive income, net of tax, for those designated as available for sale securities.

Property

Property is recorded at cost. We compute depreciation by the straight-line method based on the estimated useful lives of depreciable assets. Additional expense is recorded when facilities or equipment are subject to abnormal economic conditions or obsolescence. Significant improvements that add to productive capacity or extend the lives of properties are capitalized. Costs for repairs and maintenance are charged to expense as incurred. When property is retired or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any related gains or losses are included in income. Amortization of the cost of capitalized leased assets is included in depreciation expense. Property and other long-lived assets are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

Goodwill and identifiable intangible assets

Goodwill represents the excess of the cost over the net tangible and identifiable intangible assets of acquired businesses. Identifiable intangible assets acquired in business combinations are recorded based upon fair market value at the date of acquisition.

Effective Jan. 1, 2002, PPG adopted the provisions of Statement of Financial Accounting Standards (SFAS) No. 142, "Goodwill and Other Intangible Assets." This standard changes the accounting for goodwill and certain other intangible assets from an amortization method to an impairment only approach. The standard also requires a reassessment of the useful lives of identifiable intangible assets other than goodwill and at least an annual test for impairment of goodwill and intangibles with indefinite lives. Note 6 provides additional information concerning goodwill and other identifiable intangible assets.

In accordance with the requirements of SFAS No. 142, the Company tested the goodwill attributable to each of our reporting units for impairment as of Jan. 1, 2002 and concluded that none of its goodwill was impaired. The Company's reporting units are the major product lines

Notes

comprising our reportable business segments. Fair value was estimated using discounted cash flow methodologies and market comparable information. The Company will test goodwill of each of our reporting units for impairment at least annually in connection with our strategic planning process.

In addition, the Company reassessed the useful lives of its identifiable intangible assets and determined that the lives were appropriate other than for the Company's acquired trademarks, which were concluded to have indefinite useful lives. As a result, the Company ceased amortization of the cost of these trademarks as of Jan. 1, 2002. Also, in accordance with the requirements of SFAS No. 142, the Company tested each of these trademarks for impairment by comparing the fair value of each trademark to its carrying value as of Jan. 1, 2002. Fair value was estimated by using the relief from royalty method (a discounted cash flow methodology.) Based on these impairment tests, PPG recognized an adjustment of \$14 million (\$9 million or \$0.05 per share, net of tax) in the first quarter of 2002 to reduce the carrying value of certain trademarks within our coatings segment to their estimated fair value as the level of future cash flows from sales of certain brands is expected to be less than originally anticipated. Under SFAS No. 142, this impairment adjustment has been reported as the cumulative effect of an accounting change in our first quarter 2002 income statement. The Company will test the carrying value of these trademarks for impairment at least annually.

Had the Company been accounting for its goodwill and certain other intangible assets under SFAS No. 142 for all prior periods presented, the Company's net income and earnings per common share would have been as follows for the two years ended Dec. 31, 2001:

<i>(Millions, except per share amounts)</i>	2001	2000
<i>Net income</i>		
Reported net income	\$ 387	\$ 620
Add back amortization expense, net of tax	32	32
<i>Adjusted net income</i>	<i>\$ 419</i>	<i>\$ 652</i>
<i>Earnings per common share</i>		
Reported earnings	\$2.30	\$3.60
Impact of amortization expense, net of tax	0.20	0.20
<i>Adjusted earnings per common share</i>	<i>\$2.50</i>	<i>\$3.80</i>
<i>Earnings per common share — assuming dilution</i>		
Reported earnings	\$2.29	\$3.57
Impact of amortization expense, net of tax	0.20	0.20
<i>Adjusted earnings per common share — assuming dilution</i>	<i>\$2.49</i>	<i>\$3.77</i>

In June 2001, the Financial Accounting Standards Board (FASB) issued SFAS No. 141, "Business Combinations," which requires that the purchase method of accounting be

used for all business combinations initiated after June 30, 2001. All of the Company's acquisitions have been accounted for using the purchase method. Also, in accordance with the transition provisions of SFAS No. 141, the carrying amount of the intangible asset related to the acquired assembled workforce, net of related tax effects, which totaled \$15 million, was reclassified from identifiable intangible assets to goodwill effective Jan. 1, 2002, as this intangible asset no longer meets the criteria for recognition apart from goodwill.

Prior to the adoption of the provisions of SFAS No. 142, substantially all of the Company's goodwill and acquired trademarks were amortized on a straight-line basis over a forty-year period.

Identifiable intangible assets with finite lives continue to be amortized on a straight-line basis over their estimated useful lives (3 to 25 years) and are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

Stock-based compensation

PPG applies Accounting Principles Board Opinion (APB) No. 25, "Accounting for Stock Issued to Employees" and related interpretations in accounting for its stock options and other stock-based compensation in all periods presented. APB No. 25 requires the use of the intrinsic value method, which measures compensation cost as the excess, if any, of the quoted market price of the stock at the measurement date over the amount an employee must pay to acquire the stock. The company makes disclosures of pro forma net earnings and earnings per share as if the fair-value-based method of accounting had been applied as required by SFAS No. 123, "Accounting for Stock-Based Compensation" and as amended by SFAS No. 148, "Accounting for Stock-Based Compensation – Transition and Disclosure" (see Note 18).

Employee Stock Ownership Plan

We account for our employee stock ownership plan (ESOP) in accordance with Statement of Position (SOP) No. 93-6 for PPG common stock purchased after Dec. 31, 1992 (new ESOP shares). As permitted by SOP No. 93-6, shares purchased prior to Dec. 31, 1992 (old ESOP shares), continue to be accounted for in accordance with SOP No. 76-3. ESOP shares are released for future allocation to participants based on the ratio of debt service paid during the year on loans used by the ESOP to purchase the shares to the remaining debt service on these loans. These loans are a combination of borrowings guaranteed by PPG and borrowings by the ESOP directly from PPG. Borrowings from third parties are included in debt in our balance sheet (see Note 7). Unearned compensation, reflected as a reduction of shareholders' equity, principally represents the unpaid balance of all of the ESOP's loans. Dividends received by the ESOP can be used to pay debt service.

Notes

For old ESOP shares, compensation expense is equal to cash contributed to the ESOP by the Company less the ESOP interest expense element of such contributions. Dividends on old ESOP shares are deducted from retained earnings. Old ESOP shares are considered to be outstanding in computing earnings per common share. For new ESOP shares, compensation expense is equal to the Company's matching contribution (see Note 16). Dividends on released new ESOP shares are deducted from retained earnings, and dividends on unreleased shares are reported as a reduction of debt or accrued interest. Only new ESOP shares that have been released are considered outstanding in computing earnings per common share.

Derivative financial instruments

Effective Jan. 1, 2001, the Company adopted the provisions of SFAS No. 133, "Accounting for Derivative Instruments and Hedging Activities," as amended by SFAS No. 138, "Accounting for Certain Derivative Instruments and Certain Hedging Activities." These standards require the Company to recognize all derivative instruments as either assets or liabilities at fair value, most of which were previously not recorded on the balance sheet. The accounting for changes in the fair value of a derivative depends on the use of the derivative. To the extent that a derivative is effective as a cash flow hedge of an exposure to future changes in value, the change in fair value of the derivative is deferred in other comprehensive income. Any portion considered to be ineffective will be reported in earnings immediately. To the extent that a derivative is effective as a hedge of an exposure to future changes in fair value, the change in the derivative's fair value will be offset in the statement of income by the change in fair value of the item being hedged.

Adoption of these new accounting standards on Jan. 1, 2001 resulted in an increase in current assets, current liabilities and other comprehensive income of \$70 million, \$26 million and \$43 million, respectively, with a cumulative after-tax increase in net income of less than \$1 million. This increase to other comprehensive income principally represents the deferred gain on outstanding natural gas option and swap contracts as of Jan. 1, 2001.

Prior to adoption of the provisions of SFAS No. 133, gains and losses on derivative financial instruments that were used to hedge foreign currency, interest rate, and natural gas price changes were not recognized until the hedged transaction was reflected in the statement of income. Premiums paid on foreign currency option contracts were amortized over the lives of the contracts. Unrealized gains and losses from forward currency contracts that hedged anticipated transactions did not previously qualify for deferral accounting treatment.

Other new accounting standards

In August 2001, the FASB issued SFAS No. 143, "Accounting for Asset Retirement Obligations" which is effective Jan. 1, 2003. The cumulative effect of this change

in accounting will decrease our 2003 net income by less than \$10 million and will not have a material impact on future results of operations or financial condition.

In June 2002, the FASB issued SFAS No. 146, "Accounting for Costs Associated with Exit or Disposal Activities." This standard requires costs associated with exit or disposal activities to be recognized when they are incurred and applies prospectively to such activities that are initiated after Dec. 31, 2002. The provisions of this standard are not expected to have a material effect on PPG's future results of operations or financial condition.

In November 2002, the FASB issued Interpretation No. 45, "Guarantor's Accounting and Disclosure Requirements for Guarantees, Including Indirect Guarantees of Indebtedness of Others." Interpretation No. 45 requires the recognition of liabilities for guarantees that are issued or modified subsequent to Dec. 31, 2002. The liabilities should reflect the fair value, at inception, of the guarantors' obligations to stand ready to perform, in the event that the specified triggering events or conditions occur. We are currently evaluating the provisions of this interpretation; however, we do not believe they will have a material effect on PPG's future results of operations or financial condition. The Interpretation also requires disclosure of accounting policies and methodologies with respect to warranty accruals, as well as a reconciliation of the change in these accruals for the reporting period. Product warranty accruals as of Dec. 31, 2002 and 2001, as well as the related charges for 2002 were not material.

In January 2003, the FASB issued Interpretation No. 46, "Consolidation of Variable Interest Entities." Interpretation No. 46 requires unconsolidated variable interest entities to be consolidated by their primary beneficiaries if the entities do not effectively disperse the risks and rewards of ownership among their owners and other parties involved. The provisions of Interpretation No. 46 are applicable immediately to all variable interest entities created after Jan. 31, 2003 and variable interest entities in which an enterprise obtains an interest in after that date, and for variable interest entities created before this date, the provisions are effective July 1, 2003. We are currently evaluating the provisions of this interpretation; however, we do not believe they will have a material impact on our accounting for existing investments.

Reclassifications

Certain amounts in the 2001 and 2000 financial statements have been reclassified to be consistent with the 2002 presentation.

2. Acquisitions and Business Restructuring

During the past three years, we have acquired a number of businesses, all of which were recorded using the purchase method of accounting. Accordingly, the results of operations of the acquired companies have been included in our consolidated results from their respective acquisition dates.

Notes

The cost of the acquisitions was \$22 million in 2002, \$10 million in 2001 and \$115 million plus the assumption of indebtedness of \$1 million in 2000.

In July 2000, PPG and Apogee Enterprises, Inc. (Apogee) combined their U.S. automotive replacement glass distribution businesses, creating a new entity, PPG Auto Glass L.L.C. (PPG Auto Glass). PPG contributed net assets with a basis of \$39 million and has a 66 percent ownership interest in PPG Auto Glass. Apogee contributed net assets with a fair value of \$31 million in exchange for its 34 percent ownership interest. In February 2000, we acquired Monarch Paint Co., an architectural coatings producer. Additionally, during 2002 and 2001, we made several small acquisitions.

During the first quarter of 2002, the Company finalized plans to reduce costs, increase efficiencies and accelerate performance improvement and took a pretax charge of \$81 million for restructuring and other related activities, including severance and other costs of \$66 million and asset dispositions of \$15 million. It is expected that these activities will be completed by June 2003. The details of this charge were as follows:

(Millions, except no. of employees)	Severance and Other Costs	Asset Dispositions	Total Charge	Employees Covered
Coatings	\$ 62	\$ 15	\$ 77	1,004
Glass	1	—	1	22
Chemicals	1	—	1	20
Corporate	2	—	2	20
Total	\$ 66	\$ 15	\$ 81	1,066
Activity	(28)	(15)	(43)	(686)
<i>Balance at Dec. 31, 2002</i>	\$ 38	\$ —	\$ 38	380

During the first quarter of 2001, the Company finalized plans to reduce costs, increase efficiencies and accelerate performance improvement and took a pretax charge of \$101 million for restructuring and other related activities, including severance and other costs of \$67 million and asset dispositions of \$34 million. As of Dec. 31, 2002, these actions are complete. The details of this charge were as follows:

(Millions, except no. of employees)	Severance and Other Costs	Asset Dispositions	Total Charge	Employees Covered
Coatings	\$ 60	\$ 23	\$ 83	1,072
Glass	4	6	10	254
Chemicals	2	5	7	23
Corporate	1	—	1	18
Total	\$ 67	\$ 34	\$ 101	1,367
Activity	(67)	(34)	(101)	(1,367)
<i>Balance at Dec. 31, 2002</i>	\$ —	\$ —	\$ —	—

In conjunction with the 2001 first quarter charge, an additional \$2 million of restructuring costs were recorded in 2001 as incurred and during the second quarter of 2002, \$4 million of the initial \$101 million charge related to the coatings segment was reversed to income.

