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

FORM 10-Q

QUARTERLY REPORT UNDER SECTION 13 or 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For Quarter Ended September 30, 2015

Commission File Number 1-1687

PPG INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Pennsylvania	**25-0730780**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
One PPG Place, Pittsburgh, Pennsylvania	**15272**
(Address of principal executive offices)	**(Zip Code)**

(412) 434-3131
(Registrant's telephone number, including area code)

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

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

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

Large accelerated filer	☒		Accelerated filer	☐
Non-accelerated filer	☐	(Do not check if a smaller reporting company)	Smaller reporting company	☐

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of September 30, 2015 , 269,269,200 shares of the Registrant's common stock, par value $1.66-2/3 per share, were outstanding.

PPG INDUSTRIES, INC. AND SUBSIDIARIES

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PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Condensed Consolidated Statement of Income (Unaudited)
($ in millions, except per share amounts)

	Three Months Ended September 30		Nine Months Ended September 30	
	2015	2014	2015	2014
Net sales	$ 3,872	$ 3,935	$ 11,634	$ 11,653
Cost of sales, exclusive of depreciation and amortization	2,150	2,229	6,498	6,626
Selling, general and administrative	890	941	2,757	2,826
Depreciation	92	87	271	260
Amortization	33	32	99	93
Research and development, net	119	120	361	366
Interest expense	31	47	94	142
Interest income	(10)	(13)	(31)	(38)
Business restructuring	—	—	140	—
Asbestos settlement, net	3	3	9	9
Other charges	23	150	82	190
Other income	(40)	(160)	(109)	(216)
Income from continuing operations before income taxes	581	499	1,463	1,395
Income tax expense	142	116	356	330
Income from continuing operations	439	383	1,107	1,065
(Loss) Income from discontinued operations, net of tax	—	(6)	1	1,005
Net income attributable to the controlling and noncontrolling interests	439	377	1,108	2,070
Less: Net income attributable to noncontrolling interests	(6)	(6)	(16)	(51)
Net income (attributable to PPG)	$ 433	$ 371	$ 1,092	$ 2,019
Amounts attributable to PPG:				
Income from continuing operations, net of tax	$ 433	$ 377	$ 1,091	$ 1,047
(Loss) Income from discontinued operations, net of tax	—	(6)	1	972
Net income (attributable to PPG)	$ 433	$ 371	$ 1,092	$ 2,019
Earnings per common share:				
Income from continuing operations, net of tax	$ 1.60	$ 1.36	$ 4.00	$ 3.79
(Loss) Income from discontinued operations, net of tax	—	(0.02)	0.01	3.52
Net income (attributable to PPG)	$ 1.60	$ 1.34	$ 4.01	$ 7.31
Earnings per common share – assuming dilution:				
Income from continuing operations, net of tax	$ 1.59	$ 1.35	$ 3.97	$ 3.74
(Loss) Income from discontinued operations, net of tax	—	(0.02)	0.01	3.47
Net income (attributable to PPG)	$ 1.59	$ 1.33	$ 3.98	$ 7.21
Dividends per common share	$ 0.36	$ 0.34	$ 1.05	$ 0.98

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

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Condensed Consolidated Statement of Comprehensive Income (Unaudited)

($ in millions)

	Three Months Ended September 30		Nine Months Ended September 30	
	2015	2014	2015	2014
Net income attributable to the controlling and noncontrolling interests	$ 439	$ 377	$ 1,108	$ 2,070
Other comprehensive (loss) income, net of tax:				
Defined benefit pension and other postretirement benefits	35	16	109	41
Unrealized foreign currency translation adjustments	(300)	(294)	(599)	(236)
Derivative financial instruments, net	2	6	6	6
Other comprehensive loss, net of tax	(263)	(272)	(484)	(189)
Total comprehensive income	$ 176	$ 105	$ 624	$ 1,881
Less: amounts attributable to noncontrolling interests:				
Net income	(6)	(6)	(16)	(51)
Unrealized foreign currency translation adjustments	3	6	8	2
Comprehensive income attributable to PPG	$ 173	$ 105	$ 616	$ 1,832

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

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Condensed Consolidated Balance Sheet (Unaudited)
($ in millions)

	September 30, 2015	December 31, 2014
Assets		
Current assets:		
Cash and cash equivalents	$ 1,015	$ 686
Short-term investments	399	497
Receivables (less allowance for doubtful accounts of $55 and $87)	3,062	2,815
Inventories	1,841	1,825
Deferred income taxes	386	406
Other	589	621
Total current assets	7,292	6,850
Property, plant and equipment (net of accumulated depreciation of $4,433 and $4,378)	2,919	3,092
Goodwill	3,643	3,801
Identifiable intangible assets, net	2,224	2,411
Deferred income taxes	374	505
Investments	453	443
Other assets	669	481
Total	$ 17,574	$ 17,583
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 3,611	$ 3,548
Asbestos settlement	765	821
Restructuring reserves	92	26
Short-term debt and current portion of long-term debt	302	481
Total current liabilities	4,770	4,876
Long-term debt	4,250	3,544
Accrued pensions	664	995
Other postretirement benefits	1,114	1,132
Asbestos settlement	248	259
Deferred income taxes	506	702
Other liabilities	826	810
Total liabilities	12,378	12,318
Commitments and contingent liabilities (Note 15)		
Shareholders' equity:		
Common stock	969	484
Additional paid-in capital	624	1,028
Retained earnings	15,302	14,498
Treasury stock, at cost	(9,192)	(8,714)
Accumulated other comprehensive loss	(2,592)	(2,116)
Total PPG shareholders' equity	5,111	5,180
Noncontrolling interests	85	85
Total shareholders' equity	5,196	5,265
Total	$ 17,574	$ 17,583

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

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Condensed Consolidated Statement of Cash Flows (Unaudited)
($ in millions)