During 2000, we finalized restructuring plans for certain locations related to the integration of the global automotive refinish, automotive and industrial coatings businesses of Imperial Chemical Industries PLC and the aerospace coatings and sealant maker PRC-DeSoto International, Inc. These restructuring plans were originally developed at the acquisition date (principally July 1999). The plans covered severance benefits for 618 employees, as well as other costs, and resulted in an increase in goodwill of \$24 million and a pretax charge of \$1 million in 2000. As of Dec. 31, 2002, \$22 million has been paid including \$20 million to 618 employees. The remaining reserve of \$3 million will cover remaining lease costs.

During 2000, PPG Auto Glass accrued severance and other restructuring related costs of \$10 million, resulting in an increase to goodwill of \$6 million and a pretax charge of \$4 million. In addition, PPG Auto Glass incurred one-time integration costs of \$2 million. The restructuring plans included severance benefits for 133 employees and other exit costs. These actions are complete.

In the fourth quarter of 2000, we took a charge of \$3 million related to work force reductions in our coatings business for 65 people. These actions were completed in 2001. Additionally, in 2000 severance reserves of \$5 million related to a 1999 restructuring plan were reversed due to changes in estimates.

3. Working Capital Detail

(Millions)	2002	2001
Receivables		
Customers	\$1,387	\$1,339
Other	147	121
Allowance for doubtful accounts	(48)	(44)
Total	\$1,486	\$1,416
Inventories⁽¹⁾		
Finished products	\$ 548	\$ 516
Work in process	113	106
Raw materials	157	166
Supplies	124	116
Total	\$ 942	\$ 904
Accounts payable and accrued liabilities		
Trade creditors	\$ 675	\$ 610
Accrued payroll	232	208
Other postretirement and pension benefits	87	79
Income taxes	41	22
Other	343	340
Total	\$1,378	\$1,259

(1) Inventories valued using the LIFO method comprised 62% and 63% of total gross inventory values at Dec. 31, 2002 and 2001, respectively. If the first-in, first-out method of inventory valuation had been used, inventories would have been \$158 million and \$180 million higher at Dec. 31, 2002 and 2001, respectively. During the years ended Dec. 31, 2002 and 2001, certain inventories accounted for on the LIFO method of accounting were reduced, which resulted in the liquidation of certain quantities carried at costs prevailing in prior years. The net effect on earnings of these liquidations was not material.

Notes

4. Property

(Millions)	Useful Lives (years)	2002	2001
<i>Property⁽¹⁾</i>			
Land and land improvements	10-30	\$ 309	\$ 301
Buildings	20-50	1,126	1,099
Machinery and equipment	5-25	5,273	5,192
Other	3-20	419	384
Construction in progress		143	177
Total		\$7,270	\$7,153

(1) Interest capitalized in 2002, 2001 and 2000 was \$5 million, \$13 million and \$16 million, respectively.

5. Investments

(Millions)	2002	2001
Investments in equity affiliates	\$157	\$157
Marketable securities:		
Trading (See Note 12)	53	61
Available for sale	18	23
Other	34	64
Total	\$262	\$305

The Company's investments in equity affiliates is comprised principally of fifty-percent ownership interests in a number of joint ventures that manufacture and sell coatings, glass and chemicals products, the most significant of which are located in Asia.

In addition, we have a fifty-percent ownership interest in RS Cogen, L.L.C., which in December 2002 commenced toll production of electricity and steam primarily for PPG and its joint venture partner. The joint venture was formed with a wholly owned subsidiary of Entergy Corporation, in 2000 for the construction and operation of a \$300 million process steam, natural gas-fired cogeneration facility in Lake Charles, La., the majority of which was financed by a syndicate of banks. PPG's commitment to purchase electricity and steam from the joint venture approximates \$23 million per year subject to contractually defined inflation adjustments for a twenty year period. The purchases for the year ended Dec. 31, 2002 were less than \$1 million.

Summarized financial information of our equity affiliates on a 100 percent basis is as follows:

(Millions)	2002	2001
Working capital	\$ 108	\$ 153
Property, net	693	622
Short-term debt	(99)	(113)
Long-term debt	(319)	(313)
Other, net	16	21
Net assets	\$ 399	\$ 370

(Millions)	2002	2001	2000
Revenues	\$580	\$681	\$814
Net (loss) earnings	\$ (2)	\$ 31	\$ 79

PPG's share of undistributed net earnings of equity affiliates was \$73 million and \$52 million at Dec. 31, 2002 and 2001, respectively. Dividends received from equity affiliates were \$6 million, \$26 million and \$20 million in 2002, 2001 and 2000, respectively.

At Dec. 31, 2002 and 2001, there were unrealized gains of \$10 million and \$17 million, respectively, and unrealized losses of \$1 million at Dec. 31, 2002 and 2001 recorded in "Accumulated other comprehensive loss" in the accompanying balance sheet related to marketable securities available for sale.

6. Goodwill and Other Identifiable Intangible Assets

The change in the carrying amount of goodwill attributable to each business segment for the year ended Dec. 31, 2002 was as follows:

(Millions)	Coatings	Glass	Chemicals	Total
Balance, Dec. 31, 2001	\$873	\$79	\$20	\$ 972
Reclass assembled workforce, net of taxes (See Note 1)	15	—	—	15
Balance, Jan. 1, 2002	\$888	\$79	\$20	\$ 987
Goodwill acquired	12	—	—	12
Currency translation	39	5	4	48
Balance, Dec. 31, 2002	\$939	\$84	\$24	\$1,047

The change in the carrying amount of acquired trademarks with indefinite lives for the year ended Dec. 31, 2002 was as follows:

Balance, Dec. 31, 2001	\$158
Cumulative effect of accounting change — impairment adjustment (See Note 1)	(14)
Balance, Jan. 1, 2002 and Dec. 31, 2002	\$144

The Company's identifiable intangible assets with finite lives are being amortized over their estimated useful lives and are detailed below.

	Dec. 31, 2002			Dec. 31, 2001		
	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
(Millions)						
Acquired technology	\$348	\$(82)	\$266	\$348	\$(60)	\$288
Assembled workforce	—	—	—	29	(10)	19
Other	167	(63)	104	147	(42)	105
Balance	\$515	\$(145)	\$370	\$524	\$(112)	\$412

Aggregate amortization expense was \$32 million, \$72 million and \$73 million in 2002, 2001 and 2000, respectively. The estimated future amortization expense of identifiable intangible assets during the next five years is (in millions) \$31 in 2003, \$30 in 2004, \$29 in 2005, \$28 in 2006 and \$27 in 2007.

Notes

7. Debt and Bank Credit Agreements and Leases

(Millions)	2002	2001
6 ¹ / ₄ % non-callable notes, due 2002	\$ —	\$ 100
6 ³ / ₄ % non-callable notes, due 2004	299	299
6 ⁷ / ₈ % non-callable debentures, due 2005 ⁽¹⁾	100	100
6 ¹ / ₂ % notes, due 2007 ⁽¹⁾	150	150
7.05% notes, due 2009 ⁽¹⁾	298	298
6 ⁷ / ₈ % notes, due 2012	100	100
7 ³ / ₈ % notes, due 2016	149	149
6 ¹ / ₂ % notes, due 2017	74	74
7.4% notes, due 2019	199	199
9% non-callable debentures, due 2021	148	148
Impact of derivatives on debt ⁽¹⁾	43	3
ESOP notes ⁽²⁾		
Fixed-rate notes, weighted average 8.5%	31	36
Variable-rate notes, weighted average 1.9% at Dec. 31, 2002	46	60
Various other U.S. debt, weighted average 2.7% at Dec. 31, 2002	49	52
Various other non-U.S. debt, weighted average 5.1% at Dec. 31, 2002	35	46
Capital lease obligations	10	9
Total	1,731	1,823
Less payments due within one year	32	124
Long-term debt	\$1,699	\$1,699

(1) PPG entered into several interest rate swaps which have the effect of converting \$400 million of these fixed rate notes to variable rates, based on three-month London Interbank Offered Rate (LIBOR). The weighted average effective interest rate for these borrowings, including the effects of the outstanding swaps was 4.5% and 6.6% for the years ended Dec. 31, 2002 and 2001, respectively. Refer to Notes 1 and 9 for additional information.

(2) See Note 1 for discussion of ESOP borrowings. The fixed- and variable-rate notes mature in 2009 and require annual principal payments from 2003 to 2008.

Aggregate maturities during the next five years are (in millions) \$32 in 2003, \$339 in 2004, \$116 in 2005, \$19 in 2006 and \$163 in 2007.

During 2001, the Company renegotiated \$1.2 billion in credit lines which support its commercial paper programs in the United States and Europe. This facility was comprised of a \$600 million portion having a 5-year term and a \$600 million portion having a 364-day term. During 2002, the 364-day term portion was reduced to \$555 million. The facility fee paid on the committed amount is 7¹/₂ basis points on the 5-year portion and six basis points on the 364-day portion. There is also a \$25 million credit line, relating to a U.S. subsidiary, that will expire in December 2003 and requires payment of annual fees equal to 10 basis points on the unused portion of the line. At Dec. 31, 2002, no amounts were outstanding under these credit lines.

Our non-U.S. operations have other uncommitted lines of credit totaling \$314 million of which \$48 million was used at Dec. 31, 2002. These uncommitted lines of credit are subject to cancellation at any time and are not subject to any commitment fees.

PPG is in compliance with the restrictive covenants under its various credit agreements, loan agreements and indentures. The Company's revolving credit agreements, under which there are currently no borrowings, and a portion of PPG's ESOP Notes, include financial ratio covenants. The most restrictive of these covenants requires that the amount of long-term senior debt outstanding not exceed 55% of the Company's tangible net assets. At Dec. 31, 2002, long-term senior debt was 39% of the Company's tangible net assets. In the event of a breach of this covenant, each holder of the ESOP notes would have the right to require the Company to redeem the notes. Additionally, substantially all of our debt agreements contain customary cross-default provisions. Those provisions state that a default on a debt service payment of \$10 million or more for longer than the grace period provided (usually 10 days) under one agreement may constitute an event of default of other agreements.

None of our debt agreements contain covenants that would be impacted by any change in our credit rating. However, the majority of the Company's European debt is raised under an 800 million Euro Commercial Paper Program. Should the Company's credit rating fall below its current level, access to the European commercial paper market could be severely impacted; however, the Company could replace this debt with borrowings in the U.S. commercial paper market or under our revolving credit agreement.

None of our primary debt obligations are secured or guaranteed by our affiliates.

The Dec. 31, 2002 and 2001, balances for "Short-term debt and current portion of long-term debt" include, respectively, \$225 million and \$451 million of commercial paper and \$95 million and \$121 million of other short-term borrowings. The \$225 million relates to our euro-denominated commercial paper program. The weighted-average interest rates of short-term borrowings as of Dec. 31, 2002 and 2001, were 3.0% and 3.7%, respectively.

Interest payments in 2002, 2001 and 2000 totaled \$137 million, \$180 million and \$195 million, respectively.

Rental expense for operating leases was \$121 million, \$118 million and \$120 million in 2002, 2001 and 2000, respectively. Minimum lease commitments for operating leases that have initial or remaining lease terms in excess of one year at Dec. 31, 2002, are (in millions) \$63 in 2003, \$49 in 2004, \$39 in 2005, \$29 in 2006, \$23 in 2007 and \$63 thereafter, which includes rent of approximately \$12 million, per year, through 2010, and \$6 million in 2011, related to the July 1999 sale-leaseback of our Pittsburgh headquarters complex.

Notes

The Company had outstanding letters of credit of \$70 million and guarantees of \$40 million at Dec. 31, 2002. The letters of credit secure the Company's performance to third parties under certain self-insurance programs and other commitments made in the ordinary course of business. The guarantees relate primarily to debt of certain entities in which PPG has an ownership interest and are generally secured by the assets of the related entity. The Company does not believe any loss related to these letters of credit or guarantees is likely.

8. Financial Instruments, Excluding Derivative Financial Instruments

Included in PPG's financial instrument portfolio are cash and cash equivalents, marketable equity securities, company-owned life insurance and short- and long-term debt instruments. The most significant instrument, long-term debt (excluding capital lease obligations), had carrying and fair values totaling \$1,721 million and \$1,832 million, respectively, at Dec. 31, 2002. The corresponding amounts at Dec. 31, 2001, were \$1,814 million and \$1,827 million, respectively. The fair values of the other financial instruments approximated their carrying values, in the aggregate.

The fair values of the debt instruments were based on discounted cash flows and interest rates available to the Company for instruments of the same remaining maturities.

9. Derivative Financial Instruments

PPG uses derivative instruments to manage its exposure to fluctuating natural gas prices through the use of natural gas swap and option contracts. PPG also uses forward currency contracts as hedges against its exposure to variability in exchange rates on short-term intercompany borrowings denominated in foreign currencies and to translation risk, and interest rate swaps to hedge its exposure to changing interest rates.

PPG enters into derivative financial instruments with high credit quality counterparties and diversifies its positions among such counterparties in order to reduce its exposure to credit losses. The Company has not experienced any credit losses on derivatives during the three-year period ended Dec. 31, 2002.

PPG also manages its foreign currency transaction risk to minimize the volatility of cash flows caused by currency fluctuations by forecasting foreign currency-denominated cash flows of each subsidiary for a 12-month period and aggregating these cash inflows and outflows in each currency to determine the overall net transaction exposures. The expanding use of the euro has reduced our transaction risk because cash flows between our businesses in the twelve Euroland countries are now occurring in one currency. Decisions on whether to use derivative financial instruments to hedge the net transaction exposures are made based on the amount of those exposures, by currency, and an assessment of the near-term outlook for each

currency. The Company's policy permits the use of foreign currency forward and option contracts to hedge up to 70% of its anticipated net foreign currency cash flows over the next 12-month period. These contracts do not qualify for hedge accounting. Therefore, the change in the fair value of these instruments is recorded in "Other charges" in the accompanying statement of income in the period of change. The amount recorded in earnings for the years ended Dec. 31, 2002 and 2001 was a loss of \$3 million and a gain of \$1 million, respectively. The fair value of these contracts was an asset of \$1 million as of Dec. 31, 2002 and 2001.

The sales, costs, assets and liabilities of our non-U.S. operations must be reported in U.S. dollars in order to prepare consolidated financial statements which gives rise to translation risk. The Company monitors its exposure to translation risk and enters into derivative foreign currency contracts to hedge its exposure, as deemed appropriate. This risk management strategy does not qualify for hedge accounting under the provisions of SFAS No. 133; therefore, changes in the fair value of these instruments are recorded in "Other charges" in the accompanying statement of income in the period of change. A gain of \$1 million was recorded for the year ended Dec. 31, 2001. No derivative instruments were acquired to hedge translation risk during 2002.

PPG designates forward currency contracts as hedges against the Company's exposure to variability in exchange rates on short-term intercompany borrowings denominated in foreign currencies. To the extent effective, changes in the fair value of these instruments are deferred in accumulated other comprehensive income and subsequently reclassified to "Other charges" in the accompanying statement of income as foreign exchange gains and losses are recognized on the related intercompany borrowings. The portion of the change in fair value considered to be ineffective is recognized in "Other charges" in the accompanying statement of income. The amount recorded in earnings for the years ended Dec. 31, 2002 and 2001 was a loss of \$2 million and a gain of less than \$1 million, respectively. The fair value of these contracts was a liability of \$1 million and \$2 million as of Dec. 31, 2002 and 2001, respectively.

The Company manages its interest rate risk by balancing its exposure to fixed and variable rates while attempting to minimize its interest costs. Generally, the Company maintains variable interest rate debt at a level of 25% to 50% of total borrowings. PPG principally manages its fixed and variable interest rate risk by retiring and issuing debt from time to time. PPG also manages its interest rate risk through the use of interest rate swaps. Currently, these swaps convert \$400 million of fixed rate debt to variable rate debt and are designated as fair value hedges. As such, the swaps are carried at fair value. Changes in the fair value of these swaps and that of the related debt are recorded in "Interest expense" in the accompanying statement of income, the net of which is zero. The fair value of these contracts was an asset of \$23 million and a liability of \$20 million as of Dec. 31, 2002 and 2001, respectively.

Notes

The Company uses derivative instruments to manage its exposure to fluctuating natural gas prices through the use of natural gas swap and option contracts. These instruments mature over the next twelve months. To the extent that these instruments are effective in hedging PPG's exposure to price changes, changes in the fair values of the hedge contracts are deferred in accumulated other comprehensive income and reclassified to cost of sales as the natural gas is purchased. Changes in the time value of option contracts have been excluded from the Company's assessment of hedge effectiveness and reported in earnings immediately. The amount of ineffectiveness, which is reported in "Other charges" in the accompanying statement of income for the years ended Dec. 31, 2002 and 2001, was not material. The fair value of these contracts was an asset of \$24 million and a liability of \$12 million as of Dec. 31, 2002 and 2001, respectively.

In November 2002, PPG entered into a one-year equity forward arrangement with a bank in order to partially mitigate the impact of changes in the fair value of PPG stock that is to be contributed to the asbestos settlement trust as discussed in Note 13. This instrument is recorded at fair value as an asset or liability and changes in the fair value of this instrument are reflected in "Asbestos settlement, net" in the accompanying statement of income. As of Dec. 31, 2002, PPG had recorded a current asset of \$1 million and recognized income of \$1 million for the year.

In accordance with the terms of this instrument the bank has purchased 504,900 shares of PPG stock on the open market at a cost of \$24 million (principal amount). PPG will pay to the bank interest based on the principal amount and the bank will pay to PPG an amount equal to the dividends paid on these shares during the period this instrument is outstanding. The difference between the principal amount, and any amounts related to unpaid interest or dividends, and the current market price for these shares will represent the fair value of the instrument as well as the amount that PPG would pay or receive if the bank chose to net settle the instrument. Alternatively, the bank may, at its option, require PPG to purchase the shares covered by the arrangement at the market price on the date of settlement.

No derivative instrument initially designated as a hedge instrument was undesignated or discontinued as a hedging instrument during 2002 or 2001. During the year ended Dec. 31, 2002, the net change in accumulated other comprehensive loss related to derivatives was \$17 million, net of tax. This was comprised of a \$1 million realized loss which was reclassified from accumulated other comprehensive loss to earnings and an unrealized gain of \$16 million. The

realized loss relates to the settlement, during the period, of natural gas swap and forward currency contracts. The unrealized gain during the period relates primarily to the changes in fair value of the natural gas contracts offset, in part, by an unrealized loss for interest rate swaps owned by one of the Company's affiliates accounted for under the equity method of accounting. During the year ended Dec. 31, 2001, the net change in accumulated other comprehensive loss related to derivatives totaled \$51 million, net of tax, excluding the transition adjustment. This was comprised of a \$7 million realized gain which was reclassified from accumulated other comprehensive loss to earnings and an unrealized loss of \$44 million.

The fair values of all outstanding derivative instruments were determined using quoted market prices.

10. Earnings Per Common Share

The (loss) earnings per common share calculations for the three years ended Dec. 31, 2002 are as follows:

<i>(Millions, except per share amounts)</i>	2002	2001	2000
<i>(Loss) earnings per common share</i>			
Net (loss) income	\$ (69)	\$ 387	\$ 620
Weighted average common shares outstanding	169.1	168.3	172.3
<i>(Loss) earnings per common share</i>	<i>\$ (0.41)</i>	<i>\$ 2.30</i>	<i>\$ 3.60</i>
<i>(Loss) earnings per common share — assuming dilution</i>			
Net (loss) income	\$ (69)	\$ 387	\$ 620
Weighted average common shares outstanding	169.1	168.3	172.3
Effect of dilutive securities			
Stock options	0.2	0.2	0.1
Other stock compensation plans	0.6	0.7	1.2
Potentially dilutive common shares	0.8	0.9	1.3
Adjusted weighted average common shares outstanding	169.9	169.2	173.6
<i>(Loss) earnings per common share — assuming dilution</i>	<i>\$ (0.41)</i>	<i>\$ 2.29</i>	<i>\$ 3.57</i>

There were 9.3 million, 11.5 million and 12.0 million stock options excluded in 2002, 2001 and 2000, respectively, from the computation of diluted earnings per common share due to their anti-dilutive effect.

Notes

11. Income Taxes

The following is a reconciliation of pretax (loss) income and income tax (benefit) expense which shows the impact that the asbestos settlement charge had on our effective tax rate:

(Millions)	2002	2001	2000
Pretax (loss) income	\$ (28)	\$666	\$1,017
Impact of asbestos settlement charge	755	—	—
Pretax income excluding the asbestos impact	\$ 727	\$666	\$1,017
Income tax (benefit) expense	\$ (7)	\$247	\$ 369
Impact of asbestos settlement charge	271	—	—
Tax expense excluding the asbestos impact	\$ 264	\$247	\$ 369
Effective income tax rate	(25.00)%	37.07%	36.25%
Effective income tax rate excluding the asbestos impact	36.31%	37.07%	36.25%

The following is a reconciliation of the statutory U.S. corporate federal income tax rate to our effective income tax rate excluding the impact of the asbestos settlement charge.

(Percent of Pre-Tax Income)	2002	2001	2000
U.S. federal income tax rate	35.00%	35.00%	35.00%
Changes in rate due to:			
State and local taxes — U.S.	2.09	1.07	1.08
Taxes on non-U.S. earnings net of related tax credits	(1.08)	3.94	2.41
ESOP dividends	(1.73)	(1.98)	(1.26)
Other	2.03	(0.96)	(0.98)
Effective income tax rate excluding the asbestos impact	36.31%	37.07%	36.25%

The following table gives details of income tax expense reported in the accompanying statement of income.

(Millions)	2002	2001	2000
Current income taxes			
U.S. federal	\$ 182	\$129	\$200
Non-U.S.	73	102	95
State and local — U.S.	19	10	20
Total current	274	241	315
Deferred income taxes			
U.S. federal	(264)	33	39
Non-U.S.	(8)	(29)	23
State and local — U.S.	(9)	2	(8)
Total deferred	(281)	6	54
Total	\$ (7)	\$247	\$369

Net deferred income tax assets and liabilities as of Dec. 31, 2002 and 2001, are as follows:

(Millions)	2002	2001
Deferred income tax assets related to		
Employee benefits	\$ 303	\$ 303
Minimum pension liability	442	26
Asbestos settlement	271	—
Environmental	27	31
Operating loss and other carryforwards	62	75
Inventories	32	36
Property	24	26
Other	90	65
Valuation allowance	(46)	(50)
Total	1,205	512
Deferred income tax liabilities related to		
Property	400	400
Employee benefits	326	336
Intangibles	140	143
Other	41	37
Total	907	916
Deferred income tax assets (liabilities) — net	\$ 298	\$(404)

The 2002 overall effective tax rate excluding the asbestos impact was favorably impacted by an improvement in the regional mix of non-U.S. taxable earnings offset by a higher effective state tax rate.

The 2001 overall effective tax rate was unfavorably impacted as the geographic spread of the restructuring charges provided a tax benefit of only 30%. In 2000, the overall effective tax rate was favorably impacted by an improvement in the regional mix of non-U.S. taxable earnings and a lower effective state tax rate. In addition, the rate impact of the write-off of a 50% owned equity investment, a significant portion of which was not deductible for tax purposes, was offset by the recognition of a U.S. income tax benefit associated with the losses of exiting our Asian glass operations.

At Dec. 31, 2002, subsidiaries of the Company had available net operating loss (NOL) carryforwards of approximately \$213 million for income tax purposes, of which approximately \$157 million has an indefinite expiration. The remaining \$56 million expires between the years 2003 and 2021. A valuation allowance has been established for carryforwards where the ability to utilize them is not likely.

Income before income taxes of our non-U.S. operations for 2002, 2001 and 2000 was \$199 million, \$140 million and \$280 million, respectively.

No deferred U.S. income taxes have been provided on certain undistributed earnings of non-U.S. subsidiaries, which amounted to \$922 million at Dec. 31, 2002 and \$715 million at Dec. 31, 2001. These earnings are considered to be reinvested for an indefinite period of time or will be repatriated when it is tax effective to do so. It is

Notes

not practicable to determine the deferred tax liability on these earnings.

The determination of annual income tax expense takes into consideration amounts which may be needed to cover exposures for open tax years. In 2002, the Company resolved all matters with the Internal Revenue Service (IRS) related to its federal income tax returns for the years 1994 to 1998, including matters that were on appeal related to the 1994 to 1996 tax returns. In connection with the resolution of these matters, the Company surrendered in July 2002 certain company-owned life insurance policies and received proceeds of \$32 million, which are included in "Reductions of other property and investments" in the investing activities section in the accompanying statement of cash flows. The Company does not expect any material impact on earnings to result from the resolution of matters related to open tax years, however, actual settlements may differ from amounts accrued.

Income tax payments in 2002, 2001 and 2000 totaled \$276 million, \$232 million and \$319 million, respectively.

12. Pensions and Other Postretirement Benefits

We have defined benefit pension plans that cover certain employees worldwide. PPG also sponsors defined benefit plans that provide postretirement medical and life insurance benefits for certain U.S. and Canadian employees and dependents. The Company has the right to modify or terminate certain of these defined benefit plans in the future. In general, U.S. salaried and certain wage employees hired after Jan. 31, 1993, were not, as of Dec. 31, 2000, entitled to postretirement medical benefits. At Dec. 31, 2000, the U.S. plans had provisions that capped the cost of postretirement medical benefits at 2003 levels for certain current and future retirees covered by bargaining plans and non-bargaining plans.

Effective August 1, 2001, the Company adopted new medical and prescription drug programs in the U.S. with cost sharing provisions that generally replaced the cap of postretirement medical benefits at 2003 levels for certain U.S. employees, retirees and their dependents. These programs require retiree contributions based on retiree-selected coverage levels and provide for the equal sharing of future cost increases between PPG and retirees. Other plan modifications were also implemented. Additionally, as of that date, active salaried and certain wage employees hired after Jan. 31, 1993 became entitled to postretirement medical benefits at retirement, after ten years of service.

The following table sets forth the changes in projected benefit obligations, plan assets, the funded status and the amounts recognized in our balance sheet for our defined benefit pension and other postretirement benefit plans.