	Nine Months Ended September 30	
	2015	2014
Operating activities:		
Net income attributable to controlling and noncontrolling interests	$ 1,108	$ 2,070
Less: Income from discontinued operations	(1)	(1,005)
Income from continuing operations	1,107	1,065
Adjustments to reconcile net income to cash from operations:		
Depreciation and amortization	370	353
Pension expense	77	49
Stock-based compensation expense	43	53
Business restructuring	140	—
Environmental remediation charge	—	138
Equity affiliate earnings, net of distributions received	(20)	(55)
Deferred income taxes	(42)	(59)
Cash contributions to pension plans	(286)	(12)
Restructuring cash spending	(31)	(41)
Change in certain asset and liability accounts:		
Receivables	(419)	(416)
Inventories	(80)	(205)
Other current assets	(96)	(86)
Accounts payable and accrued liabilities	149	433
Taxes and interest payable	150	107
Noncurrent assets and liabilities, net	(61)	(120)
Other	(15)	40
Cash from operating activities - continuing operations	986	1,244
Cash used for operating activities - discontinued operations	—	(207)
Cash from operating activities	986	1,037
Investing activities:		
Capital expenditures	(266)	(358)
Business acquisitions, net of cash balances acquired	(248)	(114)
Proceeds from the disposition of PPG's interest in the Transitions Optical joint venture and sunlens business	47	1,625
Proceeds from the sale of assets	—	56
Purchase of short-term investments	(97)	(936)
Proceeds from maturity of short-term investments	171	960
Payments on cross currency swap contracts	(34)	(45)
Proceeds from cross currency swap and foreign currency contracts	37	37
Other	39	(4)
Cash (used for) / from investing activities - continuing operations	(351)	1,221
Cash used for investing activities - discontinued operations	—	(1)
Cash (used for) / from investing activities	(351)	1,220
Financing activities:		
Net change in borrowing with maturities of three months or less	(18)	(14)
Net payments on commercial paper and short-term debt	(392)	—
Proceeds from the issuance of debt	1,242	—
Repayment of long-term debt	(339)	(39)
Purchase of treasury stock	(501)	(450)
Issuance of treasury stock	51	52
Dividends paid on PPG common stock	(287)	(269)
Acquisition of noncontrolling interest	—	(39)
Other	(24)	(17)

Cash used for financing activities - continuing operations	(268)	(776)
Cash used for financing activities - discontinued operations	—	(40)
Cash used for financing activities	(268)	(816)
Effect of currency exchange rate changes on cash and cash equivalents	(38)	(89)
Net increase in cash and cash equivalents	329	1,352
Cash and cash equivalents, beginning of period	686	1,116
Cash and cash equivalents, end of period	$ 1,015	$ 2,468
Supplemental disclosures of cash flow information:		
Interest paid, net of amount capitalized	$ 78	$ 160
Taxes paid, net of refunds	$ 291	$ 504

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

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Notes to Condensed Consolidated Financial Statements (Unaudited)

1. Basis of Presentation

The condensed consolidated financial statements included herein are unaudited and have been prepared following the requirements of the Securities and Exchange Commission and accounting principles generally accepted in the United States of America ("U.S. GAAP") for interim reporting. Under these rules, certain footnotes and other financial information that are normally required for annual financial statements can be condensed or omitted. These statements include all adjustments, consisting only of normal, recurring adjustments, necessary for a fair presentation of the financial position of PPG Industries, Inc. and its subsidiaries (the "Company" or "PPG") as of September 30, 2015 , and the results of their operations for the three and nine months ended September 30, 2015 and 2014 and their cash flows for the nine months then ended. All intercompany balances and transactions have been eliminated. Material subsequent events are evaluated through the report issuance date and disclosed where applicable. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in PPG's Annual Report on Form 10-K for the year ended December 31, 2014 .

Revenues, expenses, assets and liabilities can vary during each quarter of the year. Accordingly, the results of operations for the three and nine months ended September 30, 2015 and the trends in these unaudited condensed consolidated financial statements may not necessarily be indicative of the results to be expected for the full year.

On April 16, 2015, the PPG Board of Directors approved a 2 -for-1 split of the company's common stock. PPG common stock began trading on a split-adjusted basis on June 15, 2015. Historical per share and share data (except for shares on the balance sheet) in this Form 10-Q give retroactive effect to the stock split. These reclassifications had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

Certain prior period amounts have been reclassified to conform to the current period presentation. These reclassifications had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

2. New Accounting Standards

In September 2015, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2015-16, "Simplifying the Accounting for Measurement-Period Adjustments." This ASU simplifies the treatment of adjustments to provisional amounts recognized in the period for items in a business combination for which the accounting is incomplete at the end of the reporting period. The amendments in this ASU are effective for fiscal years beginning after December 15, 2015 and for interim periods therein. PPG will apply the provisions of this ASU commencing January 1, 2016.

In July 2015, the FASB issued ASU No. 2015-11, "Simplifying the Measurement of Inventory." This ASU simplifies the measurement of inventory by requiring certain inventory to be measured at the lower of cost or net realizable value. The amendments in this ASU are effective for fiscal years beginning after December 15, 2016 and for interim periods therein. Adoption of this ASU will not have a material impact on PPG's consolidated financial position, results of operations and cash flows.

In April 2015, the FASB issued ASU No. 2015-05, "Customer's Accounting for Fees Paid in a Cloud Computing Arrangement." The new guidance requires the accounting for the cost of licenses to be recognized separately from the fees for computing services. The guidance is effective for annual periods beginning after December 15, 2015. The provisions of the guidance may be applied prospectively or retrospectively. PPG plans to adopt this guidance prospectively and adoption of this ASU is not expected to have a material impact on PPG's consolidated financial position, results of operations and cash flows.

In April 2015, the FASB issued ASU No. 2015-03, "Interest – Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs." This ASU simplifies the presentation of debt issuance costs by requiring that such costs be presented in the balance sheet as a direct deduction from the carrying value of the associated debt instrument, consistent with debt discounts. The amendments in this ASU are effective for fiscal years beginning after December 15, 2015 and for interim periods therein. Adoption of this ASU will not have a material impact on PPG's consolidated financial position, results of operations and cash flows.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers: Topic 606." This ASU replaces nearly all existing U.S. GAAP guidance on revenue recognition. The standard prescribes a five-step model for recognizing revenue, the application of which will require significant judgment. This standard is effective for fiscal years beginning after December 15, 2017, and for interim periods within those fiscal years. PPG is in the process of

assessing the impact the adoption of this ASU will have on its consolidated financial position, results of operations and cash flows.