(Millions)	Pensions		Other Postretirement Benefits	
	2002	2001	2002	2001
Projected benefit obligation, Jan. 1	\$ 2,414	\$ 2,247	\$ 823	\$ 601
Service cost	54	48	17	12
Interest cost	165	159	58	48
Plan amendments	21	11	—	26
Actuarial losses	171	103	176	210
Benefits paid	(161)	(152)	(81)	(72)
Businesses acquired	—	6	—	—
Foreign currency translation adjustments	41	(16)	—	(2)
Other	14	8	—	—
<i>Projected benefit obligation, Dec. 31</i>	<i>\$ 2,719</i>	<i>\$ 2,414</i>	<i>\$ 993</i>	<i>\$ 823</i>
Market value of plan assets, Jan. 1	\$ 2,423	\$ 2,637		
Actual return on plan assets	(280)	(80)		
Contributions	22	15		
Benefits paid	(159)	(142)		
Businesses acquired	—	6		
Plan expenses and other — net	(3)	3		
Foreign currency translation adjustments	27	(16)		
<i>Market value of plan assets, Dec. 31</i>	<i>\$ 2,030</i>	<i>\$ 2,423</i>		
Funded status	\$ (689)	\$ 9	\$(993)	\$(823)
Accumulated unrecognized:				
Actuarial losses	1,459	801	376	213
Prior service cost	103	99	21	24
Transition asset	—	(4)	—	—
Additional pension liability	(1,318)	(80)	—	—
<i>Net (accrued) prepaid benefit cost</i>	<i>\$ (445)</i>	<i>\$ 825</i>	<i>\$(596)</i>	<i>\$(586)</i>

Notes

The accumulated unrecognized actuarial losses for pensions relate primarily to the actual return on plan assets being less than the expected return on plan assets. The accumulated unrecognized actuarial losses for other postretirement benefits relate primarily to the use of higher medical healthcare cost trend rate assumptions in the valuation of the year-end projected benefit obligation (PBO). Since the accumulated unrecognized actuarial losses exceed 10% of the higher of the market value of plan assets or the PBO at the beginning of the year, amortization of such excess over a period of 11 to 13 years has been included in net pension and other postretirement benefit cost.

The following summarizes the current and noncurrent amounts recognized in the accompanying balance sheet for these plans:

(Millions)	Pensions		Other Postretirement Benefits	
	2002	2001	2002	2001
Prepaid benefit cost	\$ 49	\$ 982	\$ —	\$ —
Accrued benefit cost	(494)	(157)	(596)	(586)
<i>Net (accrued) prepaid benefit cost</i>	<i>\$(445)</i>	<i>\$ 825</i>	<i>\$(596)</i>	<i>\$(586)</i>

The PBO is the actuarial present value of benefits attributable to employee service rendered to date, including the effects of estimated future pay increases. The accumulated benefit obligation (ABO) also reflects the actuarial present value of benefits attributable to employee service rendered to date, but does not include the effects of estimated future pay increases. In order to measure the funded status for financial accounting purposes the ABO is compared to the market value of plan assets and amounts accrued for such benefits in the balance sheet.

At Dec. 31, 2002, the majority of our defined benefit pension plans had an ABO in excess of plan assets due primarily to a decrease in the market value of pension plan assets and the decline in the discount rate. The unfunded ABO at Dec. 31, 2002, was \$373 million. As a result, the Company recorded an additional minimum pension liability adjustment in 2002. This adjustment reduced the prepaid pension asset by \$912 million, increased the intangible pension asset by \$96 million and the minimum pension liability by \$326 million and reflected a deferred tax benefit of \$416 million with a resulting reduction in shareholders' equity through an increase in the accumulated other comprehensive loss of \$726 million.

The following reflects the balance sheet impact of the 2002 minimum pension liability adjustment:

(Millions)	2002	2002 Adjustment	2001
Other assets	\$ 101	\$ 96	\$ 5
Accumulated other comprehensive loss	775	726	49
Deferred income taxes	442	416	26
Prepaid benefit cost	(945)	(912)	(33)
<i>Minimum pension liability</i>	<i>\$(373)</i>	<i>\$(326)</i>	<i>\$(47)</i>

The minimum pension liability is included in "Accrued pensions" in the accompanying balance sheet.

The following summarizes the funded status of those pension plans that were underfunded on an ABO basis at Dec. 31, 2002 and 2001:

(Millions)	2002	2001
PBO	\$2,636	\$266
ABO	2,429	231
Market value of plan assets	1,955	89

The accrued benefit cost reflected in the accompanying balance sheet includes \$4 million and \$7 million, at Dec. 31, 2002 and 2001, for defined contribution plans.

Net periodic benefit cost (income) includes the following:

(Millions)	Pensions			Other Postretirement Benefits		
	2002	2001	2000	2002	2001	2000
Service cost	\$ 54	\$ 48	\$ 43	\$17	\$12	\$ 5
Interest cost	165	159	154	58	48	45
Expected return on plan assets	(224)	(279)	(296)	—	—	—
Amortization of transition assets	(4)	(5)	(5)	—	—	—
Amortization of prior service cost	18	17	16	3	3	12
Amortization of actuarial losses (gains)	45	7	2	13	1	(2)
<i>Net periodic benefit cost (income)</i>	<i>\$ 54</i>	<i>\$(53)</i>	<i>\$(86)</i>	<i>\$91</i>	<i>\$64</i>	<i>\$60</i>

Net periodic benefit cost (income) is included in "Cost of sales," "Selling, general and administrative" and "Research and development" in the accompanying statement of income.

In determining net periodic benefit cost (income), unrecognized prior service costs are amortized over periods ranging from 5 to 13 years.

Notes

The following weighted average assumptions were used to determine the benefit obligations and net periodic benefit cost (income) for our defined benefit pension and other postretirement benefit plans:

	2002	2001	2000
Discount rate ⁽¹⁾	6.5%	7.0%	7.3%
Expected return on assets ⁽²⁾	9.5%	10.9%	10.9%
Rate of compensation increase	4.1%	4.1%	4.1%

(1) Net periodic benefit cost (income) is determined using the previous year's discount rate.

(2) Applies only to defined benefit pension plans with pension assets.

The expected return on plan assets assumption for use in determining 2003 net periodic pension expense will be approximately 8.75%.

The weighted-average medical healthcare cost trend rate used was 10.0% for 2002 declining ratably to 4.0% in the year 2007. For 2003, the weighted-average medical healthcare cost trend rate used will be 11.0% declining gradually to 4.5% in the year 2008. If these 2003 trend rates were increased or decreased by one percentage point per year, such increases or decreases would have the following effects:

(Millions)	One-Percentage Point	
	Increase	Decrease
Increase (decrease) in the aggregate of service and interest cost components	\$ 7	\$ (6)
Increase (decrease) in the benefit obligation	\$73	\$(62)

The Company also incurred costs for multi-employer pension plans of \$1 million in each of the years 2002, 2001 and 2000. Multi-employer healthcare costs totaled \$1 million in each of the years 2002, 2001 and 2000.

The Company has a deferred compensation plan for certain key managers which allows them to defer a portion of their compensation in a phantom PPG stock account or other phantom investment accounts. The amount deferred earns a return based on the investment options selected by the participant. The amount owed to participants is an unfunded and unsecured general obligation of the Company. Upon retirement, death, disability or termination of employment, the compensation deferred and related accumulated earnings are distributed in cash or in PPG stock, based on the accounts selected by the participant.

Effective Oct. 1, 2000, the plan was amended to provide participants with expanded investment alternatives and the ability to transfer amounts between the phantom non-PPG stock investment accounts. Concurrent with the plan amendment and to mitigate the impact on compensation expense of changes in the market value of the liability, the Company purchased a portfolio of marketable securities that mirror the phantom non-PPG stock investment accounts selected by the participants except the money market accounts. The changes in market value of these securities

are also included in earnings. Trading will occur in this portfolio to align the securities held with the participant's phantom non-PPG stock investment accounts except the money market accounts.

The cost of the deferred compensation plan, comprised of dividend equivalents accrued on the phantom PPG stock account, investment income and the change in market value of the liability, was income of \$9 million, \$6 million and \$1 million in 2002, 2001 and 2000, respectively. These amounts are reflected in "Selling, general and administrative" in the accompanying statement of income. The change in market value of the investment portfolio in 2002, 2001 and 2000 was a loss of \$10 million, \$7 million and \$5 million, respectively, and is also reflected in "Selling, general and administrative."

The Company's obligations under this plan, which are included in "Other liabilities" in the accompanying balance sheet, were \$84 million and \$89 million at Dec. 31, 2002 and 2001, respectively, and the investments in marketable securities, which are included in "Investments" in the accompanying balance sheet, were \$53 million and \$61 million at Dec. 31, 2002 and 2001, respectively.

13. Commitments and Contingent Liabilities

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 product liability, contract, patent, environmental, antitrust and other matters arising out of the conduct of PPG's business. 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.

The Company has been named in a number of antitrust lawsuits, including suits alleging that PPG acted with competitors to fix prices and allocate markets in the automotive refinish industry and a class action relating to certain glass products. The automotive refinish claims have been

Notes

consolidated, but the proceedings are still at an early stage. All of the initial defendants in the glass class action antitrust case other than PPG, have settled. PPG believes it has meritorious defenses to these claims.

The Company has been a defendant since April 1994 in a suit filed by Marvin Windows and Doors (Marvin) alleging numerous claims, including breach of warranty. All of the plaintiff's claims, other than breach of warranty, have been dismissed. However, on Feb. 14, 2002, a federal jury awarded Marvin \$136 million on the remaining claim. Subsequently, the court added \$20 million for interest bringing the total judgment to \$156 million. PPG filed an appeal on July 8, 2002. PPG believes it has meritorious defenses to the plaintiff's claims and has reasonable prospects of prevailing on appeal.

For over thirty years, PPG has been a defendant in lawsuits involving claims alleging personal injury from exposure to asbestos. At Dec. 31, 2002, PPG was one of many defendants in numerous asbestos-related lawsuits involving approximately 116,000 claims. Most of PPG's potential exposure relates to allegations by plaintiffs that PPG should be liable for injuries involving asbestos-containing thermal insulation products manufactured and distributed by Pittsburgh Corning Corporation (PC). PPG and Corning Incorporated are each 50% shareholders of PC. PPG has denied responsibility for, and has defended, all claims for any injuries caused by PC products.

On April 16, 2000, PC filed for Chapter 11 Bankruptcy in the Federal Bankruptcy Court in Pittsburgh, Pennsylvania. Accordingly, in the first quarter of 2000, PPG recorded an after-tax charge of \$35 million for the write-off of all of its investment in PC. As a consequence of the bankruptcy filing and the various motions and orders in that proceeding, the asbestos litigation against PPG (as well as against PC) has been stayed and the filing of additional asbestos suits against them has been enjoined, until thirty days after the effective date of a confirmed plan of reorganization for PC substantially in accordance with the settlement arrangement discussed below. The stay may be terminated if the Bankruptcy Court determines that such a plan will not be confirmed, or the settlement arrangement set forth below is not likely to be consummated.

On May 14, 2002, PPG announced that it had agreed with several other parties, including certain of its insurance carriers, the official committee representing asbestos claimants in the PC bankruptcy (ACC), and the legal representatives of future asbestos claimants appointed in the PC bankruptcy, on the terms of a settlement arrangement relating to asbestos claims against PPG and PC.

The parties to the settlement arrangement intend to have the settlement terms incorporated into a bankruptcy reorganization plan for PC. The parties to the settlement expect that PC will file the plan of reorganization, along with a disclosure statement describing the plan, with the Bankruptcy Court. Other parties with an interest in the

bankruptcy proceeding may file objections to the plan of reorganization. After considering any objections at a hearing, the Bankruptcy Court, if it approves the disclosure statement, would permit the plan of reorganization and a disclosure statement to be sent to PC's creditors for voting. In order to approve the plan, at least two-thirds in amount and more than one-half in number of the allowed creditors in a given class must vote in favor of the plan, and for a plan to contain a channeling injunction for present and future asbestos claims under §524(g) of the Bankruptcy Code, as described below, seventy-five percent of the asbestos claimants voting must vote in favor of the plan. Assuming that the plan receives the requisite votes, the judge would conduct another hearing regarding the fairness of the settlement, including whether the plan would be fair with respect to present and future claimants, whether such claimants would be treated in substantially the same manner, and whether the protection provided to PPG and its participating insurers would be fair in view of the assets they would convey to the asbestos settlement trust (Trust) to be established as part of the settlement arrangement. At that hearing, other parties in interest could raise objections to the plan. Following that hearing, the Bankruptcy Court would enter a confirmation order if all requirements to confirm a plan of reorganization under the Bankruptcy Code, including the requirements described above, have been satisfied; this order may be appealed to the District Court. (The District Court may join the Bankruptcy Court in the confirmation order, in which case an appeal to the District Court would not be necessary.) Assuming that the District Court approves the confirmation order, interested parties could appeal the order to the U.S. Circuit Court and subsequently to the U.S. Supreme Court. The settlement would not become effective until 30 days after the plan of reorganization was finally approved by an appropriate court order that was no longer subject to appeal (the "Effective Date").

Parties to the settlement are in the process of preparing documents necessary to implement the settlement, including the bankruptcy reorganization plan for PC along with the disclosure statement describing the plan. The PC plan of reorganization and disclosure statement have not yet been filed with the Bankruptcy Court, although the parties continue to progress toward finalizing those documents and have appeared periodically before the Bankruptcy Court to report their progress.