3. Acquisitions and Dispositions

Acquisitions

Comex

In November 2014, PPG finalized the acquisition of Consorcio Comex, S.A. de C.V. (“Comex”), an architectural coatings company with headquarters in Mexico City, Mexico for $1.95 billion , net of cash acquired of $69 million . PPG also repaid $280 million of third-party debt assumed in the acquisition. Comex manufactures coatings and related products in Mexico and sells them in Mexico and Central America principally through approximately 3,900 stores that are independently owned and operated by more than 700 concessionaires. Comex also sells its products through regional retailers and wholesalers and directly to customers. As of the acquisition date, Comex had approximately 3,900 employees, eight manufacturing facilities and six distribution centers. The acquisition further expands PPG's global coatings business and adds a leading architectural coatings business in Mexico and Central America. Since the acquisition, the results of this acquired business have been principally included in the results of the architectural coatings - Americas and Asia Pacific business, within the Performance Coatings reportable segment. Comex's net sales were approximately $200 million and $630 million for the three and nine month periods ended September 30, 2015 , respectively. Comex's income from continuing operations for both the three and nine months ended September 30, 2015 was a mid-teen percentage return on sales.

The purchase price related to the Comex acquisition was allocated based on information available at the acquisition date and is subject to customary post-closing adjustments. During the nine-months ended 2015, PPG obtained a valuation of property, plant and equipment acquired in the Comex acquisition which resulted in adjustments to property, plant and equipment, non-current deferred tax liabilities and goodwill. Over the nine month period ended September 30, 2015 , PPG recorded remeasurement period adjustments, which have reduced goodwill by a net, aggregate amount of $13 million . These preliminary remeasurement period adjustments are not considered material individually or in the aggregate, therefore, prior periods have not been revised. Certain other preliminary purchase price allocation estimates will be finalized in the fourth quarter of 2015. The following table summarizes the estimated fair value of assets acquired and liabilities assumed as reflected in the preliminary purchase price allocation for Comex.

($ in millions)		
Current assets	$	366
Property, plant, and equipment		230
Trademarks with indefinite lives		1,022
Identifiable intangible assets with finite lives		281
Goodwill		1,073
Other non-current assets		30
Total assets	$	3,002
Current liabilities		(321)
Non-current deferred tax liabilities		(407)
Long-term debt		(280)
Accrued pensions		(20)
Other long-term liabilities		(24)
Total liabilities	$	(1,052)
Total purchase price, net of cash acquired	$	1,950

The identifiable intangible assets with finite lives in the table above, which consist primarily of customer relationships and acquired technology, are subject to amortization over a weighted average period of 24 years . See Note 5, "Goodwill and Other Identifiable Intangible Assets" for further details regarding PPG's intangible assets.

The following information reflects the net sales of PPG for the period ended September 30, 2014 on a pro forma basis as if the transaction for the Comex acquisition had been completed on January 1, 2014.

Condensed Consolidated Pro Forma information (unaudited)

	Three Months Ended September 30	Nine Months Ended September 30
($ in millions)	2014	2014
Net sales	$ 4,138	$ 12,227

The pro forma impact on PPG's results of operations, including the pro forma effect of events that are directly attributable to the acquisition, was not significant to the consolidated results for the three or nine months ended September 30, 2014 . While calculating this impact, no cost savings or operating synergies that may result from the acquisition were included.

Other Acquisitions

Acquisition spending during the nine months ended September 30, 2015 totaled $274 million , net of $130 million of cash acquired and other post-closing adjustments.

On October 1, 2015, PPG acquired a majority interest in the automotive and aerospace sealants and adhesives business of Le Joint Français SNC (“LJF”), a France-based specialty sealants and adhesives manufacturer serving the aerospace, automotive and insulating glass industries. This acquisition brings new approvals and technology variants to PPG that will support geographic expansion and aid growth in existing PPG markets. LJF has been a long-time licensee of PPG Aerospace sealant technology. PPG will report the sales and income from operations for LJF as part of the aerospace coatings business in the Performance Coatings segment.

On September 1, 2015, PPG completed the acquisition of I.V.C. Industrial Coatings, Inc. ("IVC"), a U.S.-based specialty powder and liquid coatings company. IVC's industry-leading coatings are used on a wide variety of products such as metal office furniture, material handling and storage products, automotive parts, motorcycles, industrial containers, small appliances and electronics such as printers, servers and audio-visual equipment. The addition of IVC's high-quality products and industry expertise will further enhance PPG's ability to deliver a robust portfolio of industry-leading industrial coatings solutions. PPG reports the sales and income from operations for IVC as part of the industrial coatings business in the Industrial Coatings segment.

On July 1, 2015, PPG acquired Cuming Microwave Corporation based in Avon, Massachusetts, and its wholly-owned subsidiary Cuming-Lehman Chambers, Inc., based in Chambersburg, Pennsylvania. The acquisition enhances PPG’s portfolio of aerospace coatings with specialty coatings and materials that absorb microwaves and radio waves such as radar. The products are used for military aircraft and also have applications in electronics, telecommunications, medical and automotive end-uses. PPG reports the sales and income from operations for Cuming Microwave Corporation as part of the aerospace business in the Performance Coatings segment.

On June 2, 2015, PPG acquired Consorcio Latinoamericano, which operates a network of 57 paint stores in Central America. With this acquisition, PPG will operate 87 company-owned stores across Belize, El Salvador, Guatemala, Honduras, Costa Rica, Nicaragua and Panama. PPG has branded stores in Panama with the Glidden brand, which is well recognized in the region, and plans to offer products from its protective and marine coatings business in stores throughout Central America. Consorcio Latinoamericano operated as a concessionaire network for PPG-Comex, the Company’s architectural paint and coatings business in Mexico and Central America. PPG reports the sales and income from operations for Consorcio Latinamericano as part of the architectural coatings - Americas and Asia Pacific business in the Performance Coatings segment.