If the PC plan of reorganization incorporating the settlement terms were approved by the Bankruptcy Court and all legal requirements under the Bankruptcy Code or otherwise were satisfied, the Court would enter a channeling injunction under §524(g) of the Bankruptcy Code, prohibiting present and future claimants from asserting bodily injury claims against PPG or its subsidiaries or PC relating to the manufacture, distribution or sale of asbestos-containing products by PC or PPG or its subsidiaries. The injunction would also prohibit co-defendants in those cases

Notes

from asserting claims against PPG or its subsidiaries for contribution, indemnification or other recovery. All such claims would have to be filed with the Trust and only paid from the assets of the Trust.

The channeling injunction would not extend to claims against PPG alleging injury caused by asbestos on premises owned, leased or occupied by PPG (so called "premises claims"), or claims alleging property damage resulting from asbestos. Approximately 9,000 of the 116,000 claims pending against PPG and its subsidiaries are premises claims. Many of PPG's premises claims have been resolved without payment from PPG. To date, PPG has paid about \$7 million to settle approximately 1,100 premises claims, virtually all of which has been covered by PPG's insurers. There are no property damage claims pending against PPG or its subsidiaries. PPG believes that it has adequate insurance for the asbestos claims not covered by this injunction and that any financial exposure resulting from such claims will not have a material effect on PPG's consolidated financial position, liquidity or results of operations.

PPG has no obligation to pay any amounts under the settlement until the Effective Date. PPG and certain of its insurers (along with PC) would then fund the Trust, which would provide the sole source of payment for all present and future asbestos bodily injury claims against PPG, its subsidiaries or PC alleged to be caused by the manufacture, distribution or sale of asbestos products by these companies. PPG would convey the following assets to the Trust. First, PPG would convey the stock it owns in PC and Pittsburgh Corning Europe. Second, PPG would transfer 1,388,889 shares of PPG's common stock. Third, PPG would make aggregate cash payments to the Trust of approximately \$998 million, payable according to a fixed payment schedule over 21 years, beginning on June 30, 2003, or, if later, the Effective Date. PPG would have the right, in its sole discretion, to prepay these cash payments to the Trust at any time at a discount rate of 5.5% per annum. In addition to the conveyance of these assets, PPG would pay \$30 million in legal fees and expenses to be incurred by the Trust to recover proceeds from certain historical insurance assets, including policies issued by certain insurance carriers that are not participating in the settlement, the rights to which would be assigned to the Trust.

PPG's participating historical insurance carriers would make cash payments to the Trust of approximately \$1.7 billion between the Effective Date and 2023. These payments could also be prepaid to the Trust at any time at a discount rate of 5.5% per annum as of the prepayment date. In addition, PPG would assign to the Trust its rights, insofar as they relate to the asbestos claims to be resolved by the Trust, to the proceeds of policies issued by certain insurance carriers that are not participating in the settlement and from the estates of insolvent insurers and state insurance guaranty funds.

PPG would grant asbestos releases to all participating insurers, subject to a coverage-in-place agreement with certain insurers for the continuing coverage of premises claims (discussed above). PPG would grant certain participating insurers full policy releases on primary policies and full product liability releases on excess coverage policies. PPG would also grant certain other participating excess insurers credit against their product liability coverage limits.

In the second quarter of 2002, PPG recorded a pretax charge of \$772 million, or \$495 million after-tax, reflecting the estimated cost of this settlement. The amount includes the net present value, using a discount rate of 5.5%, of the aggregate cash payments of approximately \$998 million which will be made by PPG to the Trust. This amount also included the carrying value of PPG's stock in Pittsburgh Corning Europe, the fair value as of June 30, 2002 of 1,388,889 shares of PPG common stock and \$30 million in legal fees of the Trust to be paid by PPG, which together with the first payment scheduled to be made to the Trust on June 30, 2003, have been reflected in the current liability for asbestos settlement in the accompanying balance sheet. The net present value of the remaining payments of \$566 million has been recorded in the noncurrent liability for asbestos settlement in the accompanying balance sheet. During the third and fourth quarters of 2002, income was recognized and the current liability for the asbestos settlement was reduced by \$16 million, reflecting the decline in the fair value from June 30, 2002 to Dec. 31, 2002 of the shares of PPG common stock which are to be transferred to the asbestos settlement trust. In addition, a change in the fair value of the related equity forward instrument (see Note 9) reduced the asbestos settlement charge by \$1 million.

Because the filing of asbestos claims against the Company has been enjoined since April 2000, a significant number of additional claims may be filed against the Company if the Bankruptcy Court stay were to expire. If the settlement is not implemented, for any reason, and the Bankruptcy Court stay expires, the Company intends to vigorously defend the pending and any future asbestos claims against it and its subsidiaries. The Company believes that it is not responsible for any injuries caused by PC products, which represent the preponderance of the pending bodily injury claims against it. Prior to 2000, PPG had never been found liable for any such claims, in numerous cases PPG had been dismissed on motions prior to trial, and aggregate settlements by PPG to date have been immaterial. In January 2000, in a trial in a state court in Texas involving six plaintiffs, the jury found PPG not liable. However, a week later in a separate trial also in a state court in Texas, another jury found PPG, for the first time, partly responsible for injuries to five plaintiffs alleged to be caused by PC products. PPG intends to appeal the adverse verdict in the event the settlement does not become effective. Although PPG has successfully defended asbestos claims brought against it in

Notes

the past, in view of the number of claims, and the questionable verdicts and awards that other companies have experienced in asbestos litigation, the result of any future litigation of such claims is inherently unpredictable.

It is PPG's policy to accrue expenses for environmental contingencies when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. Reserves for environmental contingencies are exclusive of claims against third parties and are generally not discounted. As of Dec. 31, 2002 and 2001, PPG had reserves for environmental contingencies totaling \$87 million and \$94 million, respectively. Pretax charges against income for environmental remediation costs in 2002, 2001 and 2000 totaled \$15 million, \$29 million and \$18 million, respectively, and are included in "Other charges" in the accompanying statement of income. Cash outlays related to such environmental remediation aggregated \$22 million, \$19 million and \$16 million in 2002, 2001 and 2000, respectively.

Management anticipates that the resolution of the Company's environmental contingencies will occur over an extended period of time. Over the past 10 years the pretax charges against income have ranged between \$10 million and \$49 million per year. We anticipate that charges against income in 2003 will be within that range. It is possible, however, that technological, regulatory and enforcement developments, the results of environmental studies and other factors could alter this expectation. In management's opinion, the Company operates in an environmentally sound manner and the outcome of the Company's environmental contingencies will not have a material effect on PPG's financial position or liquidity.

In addition to the amounts currently reserved, the Company may be subject to loss contingencies related to environmental matters estimated to be as much as \$200 million to \$400 million, which range is unchanged from the prior year end. Such unreserved losses are reasonably possible but are not currently considered to be probable of occurrence. The Company's environmental contingencies are expected to be resolved over an extended period of time.

Although the unreserved exposure to future loss relates to all sites, a significant portion of such exposure involves three operating plant sites in our chemicals segment. Initial remedial actions are occurring at these sites. Studies to determine the nature of the contamination are reaching completion and the need for additional remedial actions, if any, is presently being evaluated. The loss contingencies related to the remaining portion of such unreserved exposure include significant unresolved issues such as the nature and extent of contamination, if any, at these other sites and the methods that may have to be employed should remediation be required. The most significant of these sites is the Calcasieu River estuary, near our Lake Charles, La. chemicals plant. The U.S. Environmental Protection Agency (USEPA) has been investigating contamination levels in the

Calcasieu River estuary. During 2002, the USEPA issued draft Human Health and Ecological Risk Assessments indicating that elevated levels of risk exist in the estuary. It is expected that USEPA could issue final risk assessments in 2003 followed by a Remedial Investigation report. PPG would then have discussions with the USEPA and other parties to determine what, if any, role PPG would have in addressing estuary issues.

With respect to certain waste sites, the financial condition of any other potentially responsible parties also contributes to the uncertainty of estimating PPG's final costs. Although contributors of waste to sites involving other potentially responsible parties may face governmental agency assertions of joint and several liability, in general, final allocations of costs are made based on the relative contributions of wastes to such sites. PPG is generally not a major contributor to such sites.

The impact of evolving programs, such as natural resource damage claims, industrial site reuse initiatives and state voluntary remediation programs, also adds to the present uncertainties with regard to the ultimate resolution of this unreserved exposure to future loss. The Company's 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.

14. Shareholders' Equity

A class of 10 million shares of preferred stock, without par value, is authorized but unissued. Common stock has a par value of \$1.66²/₃ per share; 600 million shares are authorized.

The following table summarizes the shares outstanding for the three years ended Dec. 31, 2002:

	Common Stock	Treasury Stock	ESOP Shares	Shares Outstanding
Balance, Jan. 1, 2000	290,573,068	(116,472,619)	(112,183)	173,988,266
Purchases	—	(6,126,000)	(445,185)	(6,571,185)
Issuances/releases	—	248,100	556,892	804,992
Balance, Dec. 31, 2000	290,573,068	(122,350,519)	(476)	168,222,073
Purchases	—	(109,400)	(583,598)	(692,998)
Issuances/releases	—	600,065	359,116	959,181
Balance, Dec. 31, 2001	290,573,068	(121,859,854)	(224,958)	168,488,256
Issuances/releases	—	871,725	82,212	953,937
Balance, Dec. 31, 2002	290,573,068	(120,988,129)	(142,746)	169,442,193

ESOP shares represent the unreleased new shares held by the ESOP that are not considered outstanding under SOP 93-6 (see Notes 1 and 16). The number of ESOP shares changes as a result of the purchases of new shares and releases of shares to participant accounts by the ESOP.

PPG has a Shareholders' Rights Plan, under which each share of the Company's outstanding common stock has an

Notes

associated preferred share purchase right. The rights are exercisable only under certain circumstances and allow holders of such rights to purchase common stock of PPG or an acquiring company at a discounted price, which would generally be 50% of the respective stocks' current fair market value.

Per share cash dividends paid were \$1.70 in 2002, \$1.68 in 2001 and \$1.60 in 2000.

15. Accumulated Other Comprehensive Loss

(Millions)	Unrealized Currency Translation Adjustment	Minimum Pension Liability Adjustment	Unrealized Gain (Loss) on Marketable Securities	Unrealized Gain (Loss) on Derivatives	Accumulated Other Comprehensive Loss
Balance, Jan. 1, 2000	\$(162)	\$ (13)	\$(3)	\$—	\$ (178)
Net change	(120)	(16)	3	—	(133)
Balance, Dec. 31, 2000	(282)	(29)	—	—	(311)
Net change	(131)	(20)	10	(8)	(149)
Balance, Dec. 31, 2001	(413)	(49)	10	(8)	(460)
Net change	73	(726)	(5)	17	(641)
Balance, Dec. 31, 2002	\$(340)	\$(775)	\$ 5	\$ 9	\$(1,101)

Unrealized currency translation adjustments exclude income tax expense (benefit) given that the earnings of non-U.S. subsidiaries are deemed to be reinvested for an indefinite period of time. The income tax benefit associated with the minimum pension liability adjustment was \$416 million in 2002 and \$9 million in 2001. The unrealized gain (loss) on marketable securities and derivatives is presented net of tax.

The 2000 net change in unrealized gain (loss) on marketable securities includes the reclassification to "Other charges" in the accompanying statement of income for unrealized losses of \$14 million, \$9 million net of tax, due to an other than temporary decline in the market value of an investment in marketable equity securities.

16. Employee Stock Ownership Plan

Our employee stock ownership plan (ESOP) covers substantially all U. S. employees. The Company makes matching contributions to the ESOP based upon participants' savings, subject to certain limitations, the matching percentage being based upon our return on average capital for the previous year.

Compensation (benefit) expense related to the ESOP for 2002, 2001 and 2000 totaled \$(2) million, \$6 million and \$11 million, respectively. Cash contributions to the ESOP for 2002, 2001 and 2000 totaled \$2 million, \$17 million and \$22 million, respectively. The decline in compensation expense and cash contributions to the ESOP in 2002 was due principally to the decrease in the Company's matching percentage. Interest expense totaled \$4 million, \$7 million and \$9 million for 2002, 2001 and 2000, respectively. The tax deductible

dividends on PPG shares held by the ESOP were \$42 million for 2002 and \$44 million for 2001 and 2000.

Shares held by the ESOP as of Dec. 31, 2002 and 2001, are as follows:

	2002		2001	
	Old Shares	New Shares	Old Shares	New Shares
Allocated shares	10,649,783	3,831,700	9,970,943	3,749,488
Unreleased shares	2,750,551	142,746	3,429,391	224,958
Total	13,400,334	3,974,446	13,400,334	3,974,446

The fair value of unreleased new ESOP shares was \$7 million and \$12 million at Dec. 31, 2002 and 2001, respectively. The average cost of the unreleased old ESOP shares was \$21 per share.

17. Other Earnings

(Millions)	2002	2001	2000
Interest income	\$ 9	\$15	\$ 12
Royalty income	26	26	27
Share of net (loss) earnings of equity affiliates (See Note 5)	(1)	15	39
Other	61	42	60
Total	\$95	\$98	\$138

18. Stock-Based Compensation

PPG has a number of stock-based compensation plans the most significant of which are the PPG Stock Option Plan and the Challenge 2000 Stock Option Plan, for which no compensation expense has been recognized. In addition, a portion of the amounts paid under the Company's total shareholder return plans and its incentive compensation and management award plans may be paid in PPG common stock. Total compensation cost related to these other plans was \$45 million, \$45 million and \$42 million in 2002, 2001 and 2000, respectively.