On April 1, 2015, PPG completed the acquisition of Revocoat from the Axson Group. Revocoat, headquartered in France, is a world leader in automotive adhesives and sealants and offers a range of automotive assembly products such as complementary epoxy-based products, polyurethanes and water-based emulsions. Revocoat employs more than 500 people and operates eight manufacturing facilities and one research and development center. PPG reports the sales and income from operations for Revocoat as part of the automotive OEM business in the Industrial Coatings segment.

Dispositions

In September 2014, PPG completed the sale of substantially all of the assets of its former Mt. Zion, Illinois, flat glass manufacturing facility to automotive glass manufacturer Fuyao Glass America Incorporated. As a result of this transaction, the Company recognized a pre-tax gain of $22 million which is reported in the caption "Other income" on

the Condensed Consolidated Statement of Income. The sale did not include specific production assets which are unique and specialized to PPG.

In July 2014, Pittsburgh Glass Works LLC ("PGW"), an equity affiliate in which PPG has an approximate 40% ownership interest, sold its insurance and services business and recognized a pre-tax gain on the sale. PPG accounts for its interest in PGW under the equity method of accounting and in the third quarter of 2014 recognized $94 million as its share of the gain on this transaction. This gain is reported in the caption "Other income" on the Condensed Consolidated Statement of Income. In addition, PPG received a cash distribution of approximately $38 million from PGW to offset PPG's expected income tax liability associated with this sale. The pre-tax gain and the cash distribution are both reported within the "Equity affiliate earnings, net of distributions received" caption on the Condensed Consolidated Statement of Cash Flows.

In March 2014, the Company completed the sale of its 51% ownership interest in its Transitions Optical joint venture and 100% of its optical sunlens business to Essilor International (Compagnie Generale D'Optique) SA ("Essilor"). PPG received cash at closing of $1.735 billion pretax (approximately $1.5 billion after-tax). The cash consideration was subject to certain post-closing adjustments and transaction costs, all of which have been settled. The sale of these businesses, which were previously reported in the former Optical and Specialty Materials segment, resulted in a pretax gain of $1,468 million ($946 million after-tax) reported in discontinued operations. During the first quarter of 2014, the Company recognized $522 million of tax expense on the sale, of which $262 million was deferred U.S. income tax on the foreign earnings of the sale, as PPG does not consider these earnings to be reinvested for an indefinite period of time. The pretax gain on this sale reflects the excess of the sum of the cash proceeds received over the net book value of the net assets of PPG's former Transitions Optical and sunlens business. The Company also incurred $55 million of pretax expense, primarily for professional services related to the sale, post-closing adjustments, costs and other contingencies under the terms of the agreements. The net gain on the sale includes these related losses and expenses. During 2015 and 2014, revisions to estimated tax liabilities associated with the transaction were recorded to discontinued operations.

The results of operations and cash flows of these businesses and the net gain on the sale, are reported as results from discontinued operations for the nine months ending September 30, 2014.

Essilor has also entered into multi-year agreements with PPG for the continued supply of photochromic materials and for research and development services for a period of 5 years , subject to renewal. PPG considered the significance of the revenues associated with the agreements compared to total operating revenues of the disposed businesses and determined that they were not significant. The revenues for these contracts are included in the results from continuing operations.

Net sales and earnings from discontinued operations related to the Transitions Optical and sunlens transaction are presented in the table below for the three and nine months ended September 30, 2015 and 2014:

	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Net sales	$ —	$ —	$ —	$ 247
Income from operations	$ —	$ —	$ —	$ 104
Net gain from divestiture of PPG's interest in the Transitions Optical joint venture and sunlens business	—	—	—	1,468
Income tax expense	—	(6)	1	(567)
(Loss)/Income from discontinued operations, net of tax	—	(6)	1	1,005
Less: Net income attributable to non-controlling interests, discontinued operations	—	—	—	(33)
Net (loss) income from discontinued operations (attributable to PPG)	$ —	$ (6)	$ 1	$ 972

4. Inventories

Inventories include:

($ in millions)	September 30, 2015	December 31, 2014
Finished products	$ 1,182	$ 1,169
Work in process	165	157
Raw materials	441	439
Supplies	53	60
Total	$ 1,841	$ 1,825

Most U.S. inventories are valued using the last-in, first-out method. These inventories represented approximately 39% and 40% of total inventories at September 30, 2015 and December 31, 2014 , respectively. If the first-in, first-out method of inventory valuation had been used, inventories would have been $171 million and $182 million higher as of September 30, 2015 and December 31, 2014 , respectively.

5. Goodwill and Other Identifiable Intangible Assets

The change in the carrying amount of goodwill attributable to each reportable segment for the nine months ended September 30, 2015 was as follows:

($ in millions)	Performance Coatings	Industrial Coatings	Glass	Total
Balance, December 31, 2014	$ 3,267	$ 486	$ 48	$ 3,801
Acquisitions	15	111	—	126
Currency	(254)	(27)	(3)	(284)
Balance, September 30, 2015	$ 3,028	$ 570	$ 45	$ 3,643

The carrying amount of acquired trademarks with indefinite lives as of September 30, 2015 and December 31, 2014 totaled $1.3 billion and $1.4 billion , respectively.

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

	September 30, 2015			December 31, 2014		
($ in millions)	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Acquired technology	$ 562	$ (413)	$ 149	$ 560	$ (394)	$ 166
Customer-related intangibles	1,284	(567)	717	1,302	(570)	732
Trade names	132	(60)	72	134	(60)	74
Other	40	(24)	16	42	(24)	18
Balance	$ 2,018	$ (1,064)	$ 954	$ 2,038	$ (1,048)	$ 990

Aggregate amortization expense related to these identifiable intangible assets for the three and nine months ended September 30, 2015 was $33 million and $99 million , respectively, and for the three and nine months ended September 30, 2014 was $32 million and $93 million , respectively.

As of September 30, 2015 , estimated future amortization expense of identifiable intangible assets is as follows:

($ in millions)	Remaining three months of 2015	2016	2017	2018	2019	2020
Estimated future amortization expense	$34	$120	$115	$110	$95	$90

6. Business Restructuring

The Company records restructuring liabilities that represent charges incurred in connection with consolidations of certain operations, including operations from acquisitions, as well as headcount reduction programs. These charges consist primarily of severance costs and asset write-downs.

On April 15, 2015, the Company approved a business restructuring plan which includes actions necessary to achieve cost synergies related to recent acquisitions. In addition, the program aims to further align employee levels and production capacity in certain businesses and regions with current product demand, as well as reductions in various global administrative functions. A pretax restructuring charge of $140 million was recorded in PPG's second quarter 2015 financial results, of which about 85% represents employee severance and other cash costs. The restructuring actions are expected to be substantially completed during 2016.

The following table summarizes the 2015 restructuring charge and the reserve activity through the quarter ended September 30, 2015:

($ in millions, except for employees impacted)	Severance and Other Costs	Asset Write-offs	Total Reserve	Employees Impacted
Performance Coatings	$ 71	$ 6	$ 77	1,259
Industrial Coatings	42	13	55	534
Glass	4	—	4	33
Corporate	4	—	4	27
Total second quarter 2015 restructuring charge	$ 121	$ 19	$ 140	1,853
Activity to date	(19)	(19)	(38)	(810)
Foreign currency impact	—	—	—	—
Balance as of September 30, 2015	$ 102	$ —	$ 102	1,043

7. Borrowings

In June 2015, PPG's €300 million notes matured, and PPG paid $336 million to settle these obligations.

In March 2015, PPG completed a public offering of €600 million of 0.875% Notes due 2022 and €600 million of 1.400% Notes due 2027 (together, the "Notes"), or €1.2 billion ($1.26 billion) in aggregate principal amount. These Notes were issued pursuant to PPG's existing shelf registration statement and pursuant to an indenture between the Company and The Bank of New York Mellon Trust Company, N.A., as trustee, as supplemented (the "Indenture"). The Indenture governing these notes contains covenants that limit the Company's ability to, among other things, incur certain liens securing indebtedness, engage in certain sale-leaseback transactions, and enter into certain consolidations, mergers, conveyances, transfers or leases of all or substantially all the Company's assets. The terms of these Notes also require the Company to make an offer to repurchase Notes upon a Change of Control Triggering Event (as defined in the Indenture) at a price equal to 101% of their principal amount plus accrued and unpaid interest. The Company may issue additional debt from time to time pursuant to the Indenture.

The aggregate cash proceeds from the Notes, net of discounts and fees, was $1.24 billion . The Notes are denominated in Euro and have been designated as hedges of net investments in the Company's European operations. For more information, refer to Note 13 "Financial Instruments, Hedging Activities and Fair Value Measurements."

8. Earnings Per Common Share

Historical per share and share data (except for shares on the balance sheet) give retroactive effect to the 2 -for-1 stock split discussed in Note 1, "Basis of Presentation."

The following table presents the effect of dilutive securities on the weighted average common shares outstanding included in the calculation of earnings per common share for the three and nine months ended September 30, 2015 and 2014 :

	Three Months Ended September 30		Nine Months Ended September 30	
(number of shares in millions)	2015	2014	2015	2014
Weighted average common shares outstanding	271.1	276.4	272.2	277.4
Effect of dilutive securities:				
Stock options	0.9	1.4	1.0	1.4
Other stock compensation plans	1.1	1.6	1.2	1.4
Potentially dilutive common shares	2.0	3.0	2.2	2.8
Adjusted weighted average common shares outstanding	273.1	279.4	274.4	280.2

Excluded from the computation of diluted earnings per share due to their antidilutive effect were 0.6 million outstanding stock options for the three and nine month periods ended September 30, 2015 . There were no antidilutive outstanding stock options for the three and nine month periods ended September 30, 2014.

9. Income Taxes

The following table presents the effective tax rate on pretax income from continuing operations for the nine months ended September 30, 2015 and 2014 :

	Nine Months Ended September 30	
	2015	2014
Effective tax rate	24.3%	23.7%

The effective tax rate for each period presented is lower than the U.S. federal statutory rate primarily due to earnings in foreign jurisdictions which are taxed at rates lower than the U.S. statutory rate, the U.S. tax benefit on foreign dividends paid and the impact of certain U.S. tax incentives.

The Company files federal, state and local income tax returns in numerous domestic and foreign jurisdictions. In most tax jurisdictions, returns are subject to examination by the relevant tax authorities for a number of years after the returns have been filed. The Company is no longer subject to examinations by tax authorities in any major tax jurisdiction for years before 2006. In addition, the Internal Revenue Service (“IRS”) has completed its examination of the Company’s U.S. federal income tax returns filed for years through 2011. The IRS is currently conducting its examination of the Company's U.S. federal income tax return for 2012 and 2013.

10. Pensions and Other Postretirement Benefits

Net periodic pension and other post-retirement benefit costs are included in "Cost of sales, exclusive of depreciation and amortization," "Selling, general and administrative" and "Research and development" in the accompanying condensed consolidated statement of income.

The net periodic pension and other post-retirement benefit costs for the three and nine months ended September 30, 2015 and 2014 were as follows:

	Pensions			
	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Service cost	$ 14	$ 11	$ 44	$ 38
Interest cost	49	54	152	172
Expected return on plan assets	(76)	(76)	(215)	(224)
Amortization of actuarial losses	34	18	89	58
Amortization of prior service credit	(1)	(1)	(2)	(2)
Settlement losses	7	2	7	7
Curtailments and special termination benefits	1	—	2	—
Net periodic pension benefit cost	$ 28	$ 8	$ 77	$ 49

	Other Postretirement Benefits			
	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Service cost	$ 4	$ 3	$ 14	$ 12
Interest cost	11	10	35	35
Amortization of actuarial losses	7	1	23	8
Amortization of prior service credit	(2)	(2)	(7)	(7)
Net periodic other postretirement benefit cost	$ 20	$ 12	$ 65	$ 48

PPG is not required to make any mandatory contributions to its U.S. defined benefit pension plans in 2015. PPG made pretax, voluntary contributions in the nine months ended September 30, 2015 to its U.S. and non-U.S. pension plans totaling $250 million and $21 million , respectively. PPG made mandatory contributions to its non-U.S. pension plans totaling $15 million for the nine months-ended September 30, 2015 and expects to make additional mandatory contributions to these plans in the range of $3 million to $8 million in the fourth quarter of 2015. PPG expects its net periodic pension and other post-retirement benefit cost, excluding settlement losses, for 2015 will be approximately $170 million , with pension and other post-retirement benefit cost each representing approximately $85 million .