Under PPG's Stock Option Plan, certain employees of the Company have been granted options to purchase shares of common stock at prices equal to the fair market value of the shares on the date the options were granted. The options are exercisable beginning from six to 12 months after being granted and have a maximum term of 10 years. Shares available for future grants under this plan were 13,983,500 and 3,751,911 at Dec. 31, 2002 and 2001, respectively.

On July 1, 1998, the Company granted to substantially all active employees of the Company and its majority owned subsidiaries the option to purchase 100 shares of common stock at its then fair market value of \$70 per share under the Challenge 2000 Stock Option Plan. The options are exercisable beginning July 1, 2003 and expire on June 30, 2008.

Notes

In accordance with APB No. 25, no compensation cost for PPG's Stock Option and Challenge 2000 Stock Option plans has been recognized in the accompanying financial statements. Had compensation cost for these PPG stock option plans been determined based upon the estimated fair value at the grant date consistent with the methodology prescribed in SFAS No. 123, net (loss) income, (loss) earnings per common share and (loss) earnings per common share—assuming dilution for 2002, 2001 and 2000 would have been as follows:

(Millions, except per share amounts)	2002	2001	2000
Net (loss) income			
Reported net (loss) income	\$ (69)	\$ 387	\$ 620
Impact of SFAS No. 123	(24)	(24)	(23)
Pro forma net (loss) income	\$ (93)	\$ 363	\$ 597
(Loss) earnings per common share			
Reported (loss) earnings	\$(0.41)	\$2.30	\$3.60
Impact of SFAS No. 123	(0.14)	(0.14)	(0.13)
Pro forma (loss) earnings	\$(0.55)	\$2.16	\$3.47
(Loss) earnings per common share—assuming dilution			
Reported (loss) earnings	\$(0.41)	\$2.29	\$3.57
Impact of SFAS No. 123	(0.14)	(0.14)	(0.13)
Pro forma (loss) earnings	\$(0.55)	\$2.15	\$3.44

The weighted average fair value of options granted was \$12.40 per share in 2002, \$11.93 per share in 2001 and \$13.08 per share in 2000. The fair value of stock options is estimated at the grant date using the Black-Scholes option pricing model with the following weighted average assumptions:

	2002	2001	2000
Risk-free interest rate	4.1%	5.2%	6.1%
Expected life of option in years	4.3	4.3	4.5
Expected dividend yield	2.8%	2.7%	2.6%
Expected volatility	32.4%	26.3%	24.5%

The following table summarizes stock option activity under all plans for the three years ended Dec. 31, 2002:

Stock option activity	Number of shares subject to options	Weighted average exercise price per share
Outstanding, Jan. 1, 2000	11,793,121	\$59.58
Granted	2,048,445	52.99
Exercised	(301,432)	43.00
Terminated	(353,405)	64.30
Outstanding, Dec. 31, 2000	13,186,729	58.81
Granted	2,697,920	51.52
Exercised	(871,389)	45.99
Terminated	(502,581)	62.66
Outstanding, Dec. 31, 2001	14,510,679	58.09
Granted	2,613,972	50.91
Exercised	(1,225,031)	49.14
Terminated	(1,093,835)	62.29
Outstanding, Dec. 31, 2002	14,805,785	\$57.25

The following table summarizes information about stock options outstanding and exercisable at Dec. 31, 2002:

Range of exercise price per share	Options outstanding		Options exercisable	
	Number of shares	Weighted average remaining contractual life (years)	Number of shares	Weighted average exercise price per share
\$33.00-\$39.75	376,506	1.36	376,506	\$37.04
\$40.68-\$60.00	8,981,878	6.76	6,947,069	\$53.25
\$60.06-\$76.31	5,447,401	4.39	3,085,408	\$64.37
	14,805,785	5.75	10,408,983	\$55.96

At Dec. 31, 2001, options were exercisable for 9.8 million shares at a weighted average exercise price of \$56.86 per common share. The corresponding amounts at Dec. 31, 2000, were 8.8 million and \$56.80 per common share, respectively.

Notes

19. Advertising Costs

Advertising costs are expensed as incurred and totaled \$74 million, \$62 million and \$75 million in 2002, 2001 and 2000, respectively.

20. Research and Development

(Millions)	2002	2001	2000
Research and development — total	\$289	\$283	\$301
Less depreciation	16	17	19
<i>Research and development — net</i>	<i>\$273</i>	<i>\$266</i>	<i>\$282</i>

21. Quarterly Financial Information
(unaudited)

	Net Sales (Millions)	Gross Profit (Millions)	Net Income (Loss) (Millions)	Earnings (Loss) Per Common Share	Earnings (Loss) Per Common Share— Assuming Dilution
<i>2002 quarter ended</i>					
March 31 ⁽¹⁾	\$1,875	\$ 686	\$ 34	\$.20	\$.20
June 30 ⁽²⁾	2,134	809	(345)	(2.04)	(2.03)
September 30	2,068	777	148	.87	.87
December 31	1,990	729	94	.56	.55
Total	\$8,067	\$3,001	\$ (69)	\$ (.41)	\$ (.41)
<i>2001 quarter ended</i>					
March 31 ⁽³⁾	\$2,099	\$ 775	\$ 56	\$.33	\$.33
June 30	2,164	822	155	.92	.92
September 30	1,999	738	93	.56	.55
December 31	1,907	697	83	.49	.49
Total⁽⁴⁾	\$8,169	\$3,032	\$ 387	\$ 2.30	\$ 2.29

- (1) First quarter 2002 earnings were reduced by a cumulative effect of accounting change of \$9 million, net of tax, or \$0.05 a share. Income before cumulative effect of accounting change and related earnings per common share — assuming dilution were \$43 million and \$0.25 a share, respectively. First quarter 2002 earnings were also reduced by a pretax charge of \$81 million for restructuring and other related activities, including severance and other costs of \$66 million and asset dispositions of \$15 million.
- (2) Second quarter 2002 earnings were reduced by a pretax charge of \$772 million for the asbestos settlement and increased due to the reversal of \$4 million of a coatings restructuring reserve originally recorded in 2001.
- (3) First quarter 2001 earnings were reduced by pretax charges of \$101 million for restructuring and other related activities, including severance and other costs of \$67 million and asset dispositions of \$34 million.
- (4) Amortization expense for goodwill and trademarks with indefinite lives of \$8 million after-tax, or \$0.05 a share, is included in net income and earnings per share for each quarter in 2001.

22. Business Segment Information*Segment Organization and Products*

PPG is a multinational manufacturer with three reportable segments: coatings, glass and chemicals. The Company's segments are organized based on differences in products. The glass and fiber glass operations have been aggregated into a single reportable segment. The coatings segment supplies a variety of protective and decorative coatings and finishes along with adhesives, sealants and metal pretreatment products for automotive original equipment and aftermarket refinish, aerospace, industrial, packaging and architectural applications. In addition to specific products, the coatings segment supplies technical expertise, engineering and purchasing services to the automotive original, industrial and aerospace portions of the business. The glass segment supplies flat glass, fabricated glass and continuous-strand fiber glass for residential and commercial construction, automotive original and replacement markets and industrial applications. The chemicals segment supplies chlor-alkali and specialty chemicals products. The primary chlor-alkali products are chlorine, caustic soda, vinyl chloride monomer, chlorinated solvents, chlorinated benzenes and calcium hypochlorite. The primary specialty chemicals products are *Transitions*® lenses, optical monomers, silicas and fine chemicals. *Transitions*® lenses are manufactured and distributed by PPG's majority-owned joint venture with Essilor International. Production facilities and markets for the coatings, glass and chemicals segments are predominantly in North America and Europe. Our businesses are also pursuing opportunities to develop markets in Asia and South America. Each of the businesses in which PPG is engaged is highly competitive. However, the diversification of product lines and worldwide markets served tends to minimize the impact on total sales and earnings of changes in demand for a particular product line or in a particular geographic area.

The accounting policies of the segments are the same as those described in the summary of significant accounting policies. The Company allocates resources to segments and evaluates the performance of segments based upon reported segment income before interest expense — net, income taxes and minority interest. Substantially all corporate administrative expenses are allocated to the segments. Net periodic pension income and expense is allocated to the segments. Prepaid pension assets for U.S. defined benefit plans in 2001 and 2000 are not allocated to the segments and are included in corporate assets. Intersegment sales and transfers are recorded at selling prices that approximate market prices.

Notes

(Millions) Segments	Coatings ⁽¹⁾	Glass ⁽²⁾	Chemicals ⁽³⁾	Corporate ⁽⁴⁾	Consolidated Totals
2002					
Net sales to external customers	\$4,482	\$2,071	\$1,514	\$ —	\$8,067
Intersegment net sales	1	24	6	(31)	—
<i>Total net sales</i>	\$4,483	\$2,095	\$1,520	\$ (31)	\$8,067
Operating income (loss)	\$ 605	\$ 143	\$ 124	\$ (26)	\$ 846
Asbestos settlement, net (See Note 13)					(755)
Interest — net					(119)
<i>Loss before income taxes, minority interest and cumulative effect of accounting change</i>					\$ (28)
Depreciation and amortization (See Note 1)	\$ 156	\$ 124	\$ 97	\$ 21	\$ 398
Share of net (loss) earnings of equity affiliates	\$ (3)	\$ —	\$ (1)	\$ 3	\$ (1)
Segment assets ⁽⁵⁾	\$4,140	\$1,601	\$1,098	\$1,024	\$7,863
Investments in equity affiliates	\$ 23	\$ 91	\$ 28	\$ 15	\$ 157
Expenditures for long-lived assets	\$ 95	\$ 92	\$ 42	\$ 21	\$ 250
2001					
Net sales to external customers	\$4,410	\$2,236	\$1,523	\$ —	\$8,169
Intersegment net sales	2	1	8	(11)	—
<i>Total net sales</i>	\$4,412	\$2,237	\$1,531	\$ (11)	\$8,169
Operating income (loss)	\$ 495	\$ 255	\$ 91	\$ (21)	\$ 820
Interest — net					(154)
<i>Income before income taxes, minority interest and cumulative effect of accounting change</i>					\$ 666
Depreciation and amortization (See Note 1)	\$ 193	\$ 137	\$ 97	\$ 20	\$ 447
Share of net earnings of equity affiliates	\$ —	\$ 9	\$ 1	\$ 5	\$ 15
Segment assets ⁽⁵⁾	\$4,160	\$1,596	\$1,105	\$1,591	\$8,452
Investments in equity affiliates	\$ 24	\$ 94	\$ 26	\$ 13	\$ 157
Expenditures for long-lived assets	\$ 109	\$ 85	\$ 58	\$ 31	\$ 283
2000					
Net sales to external customers	\$4,658	\$2,350	\$1,621	\$ —	\$8,629
Intersegment net sales	3	1	11	(15)	—
<i>Total net sales</i>	\$4,661	\$2,351	\$1,632	\$ (15)	\$8,629
Operating income (loss)	\$ 685	\$ 377	\$ 174	\$ (54)	\$1,182
Interest — net					(165)
<i>Income before income taxes, minority interest and cumulative effect of accounting change</i>					\$1,017
Depreciation and amortization (See Note 1)	\$ 193	\$ 140	\$ 95	\$ 19	\$ 447
Share of net earnings of equity affiliates	\$ 5	\$ 25	\$ 3	\$ 6	\$ 39
Segment assets ⁽⁵⁾	\$4,592	\$1,791	\$1,221	\$1,521	\$9,125
Investments in equity affiliates	\$ 24	\$ 106	\$ 29	\$ 13	\$ 172
Expenditures for long-lived assets	\$ 240	\$ 140	\$ 79	\$ 37	\$ 496

(continued on next page)

(continued)

(Millions)

Geographic Information

	2002	2001	2000
Net sales⁽⁶⁾			
United States	\$5,298	\$5,469	\$5,754
Europe	1,603	1,507	1,599
Canada	528	545	595
Other	638	648	681
Total	\$8,067	\$8,169	\$8,629
Operating income			
United States ⁽⁷⁾	\$ 660	\$ 664	\$ 934
Europe ⁽⁸⁾	120	103	185
Canada ⁽⁹⁾	37	38	74
Other ⁽¹⁰⁾	55	36	43
Total⁽¹¹⁾	\$ 872	\$ 841	\$1,236
Interest — net	(119)	(154)	(165)
Asbestos settlement, net (See Note 13)	(755)	—	—
Other unallocated corporate expense — net	(26)	(21)	(54)
<i>(Loss) income before income taxes, minority interest and cumulative effect of accounting change</i>	\$ (28)	\$ 666	\$1,017
Long-lived assets⁽¹²⁾			
United States	\$2,799	\$3,764	\$3,862
Europe	1,034	964	1,031
Canada	193	191	211
Other	411	473	553
Total	\$4,437	\$5,392	\$5,657
Identifiable assets			
United States ⁽¹³⁾	\$4,943	\$5,606	\$5,977
Europe	1,798	1,646	1,752
Canada	321	314	366
Other	801	886	1,030
Total	\$7,863	\$8,452	\$9,125