Retained Liabilities and Legacy Settlement Charges

PPG has retained certain liabilities for pension and post-retirement benefits earned for service up to the date of sale of its former automotive glass and service business for employees who were active as of the divestiture date and for individuals who were retirees of the business as of the divestiture date. There have been multiple PPG facilities closures in Canada related to the former automotive glass and services business as well as other PPG businesses. These various plant closures have resulted in partial and full windups, and related settlement charges, of pension plans for various hourly and salary employees employed by these locations. The charges are recorded for the individual plans when a particular windup is approved by the Canadian pension authorities and the Company has made all contributions to the individual plan. The Company recorded settlement charges of $7 million and $2 million in in the third quarter of 2015 and 2014, respectively. Additional windup charges of $50 million to $65 million will be taken in 2016 related to these plant closures. Cash contributions related to these windups are expected to be in the range of $10 million to $20 million in 2016.

11. Shareholders' Equity

The following tables present the change in total shareholders' equity for the nine months ended September 30, 2015 and 2014, respectively:

($ in millions)	Total PPG Shareholders' Equity	Non-controlling Interests	Total
Balance, January 1, 2015	$ 5,180	$ 85	$ 5,265
Net income	1,092	16	1,108
Other comprehensive income, net of tax	(476)	(8)	(484)
Cash dividends	(287)	—	(287)
Issuance of treasury stock	69	—	69
Stock repurchase program	(501)	—	(501)
Stock-based compensation activity	34	—	34
Dividends paid on subsidiary common stock to noncontrolling interests	—	(3)	(3)
Other	—	(5)	(5)
Balance, September 30, 2015	$ 5,111	$ 85	$ 5,196

($ in millions)	Total PPG Shareholders' Equity	Non-controlling Interests	Total
Balance, January 1, 2014	$ 4,932	$ 266	$ 5,198
Net income	2,019	51	2,070
Other comprehensive income, net of tax	(187)	(2)	(189)
Cash dividends	(269)	—	(269)
Issuance of treasury stock	64	—	64
Stock repurchase program	(450)	—	(450)
Stock-based compensation activity	40	—	40
Reduction in noncontrolling interests (Note 3)	(28)	(183)	(211)
Distribution to noncontrolling interests	—	(48)	(48)
Balance, September 30, 2014	$ 6,121	$ 84	$ 6,205

12. Accumulated Other Comprehensive Loss

($ in millions)	Unrealized Foreign Currency Translation Adjustments	Pension and Other Postretirement Benefit Adjustments, net of tax	Unrealized Gain (Loss) on Derivatives, net of tax	Accumulated Other Comprehensive (Loss) Income
Balance, January 1, 2014	$ (38)	$ (1,157)	$ (65)	$ (1,260)
Current year deferrals to AOCI	(367) [a]	—	—	(367)
Current year deferrals to AOCI, tax effected	133 [b]	5 [c]	15 [d]	153
Reclassifications from AOCI to net income	—	36 [c]	(9) [d]	27
Net change	$ (234)	$ 41	$ 6	$ (187)
Balance, September 30, 2014	$ (272)	$ (1,116)	$ (59)	$ (1,447)
Balance, January 1, 2015	$ (628)	$ (1,492)	$ 4	$ (2,116)
Current year deferrals to AOCI	(679) [a]	—	—	(679)
Current year deferrals to AOCI, tax effected	88 [b]	40 [c]	(36) [d]	92
Reclassifications from AOCI to net income	—	69 [c]	42 [d]	111
Net change	$ (591)	$ 109	$ 6	$ (476)
Balance, September 30, 2015	$ (1,219)	$ (1,383)	$ 10	$ (2,592)

(a) - Unrealized foreign currency translation adjustments related to the translation of foreign denominated balance sheet account balances are not presented net of tax given that no deferred U.S. income taxes have been provided on the undistributed earnings of non-U.S. subsidiaries because they are deemed to be reinvested for an indefinite period of time.

(b) - The tax cost (benefit) related to unrealized foreign currency translation adjustments on tax inter-branch transactions and net investment hedges for the nine months ended September 30, 2015 and 2014 was $23 million and ($15) million , respectively. In 2015, the balance also includes a remeasurement of the tax cost on certain foreign proceeds which have not been permanently reinvested.

(c) - The tax cost related to the adjustment for pension and other postretirement benefits for the nine months ended September 30, 2015 and 2014 was $50 million and $20 million , respectively. Reclassifications from AOCI are included in the computation of net periodic pension and other post-retirement benefit costs (See Note 10, "Pensions and Other Postretirement Benefits").

(d) - The tax cost related to the change in the unrealized gain on derivatives for the period ended September 30, 2015 was $2 million . Reclassifications from AOCI are included in the gain or loss recognized on cash flow hedges (See Note 13, "Financial Instruments, Hedging Activities and Fair Value Measurements").

13. Financial Instruments, Hedging Activities and Fair Value Measurements

Financial instruments include cash and cash equivalents, short-term investments, cash held in escrow, marketable equity securities, accounts receivable, company-owned life insurance, accounts payable, short-term and long-term debt instruments, and derivatives. The fair values of these financial instruments approximated their carrying values at September 30, 2015 and December 31, 2014, in the aggregate, except for long-term debt instruments.

Hedging Activities

The Company has exposure to market risk from changes in foreign currency exchange rates, PPG's stock price and interest rates. As a result, financial instruments, including derivatives, may be used to hedge these underlying economic exposures. Certain of these instruments qualify as cash flow, fair value and net investment hedges upon meeting the requisite criteria, including effectiveness of offsetting hedged or underlying exposures. Changes in the fair value of derivatives that do not qualify for hedge accounting are recognized in income from continuing operations in the period incurred.

PPG’s policies do not permit speculative use of derivative financial instruments. 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 did not realize a credit loss on derivatives during the three and nine month periods ended September 30, 2015 and 2014.

All of PPG's outstanding derivative instruments are subject to accelerated settlement in the event of PPG’s failure to meet its debt or payment obligations under the terms of the instruments’ contractual provisions. In addition, should the Company be acquired and its payment obligations under the derivative instruments’ contractual arrangements not be assumed by the acquirer, or should PPG enter into bankruptcy, receivership or reorganization proceedings, the instruments would also be subject to accelerated settlement.

Fair Value Hedges

PPG designates certain foreign currency forward contracts as hedges against the Company’s exposure to future changes in fair value of certain firm sales commitments denominated in foreign currencies. As of September 30, 2015 and 2014, the fair value of these contracts was insignificant.

Interest rate swaps have been used from time to time to manage the Company's exposure to changing interest rates. When outstanding, the interest rate swaps were designated as fair value hedges of certain outstanding debt obligations of the Company and were recorded at fair value. There were no interest rate swaps outstanding as of September 30, 2015 and December 31, 2014. However, in prior years, PPG settled interest rate swaps and received cash. The fair value adjustment of the debt at the time the interest rate swaps were settled is still being amortized as a reduction to interest expense over the remaining term of the related debt.

PPG has entered into renewable equity forward arrangements to hedge the impact to PPG's income from continuing operations for changes in the fair value of 1,388,889 shares of PPG stock (before giving effect to the 2-for-1 stock split as discussed in Note 1, "Basis of Presentation") that are to be contributed to the asbestos settlement trust as discussed in Note 15, “Commitments and Contingent Liabilities.” This financial instrument is recorded at fair value as an asset or liability and changes in the fair value of this financial instrument are reflected in the “Asbestos settlement – net” caption of the accompanying condensed consolidated statement of income. The total principal amount payable for these shares is $62 million . PPG will pay to the counterparty interest based on the principal amount and the counterparty will pay to PPG an amount equal to the dividends paid on these shares during the period this financial 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, adjusted for credit risk, represents the fair value of the financial instrument as well as the amount that PPG would pay or receive if the counterparty chose to net settle the financial instrument. Alternatively, the bank may, at its option, require PPG to purchase the shares covered by the arrangement at the principal amount adjusted for unpaid interest and dividends as of the date of settlement. As of September 30, 2015 and December 31, 2014, the fair value of this contract was an asset of $192 million and $268 million , respectively.

Cash Flow Hedges

PPG designates certain foreign currency forward contracts as cash flow hedges of the Company’s exposure to variability in exchange rates on intercompany and third party transactions denominated in foreign currencies. As of September 30, 2015 and December 31, 2014, the fair value of all foreign currency forward contracts designated as cash flow hedges was a net asset of $45 million and $46 million , respectively.

Net Investment Hedges

PPG uses cross currency swaps, foreign currency forward contracts and Euro-denominated debt to hedge a portion of its net investment in its European operations. As of September 30, 2015, U.S. dollar to Euro cross currency swap contracts with a total notional amount of $560 million were outstanding and are scheduled to expire in March 2018. On settlement of the outstanding contracts, PPG will receive $560 million U.S. dollars and pay Euros to the counterparties. During the term of these contracts, PPG will receive semiannual payments in March and September of each year based on a U.S. dollar, long-term interest rate fixed as of the contract inception date, and PPG will make annual payments in March of each year to the counterparties based on a Euro, long-term interest rate fixed as of the contract inception date. As of September 30, 2015 and December 31, 2014, the fair value of these contracts was a net asset of $29 million and a net liability of $32 million , respectively.

In March 2015, the Company issued two Euro-denominated notes with an aggregate principal amount of €1.2 billion . Refer to Note 7, "Borrowings" for more information. The Company has designated these notes as hedges of a portion of its net investment in its European operations and, as a result, mark to market rate adjustments of the outstanding debt balances have been and will be recorded as a component of "Other comprehensive income."

Also, in March 2015, PPG de-designated €300 million of Euro-denominated borrowings originally issued in June 2005 and designated as a net investment hedge of a portion of PPG's net investment in the Company's European operations. There was no financial statement impact as a result of the de-designation. This borrowing matured and was repaid in June 2015.

At September 30, 2015 and December 31, 2014, PPG had designated €1.9 billion and €1 billion , respectively, of Euro-denominated borrowings as hedges of a portion of its net investment in the Company's European operations. The carrying value of these instruments at September 30, 2015 and December 31, 2014 was $2.1 billion and $1.2 billion , respectively.

Gains/Losses Deferred in AOCI

As of September 30, 2015 and December 31, 2014, the Company had accumulated pretax unrealized translation gains in AOCI related to the Euro-denominated borrowings, foreign currency forward contracts and the cross currency swaps of $280 million and $169 million , respectively.

The following table summarizes the location and amount of gains (losses) related to derivative financial instruments for the nine months ended September 30, 2015. All dollar amounts are shown on a pretax basis.

($ in millions)	September 30, 2015		
	Gain Deferred in OCI	Gain (Loss) Recognized	
Hedge Type		Amount	Caption
Fair Value			
Equity forward arrangements	Not applicable	(76)	Asbestos - net
Total Fair Value		$ (76)	
Cash Flow			
Foreign currency forward contracts [(a)]	$ 59	$ 53	Other charges
Total Cash Flow	$ 59	$ 53	
Net Investment			
Cross currency swaps	$ 64		
Foreign currency forward contracts	19		
Foreign denominated debt	28		
Total Net Investment	$ 111		
Economic			
Foreign currency forward contracts		$ 19	Other charges

(a) The ineffective portion related to this item was $5 million of expense.

The following table summarizes the location and amount of gains (losses) related to derivative financial instruments for the nine months ended September 30, 2014. All amounts are shown on a pretax basis:

($ in millions)	September 30, 2014		
		Gain (Loss) Recognized	
Hedge Type	Gain (Loss) Deferred in OCI	Amount	Caption
Fair Value			
Interest rate swaps	Not applicable	$ 6	Interest expense
Foreign currency forward contracts	Not applicable	1	Net Sales
Equity forward arrangements	Not applicable	11	Asbestos - net
Total Fair Value		$ 18	
Cash Flow			
Forward starting swaps	$ —	$ (9)	Interest expense
Foreign currency forward contracts [(a)]	23	24	Other charges
Total Cash Flow	$ 23	$ 15	
Net Investment			
Cross currency swaps	$ 47	$ —	Other charges
Foreign currency forward contracts	45	—	Other charges
Foreign denominated debt	33	Not applicable	
Total Net Investment	$ 125	$ —	

(a) The ineffective portion related to this item was $5 million of expense.