- (1) Coatings segment income in 2002 and 2001 includes pretax charges of \$73 million and \$83 million, respectively, for restructuring and other related activities.
- (2) Glass segment income in 2002 and 2001 includes pretax charges of \$1 million and \$10 million, respectively, for restructuring and other related activities. Glass segment income in 2000 includes pretax restructuring and one-time integration costs of \$6 million related to PPG Auto Glass.
- (3) Chemicals segment income in 2002 and 2001 includes pretax charges of \$1 million and \$7 million, respectively, for restructuring and other related activities.
- (4) Corporate intersegment net sales represent intersegment net sales eliminations. Corporate income (loss) represents unallocated corporate income and expenses. The corporate loss in 2002 and 2001 includes pretax charges of \$2 million and \$1 million, respectively, for restructuring and other related activities. The corporate loss in 2000 includes a pretax charge of \$39 million representing the write-off of a 50% owned equity investment in Pittsburgh Corning Corporation, which has filed for reorganization under the federal bankruptcy code. Also included in 2000 is a pretax charge of \$14 million due to an other than temporary decline in the market value of an investment in marketable equity securities, previously recorded net of tax as an unrealized loss in other comprehensive loss.
- (5) Segment assets are the total assets used in the operation of each segment. Corporate assets are principally cash and cash equivalents, deferred tax assets and prepaid pensions in 2001 and 2000. See Note 12.
- (6) Net sales to external customers are attributed to individual countries based upon the location of the operating unit shipping the product.
- (7) Operating income in 2002 and 2001 includes pretax charges of \$28 million and \$49 million, respectively, for restructuring and other related activities. Operating income in 2000 includes pretax charges of \$39 million, \$14 million and \$6 million, respectively, related to the write-off of a 50% owned equity investment in Pittsburgh Corning Corporation which has filed for reorganization under the federal bankruptcy code, an other than temporary decline in the market value of an investment in marketable equity securities, and restructuring and one-time integration costs related to PPG Auto Glass.
- (8) Operating income in 2002 and 2001 includes pretax charges of \$44 million and \$43 million, respectively, for restructuring and other related activities.
- (9) Operating income in 2002 and 2001 includes pretax charges of \$3 million and \$4 million, respectively, for restructuring and other related activities.
- (10) Operating income in 2002 and 2001 includes pretax charges of \$2 million and \$5 million, respectively, for restructuring and other related activities.
- (11) Operating income in 2002 and 2001 includes pretax charges of \$77 million and \$101 million, respectively, for restructuring and other related activities.
- (12) Long-lived assets include property, goodwill and identifiable intangible assets, net of accumulated depreciation and amortization, and other assets except for non-current trade and notes receivable and deferred tax assets.
- (13) Includes corporate assets which are principally cash and cash equivalents, deferred tax assets and prepaid pensions in 2001 and 2000.

Part II—continued

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Part III

Item 10. Directors and Executive Officers of the Registrant

The information required by Item 10 regarding Directors is contained under the caption "Election of Directors" in the Registrant's definitive Proxy Statement for its 2003 Annual Meeting of Shareholders (the Proxy Statement) which will be filed with the Securities and Exchange Commission, pursuant to Regulation 14A, not later than 120 days after the end of the fiscal year, which information under such caption is incorporated herein by reference.

The executive officers of the Company are elected annually in April by the Board of Directors. The business experience during the past five years of each Executive Officer as required by Item 10 is set forth below.

<u>Name</u>	<u>Age</u>	<u>Title</u>
Raymond W. LeBoeuf	56	Chairman of the Board and Chief Executive Officer since November 1997
Charles E. Bunch (a)	53	President and Chief Operating Officer since July 2002
James C. Diggs	54	Senior Vice President and General Counsel since July 1997
William H. Hernandez	54	Senior Vice President, Finance since January 1995

(a) Mr. Bunch was Executive Vice President and Senior Vice President, Strategic Planning and Corporate Services prior to his present position.

The information required by Item 405 of Regulation S-K is included under the caption "Section 16(a) Reporting" in the Proxy Statement which information under such caption is incorporated herein by reference.

Item 11. Executive Compensation

The information required by Item 11 is contained under the captions "Compensation of Executive Officers — Summary of Named Executives' Compensation" and "Election of Directors — Compensation of Directors" in the Proxy Statement which information under such captions is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by Item 12 is contained under the caption "Voting Securities" in the Proxy Statement which information under such caption is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions

The information required by Item 13 is contained under the caption "Election of Directors — Other Transactions" in the Proxy Statement which information under such caption is incorporated herein by reference.

Part IV

Item 14. Controls and Procedures

- (a) *Evaluation of disclosure controls and procedures.* Based on their evaluation as of a date within 90 days of the filing date of this Form 10-K, the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-14(c) and 15d-14(c) under the Securities Exchange Act of 1934 (the "Exchange Act")) are effective to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms.
- (b) *Changes in internal control.* There were no significant changes in the Company's internal controls or in other factors that could significantly affect these controls subsequent to the date of their evaluation described above. There were no significant deficiencies or material weaknesses, and therefore there were no corrective actions taken.

Item 15. Exhibits, Financial Statement Schedules and Reports on Form 8-K

- (a) Financial Statements and Independent Auditors' Report (see Part II, Item 8 of this Form 10-K).

The following information is filed as part of this Form 10-K.

	Page
Independent Auditors' Report	26
Statement of Income for the Years Ended December 31, 2002, 2001 and 2000	27
Balance Sheet as of December 31, 2002 and 2001	28
Statement of Shareholders' Equity for the Years Ended December 31, 2002, 2001 and 2000	29
Statement of Comprehensive Income for the Years Ended December 31, 2002, 2001 and 2000	29
Statement of Cash Flows for the Years Ended December 31, 2002, 2001 and 2000	30
Notes to the Financial Statements	31

Financial Statement Schedules for years ended December 31, 2002, 2001 and 2000:

The following should be read in conjunction with the previously referenced financial statements.

Schedule II—Valuation and Qualifying Accounts

For the Years Ended December 31, 2002, 2001 and 2000

(Millions)	Balance at Beginning of Year	Charged to Costs and Expenses	Deductions(1)	Balance at End of Year
Allowance for doubtful accounts:				
2002	\$ 44	\$ 24	\$(20)	\$ 48
2001	\$ 37	\$ 30	\$(23)	\$ 44
2000	\$ 25	\$ 27	\$(15)	\$ 37

(1) Notes and accounts receivable written off as uncollectible, net of recoveries, and changes attributable to foreign currency translation.

All other schedules are omitted because they are not applicable.

- (b) Reports on Form 8-K. The Company filed a Form 8-K issuing a press release dated November 20, 2002. The press release announced that the earnings of the Company for the fourth quarter are forecast to be between 55 and 60 cents a share.
- (c) Exhibits. The following exhibits are filed as a part of, or incorporated herein by reference into, this Form 10-K.
- 3 The Restated Articles of Incorporation, as amended, were filed as Exhibit 3 to the Registrant's Form 10-Q for the quarter ended March 31, 1995.
 - 3.1 Statement with Respect to Shares, amending the Restated Articles of Incorporation effective April 21, 1998 was filed as Exhibit 3.1 to the Registrant's Form 10-K for the year ended December 31, 1998.
 - 3.2 The Bylaws, as amended, were filed as Exhibit 3.2 to the Registrant's Form 10-Q for the quarter ended March 31, 2002.
 - 4 The Shareholders' Rights Plan was filed as Exhibit 4 on the Registrant's Form 8-K, dated February 19, 1998.
 - 4.1 Indenture, dated as of August 1, 1982, was filed as Exhibit 4.1 to PPG's Registration Statement on Form S-3 (No. 333-44397) dated January 16, 1998 (the "1998 Form S-3").
 - 4.2 First Supplemental Indenture, dated as of April 1, 1986, was filed as Exhibit 4.2 to the 1998 Form S-3.
 - 4.3 Second Supplemental Indenture, dated as of October 1, 1989, was filed as Exhibit 4.3 to the 1998 Form S-3.

- 4.4 Third Supplemental Indenture, dated as of November 1, 1995, was filed as Exhibit 4.4 to the 1998 Form S-3.
- *10 The Supplemental Executive Retirement Plan II, as amended, and the Change in Control Employment Agreement were filed as Exhibits 10.2 and 10.5, respectively, to the Registrant's Form 10-Q for the quarter ended September 30, 1995. PPG Industries, Inc. Deferred Compensation Plan for Directors was filed as Exhibit 10.3 to the Registrant's Form 10-K for the year ended December 31, 1997. PPG Industries, Inc. Incentive Compensation and Deferred Income Plan for Key Employees, as amended, was filed as Exhibit 10.1 to the Registrant's Form 10-Q for the quarter ended March 31, 2000. PPG Industries, Inc. Directors' Common Stock Plan, as amended April 19, 2000, was filed as Exhibit 10.1 to the Registrant's Form 10-K for the year ended December 31, 2000. PPG Industries, Inc. Executive Officers Annual Incentive Compensation Plan, dated as of April 19, 2001, was filed as Exhibit 10.3 to the Registrant's Form 10-K for the year ended December 31, 2000. PPG Industries, Inc. Nonqualified Retirement Plan dated as of January 1, 1989, as amended February 21, 2002, was filed as Exhibit 10.1 to the Registrant's Form 10-K for the year ended December 31, 2001. PPG Industries, Inc. Deferred Compensation Plan, as amended effective February 21, 2002, was filed as Exhibit 10.2 to the Registrant's Form 10-K for the year ended December 31, 2001. PPG Industries, Inc. Stock Plan, dated as of April 17, 1997, as amended April 18, 2002, was filed as Exhibit 10.3 to the Registrant's Form 10-K for the year ended December 31, 2001. PPG Industries, Inc. Total Shareholder Return Plan for Key Employees, as amended effective April 18, 2002, was filed as Exhibit 10.4 to the Registrant's Form 10-K for the year ended December 31, 2001. PPG Industries, Inc. Executive Officers' Total Shareholder Return Plan, as amended effective April 18, 2002, was filed as Exhibit 10.5 to the Registrant's Form 10-K for the year ended December 31, 2001.
- *10.1 PPG Industries, Inc. Management Award and Deferred Income Plan was filed as Exhibit 10.1 to the Registrant's Form 10-K for the year ended December 31, 2002.
- 12 Computation of Ratio of Earnings to Fixed Charges for the Five Years Ended December 31, 2002.
- 21 Subsidiaries of the Registrant.
- 23 Independent Auditors' Consent.
- 24 Powers of Attorney.
- 99.1 Market Information, Dividends and Holders of Common Stock.
- 99.2 Selected Financial Data for the Five Years Ended December 31, 2002.
- * Items referred to in Exhibit 10 and 10.1 and incorporated by reference are either management contracts, compensatory plans or arrangements required to be filed as an exhibit hereto pursuant to Item 601 of Regulation S-K.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized, on February 20, 2003.

PPG INDUSTRIES, INC.
(Registrant)

By William H. Hernandez
W. H. Hernandez, Senior Vice President, Finance

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the Registrant and in the capacities indicated, on February 20, 2003.

<u>Signature</u>	<u>Capacity</u>
<u>Ronald W. Berges</u> R. W. LeBoeuf	Director, Chairman of the Board and Chief Executive Officer
<u>William H. Hernandez</u> W. H. Hernandez	Senior Vice President, Finance (Principal Financial and Accounting Officer)
J. G. Berges	Director
C. E. Bunch	Director
E. B. Davis, Jr.	Director
M. J. Hooper	Director
A. J. Krowe	Director
S. C. Mason	Director
R. Mehrabian	Director
T. J. Usher	Director
D. R. Whitwam	Director

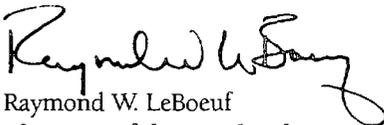
By William H. Hernandez
W. H. Hernandez, Attorney-in-Fact

Certifications

PRINCIPAL EXECUTIVE OFFICER CERTIFICATION

I, Raymond W. LeBoeuf, certify that:

1. I have reviewed this annual report on Form 10-K of PPG Industries, Inc. ("PPG");
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a 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 annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of PPG as of, and for, the periods presented in this annual report;
4. PPG's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for PPG and we have:
 - (a) designed such disclosure controls and procedures to ensure that material information relating to PPG, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - (b) evaluated the effectiveness of PPG's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - (c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. PPG's other certifying officer and I have disclosed, based on our most recent evaluation, to PPG's auditors and the audit committee of PPG's Board of Directors:
 - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect PPG's ability to record, process, summarize and report financial data and have identified for PPG's auditors any material weaknesses in internal controls; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in PPG's internal controls; and
6. PPG's other certifying officer and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.

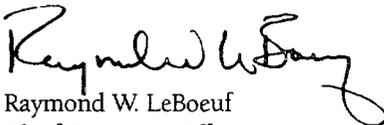


Raymond W. LeBoeuf
Chairman of the Board and
Chief Executive Officer
February 20, 2003

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of PPG Industries, Inc. on Form 10-K for the period ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Raymond W. LeBoeuf, Chief Executive Officer of PPG Industries, Inc., certify to the best of my knowledge, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of PPG Industries, Inc.



Raymond W. LeBoeuf
Chief Executive Officer
February 20, 2003

Certifications

PRINCIPAL FINANCIAL OFFICER CERTIFICATION

I, William H. Hernandez, certify that:

1. I have reviewed this annual report on Form 10-K of PPG Industries, Inc. ("PPG");
2. Based on my knowledge, this annual report does not contain any untrue statement of a material fact or omit to state a 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 annual report;
3. Based on my knowledge, the financial statements, and other financial information included in this annual report, fairly present in all material respects the financial condition, results of operations and cash flows of PPG as of, and for, the periods presented in this annual report;
4. PPG's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-14 and 15d-14) for PPG and we have:
 - (a) designed such disclosure controls and procedures to ensure that material information relating to PPG, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;
 - (b) evaluated the effectiveness of PPG's disclosure controls and procedures as of a date within 90 days prior to the filing date of this annual report (the "Evaluation Date"); and
 - (c) presented in this annual report our conclusions about the effectiveness of the disclosure controls and procedures based on our evaluation as of the Evaluation Date;
5. PPG's other certifying officer and I have disclosed, based on our most recent evaluation, to PPG's auditors and the audit committee of PPG's Board of Directors:
 - (a) all significant deficiencies in the design or operation of internal controls which could adversely affect PPG's ability to record, process, summarize and report financial data and have identified for PPG's auditors any material weaknesses in internal controls; and
 - (b) any fraud, whether or not material, that involves management or other employees who have a significant role in PPG's internal controls; and
6. PPG's other certifying officer and I have indicated in this annual report whether or not there were significant changes in internal controls or in other factors that could significantly affect internal controls subsequent to the date of our most recent evaluation, including any corrective actions with regard to significant deficiencies and material weaknesses.



William H. Hernandez
Senior Vice President, Finance
February 20, 2003

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of PPG Industries, Inc. on Form 10-K for the period ended December 31, 2002 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, William H. Hernandez, Chief Financial Officer of PPG Industries, Inc., certify to the best of my knowledge, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of PPG Industries, Inc.



William H. Hernandez
Chief Financial Officer
February 20, 2003

Officer Changes

The following are officer changes since March 2002:

Charles E. Bunch was elected president and chief operating officer as well as a member of the board of directors.

Frank A. Archinaco, executive vice president, glass and chemicals, retired after 37 years with PPG.

Michael A. Ludlow was appointed senior vice president of original equipment manufacturer coatings. He had been vice president of industrial coatings. J. Rich Alexander, global general manager of general industrial coatings, succeeded Ludlow.

Kevin F. Sullivan was named vice president of chemicals. He had been vice president of fiber glass. Victoria Holt joined PPG as vice president of fiber glass, effective Feb. 1, 2003.

Richard Zahren retired as vice president of automotive coatings, effective March 1, 2003, after 33 years of service.

He was succeeded by Dennis Kovalsky, effective Jan. 1, 2003. Kovalsky had been vice president of aerospace products.

David P. Morris, global general manager of sales and marketing for aerospace products, succeeded Kovalsky effective Jan. 1, 2003.

Ernest A. Hahn retired as vice president of automotive glass, effective March 1, 2003, after serving PPG for more than 36 years. Barry McGee, vice president of flat glass, was named to succeed Hahn, effective the same date. Mark J. Orcutt, president of PPG Auto Glass, a joint venture with Apogee Enterprises, Inc., was named to succeed McGee, effective the same date.

William A. Wulfsohn joined PPG as vice president of coatings, Europe, and managing director, PPG Europe, effective Feb. 1, 2003.

Kathleen A. McGuire was named vice president of purchasing and distribution. She had been vice president of silicas. She succeeded Margaret H. McGrath, who left the company.

David W. Smith, vice president, information technology, retired after 10 years of service. Werner Baer joined PPG as vice president, information technology.

Douglas C. Hepper, vice president of market initiatives, coatings, left the company. Benjamin R. Fisher Jr., vice president of corporate marketing and communications, died Sept. 8, 2002.

Eleven-Year Digest

	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992
Statement of Income											
Net sales	8,067	8,169	8,629	7,995	7,751	7,631	7,466	7,311	6,570	5,980	6,042
Gross profit (%)	37.2	37.1	38.2	38.0	39.1	39.1	38.5	38.9	37.5	35.5	35.1
(Loss) income before income taxes ⁽¹⁾	(67)	634	989	945	1,267	1,149	1,215	1,248	840	531	538
Income tax (benefit) expense	(7)	247	369	377	466	435	471	480	325	236	218
(Loss) income before accounting changes ⁽¹⁾	(60)	387	620	568	801	714	744	768	515	295	319
Cumulative effect of accounting changes ⁽²⁾	(9)	—	—	—	—	—	—	—	—	(273)	—
Net (loss) income ⁽¹⁾	(69)	387	620	568	801	714	744	768	515	22	319
Return on average capital (%) ⁽¹⁾⁽³⁾⁽⁴⁾	.2/3	8.4	12.1	12.7	19.6	19.1	20.3	21.6	15.3	2.2/8.9	9.7
Return on average equity (%) ^{(1)(3)(2.5)/(2.2)}	12.6	19.7	19.3	29.4	28.8	29.5	28.8	20.1	.9/10.7	11.8	
(Loss) earnings per common share before accounting changes ⁽¹⁾	(0.36)	2.30	3.60	3.27	4.52	3.97	3.96	3.80	2.43	1.39	1.51
Cumulative effect of accounting changes on (loss) earnings per common share	(0.05)	—	—	—	—	—	—	—	—	(1.29)	—
(Loss) earnings per common share ⁽¹⁾	(0.41)	2.30	3.60	3.27	4.52	3.97	3.96	3.80	2.43	.10	1.51
Average number of common shares	169.1	168.3	172.3	173.8	177.0	179.8	187.8	202.0	211.9	212.6	212.2
(Loss) earnings per common share — assuming dilution ⁽¹⁾	(0.41)	2.29	3.57	3.23	4.48	3.94	3.93	3.78	2.42	.10	1.50
Dividends	287	283	276	264	252	239	237	239	238	221	200
Per share	1.70	1.68	1.60	1.52	1.42	1.33	1.26	1.18	1.12	1.04	.94
Balance Sheet											
Current assets	2,945	2,703	3,093	3,062	2,660	2,584	2,296	2,275	2,168	2,026	1,951
Current liabilities	1,920	1,955	2,543	2,384	1,912	1,662	1,769	1,629	1,425	1,281	1,253
Working capital	1,025	748	550	678	748	922	527	646	743	745	698
Property (net)	2,632	2,752	2,941	2,933	2,905	2,855	2,913	2,835	2,742	2,787	2,972
Total assets	7,863	8,452	9,125	8,914	7,387	6,868	6,441	6,194	5,894	5,652	5,662
Long-term debt	1,699	1,699	1,810	1,836	1,081	1,257	834	736	773	774	905
Shareholders' equity	2,150	3,080	3,097	3,106	2,880	2,509	2,483	2,569	2,557	2,473	2,699
Per share	12.69	18.28	18.41	17.86	16.46	14.11	13.57	13.23	12.35	11.57	12.71
Other Data											
Capital spending ⁽⁵⁾	260	301	676	1,833	877	829	489	454	356	293	283
Depreciation expense	366	375	374	366	354	348	340	332	318	331	352
Quoted market price											
High	62.84	59.75	65.06	70.75	76.63	67.50	62.25	47.88	42.13	38.13	34.13
Low	41.41	38.99	36.00	47.94	49.13	48.63	42.88	34.88	33.75	29.63	25.00
Year-end	50.15	51.72	46.31	62.56	58.19	57.13	56.13	45.75	37.13	37.88	32.88
Price/earnings ratio⁽⁶⁾											
High	25	26	18	22	17	17	16	13	17	27	23
Low	17	17	10	15	11	12	11	9	14	21	17
Average number of employees	34,100	34,900	36,000	33,800	32,500	31,900	31,300	31,200	30,800	31,400	32,300

All amounts are in millions of dollars except per share data and number of employees.

Data was adjusted, as appropriate, to reflect the two-for-one stock split payable on June 10, 1994.

(1) Includes in 2002 an after-tax charge of \$484 million, or \$2.85 a share, representing the estimated cost of the asbestos settlement.

(2) The 2002 change in the method of accounting relates to the adoption of SFAS No. 142, "Goodwill and Other Intangible Assets." Net income and earnings per share prior to the adoption of SFAS No. 142 on Jan. 1, 2002, included amortization of goodwill and trademarks with indefinite lives which, net of tax, was (in millions) \$32, \$32, \$29 and \$14 for 2001, 2000, 1999 and 1998, respectively. Excluding these amounts, net income would have been \$419 million, \$652 million, \$597 million and \$815 million and earnings per share would have been \$2.49, \$3.77, \$3.40 and \$4.55 for 2001, 2000, 1999 and 1998, respectively. Amounts for such amortization in periods prior to 1998 were not material. The 1993 changes in methods of accounting relate to the adoption of SFAS No. 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions;" SFAS No. 109, "Accounting for Income Taxes," and SFAS No. 112, "Employers' Accounting for Postemployment Benefits." The effect of the 1993 changes on net income in the years of change, exclusive of the cumulative effect to Jan. 1 of the year of change and the pro forma effect on individual prior years' net income, was not material.

(3) Return on average capital and return on average equity for 2002 and 1993 were calculated and presented inclusive and exclusive of the cumulative effect of the accounting changes.

(4) Return on average capital is calculated using pre-interest, after-tax earnings and average debt and equity during the year.

(5) Includes the cost of businesses acquired.

(6) Price/earnings ratios were calculated based on high and low market prices during the year and the respective year's earnings per common share. The 2002 and 1993 ratios were calculated and presented exclusive of the cumulative effect of the accounting changes. The 2002 ratio also excludes an after-tax charge of \$484 million representing the estimated cost of the asbestos settlement.

PPG Shareholder Information

World Headquarters

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Phone (412) 434-3131
Internet: www.ppg.com

Annual Meeting

Thursday, April 17, 2003, 11:00 A.M.
112 Washington Place
Pittsburgh Marriott Hotel, City Center
Pittsburgh, PA 15219

Transfer Agent & Registrar

Mellon Investor Services LLC
Overpeck Centre
85 Challenger Road
Ridgefield Park, NJ 07660

PPG-dedicated phone 1-800-648-8160

Internet inquiries: www.mellon-investor.com

As a convenience to shareholders, account information, address changes, requests for replacement checks, and Form 1099's can be accessed by way of the Internet. Log on to Investor ServiceDirect™ at www.mellon-investor.com. Shareholders with specific questions regarding dividend checks, transfer or replacement of stock certificates or dividend tax information should contact Mellon Investor Services.

Investor Relations

General PPG shareholder information may be obtained from Douglas B. Atkinson, Vice President Investor Relations by calling (412) 434-3318, or by writing PPG Industries, Investor Relations, One PPG Place, 40E, Pittsburgh, PA 15272.

Publications Available to Shareholders

Copies of the following publications will be furnished without charge upon written request to Corporate Communications, 7W, PPG Industries, One PPG Place, Pittsburgh, PA 15272.

Form 10-K — the Company's Annual Report filed with the Securities and Exchange Commission.

PPG Industries Blueprint — a booklet summarizing PPG's mission, values, strategy and goals.

PPG's Global Code of Ethics — an employee guide to corporate conduct policies, including those concerning personal conduct, relationships with customers, suppliers and competitors, protection of corporate assets, responsibilities to the public, and PPG as a global organization.

PPG's Environment, Health and Safety Policy — a statement describing the Company's commitment, worldwide, to manufacturing, selling and distributing products in a manner that is safe and healthful for its employees, neighbors and customers, and that protects the environment.

PPG's Environment, Health and Safety Progress Report — a report of progress during the year with respect to the Company's environment, health and safety commitment.

PPG's Responsible Care Commitment — a brochure outlining the Company's voluntary activities under the *Responsible Care* initiative of the American Chemistry Council for safe and ethical management of chemicals.

Dividend Information

PPG has paid uninterrupted dividends since 1899. The latest quarterly dividend of 43 cents per share, voted by the board of directors on Jan. 16, 2003, results in an annual dividend rate of \$1.72 per share.

Stock Exchange Listings

PPG common stock is traded on the New York, Pacific and Philadelphia stock exchanges (symbol: PPG).

Direct Purchase Plan with Dividend Reinvestment Option

This plan is offered as a service and convenience to shareholders. It allows purchase of shares of PPG stock directly through the plan, as well as dividend reinvestment, direct deposit of dividends, and safekeeping of PPG stock certificates.

For more information, call Mellon Investor Services at 1-800-648-8160.

Quarterly Stock Market Price

Quarter Ended	2002			2001		
	High	Low	Close	High	Low	Close
March 31	\$57.34	\$42.62	\$54.91	\$55.50	\$43.00	\$46.09
June 30	61.90	51.16	61.90	59.75	45.55	52.57
Sept. 30	62.84	44.01	44.70	55.78	38.99	45.75
Dec. 31	52.80	41.41	50.15	55.56	44.15	51.72

The number of holders of record of PPG common stock as of Jan. 31, 2003, was 28,704, as shown on the records of the Company's transfer agent.

Dividends

Month of Payment	2002		2001	
	Amount (Millions)	Per Share	Amount (Millions)	Per Share
March	\$ 71	\$.42	\$ 70	\$.42
June	71	.42	71	.42
September	73	.43	71	.42
December	72	.43	71	.42
Total	\$287	\$1.70	\$283	\$1.68

Trademarks

Responsible Care is a trademark of the American Chemistry Council.

Coatings Care is a trademark of the National Paint & Coatings Association.

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