Fair Value Measurements

The Company follows a fair value measurement hierarchy to measure its assets and liabilities. As of September 30, 2015 and December 31, 2014, the assets and liabilities measured at fair value on a recurring basis were cash equivalents, equity securities and derivatives. In addition, the Company measures its pension plan assets at fair value (see Item 8. Financial Statements and Supplementary Data - Note 12, "Employee Benefit Plans" in the Company's 2014 Annual Report on Form 10-K for further details). The Company's financial assets and liabilities are measured using inputs from the following three levels:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets and liabilities that the Company has the ability to access at the measurement date. Level 1 inputs are considered to be the most reliable evidence of fair value as they are based on unadjusted quoted market prices from various financial information service providers and securities exchanges.

Level 2 inputs are directly or indirectly observable prices that are not quoted on active exchanges, which include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability and inputs that are derived principally from or corroborated by observable market data by correlation or other means. The fair values of the derivative instruments reflect the instruments' contractual terms, including the period to maturity, and uses observable market-based inputs, including forward curves.

Level 3 inputs are unobservable inputs employed for measuring the fair value of assets or liabilities. The Company does not have any recurring financial assets or liabilities that are recorded in its consolidated balance sheets as of September 30, 2015 and December 31, 2014 that are classified as Level 3 inputs.

Assets and liabilities reported at fair value on a recurring basis:

($ in millions)	September 30, 2015		
	Level 1	Level 2	Level 3
Assets:			
Other current assets:			
Marketable equity securities	$ 5	$ —	$ —
Foreign currency forward contracts	—	45	—
Equity forward arrangement	—	192	—
Investments:			
Marketable equity securities	72	—	—
Other Assets:			
Cross currency swaps	—	29	—
Liabilities:			
Accounts payable and accrued liabilities:			
Foreign currency forward contracts	—	2	—

($ in millions)	December 31, 2014		
	Level 1	Level 2	Level 3
Assets:			
Other current assets:			
Marketable equity securities	$ 5	$ —	$ —
Foreign currency forward contracts	—	52	—
Equity forward arrangement	—	268	—
Investments:			
Marketable equity securities	74	—	—
Other assets:			
Foreign currency forward contracts	—	16	—
Liabilities:			
Accounts payable and accrued liabilities:			
Foreign currency forward contracts	—	23	—
Other liabilities:			
Cross currency swaps	—	32	—

Long-Term Debt

PPG's long-term debt (excluding capital lease obligations of $29 million and short term borrowings of $42 million) had carrying and fair values totaling $4,481 million and $4,588 million , respectively, as of September 30, 2015. Long-term debt (excluding capital lease obligations of $33 million and short term borrowings of $115 million) had carrying and fair values totaling $3,877 million and $4,164 million , respectively, as of December 31, 2014. The fair values of the debt instruments were based on discounted cash flows and interest rates then currently available to the Company for instruments of the same remaining maturities and were measured using level 2 inputs.

Assets and liabilities reported at fair value on a nonrecurring basis:

In conjunction with the restructuring actions approved in the second quarter of 2015, certain nonmonetary assets were written down to their fair value. Refer to Note 6, "Business Restructuring."

There were no significant adjustments to the fair value of nonmonetary assets or liabilities for the year ended December 31, 2014.

14. Stock-Based Compensation

The Company’s stock-based compensation includes stock options, restricted stock units (“RSUs”) and grants of contingent shares that are earned based on achieving targeted levels of total shareholder return. All current grants of stock options, RSUs and contingent shares are made under the PPG Industries, Inc. Amended and Restated Omnibus

Incentive Plan (the “PPG Amended Omnibus Plan”), which was amended and restated effective April 21, 2011. Shares available for future grants under the PPG Amended Omnibus Plan were 10 million as of September 30, 2015.

The following table presents stock-based compensation and the income tax benefit recognized during the three and nine months ended September 30, 2015 and 2014:

	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Total stock-based compensation	$ 3	$ 15	$ 43	$ 53
Income tax benefit recognized	1	5	15	18

The following are the details of grants of stock-based compensation during the nine months ended September 30, 2015 and 2014:

	Nine Months Ended September 30			
	2015		2014	
Grant Details	Shares	Fair Value	Shares	Fair Value
Stock options	589,350	$ 26.94	725,442	$ 21.55
Restricted stock units	201,421	$ 113.75	256,092	$ 90.20
Contingent shares (a)	64,718	$ 117.91	77,518	$ 93.53

(a) The number of contingent shares represents the target value of the award.

Stock options are generally exercisable 36 months after being granted and have a maximum term of 10 years. Compensation expense for stock options is recorded over the vesting period based on the fair value on the date of grant. The fair value of the stock option grants issued in the nine months ended September 30, 2015 was calculated with the following weighted average assumptions:

Weighted average exercise price	$ 118.02
Risk-free interest rate	1.9%
Expected life of option in years	6.5
Expected dividend yield	2.7%
Expected volatility	29.2%

The risk-free interest rate is determined by using the U.S. Treasury yield curve at the date of the grant and using a maturity equal to the expected life of the option. The expected life of options is calculated using the average of the vesting term and the maximum term, as prescribed by accounting guidance on the use of the simplified method for determining the expected term of an employee share option. The expected dividend yield and volatility are based on historical stock prices and dividend amounts over past time periods equal in length to the expected life of the options.

Time-based RSUs generally vest over the three -year period following the date of grant, unless forfeited, and will be paid out in the form of stock, cash or a combination of both at the Company’s discretion at the end of the vesting period. Performance-based RSUs vest based on achieving specific annual performance targets for earnings per share growth and cash flow return on capital over the three calendar year-end periods following the date of grant. Unless forfeited, the performance-based RSUs will be paid out in the form of stock, cash or a combination of both at the Company’s discretion at the end of the three-year performance period if PPG meets the performance targets.

Contingent share grants (referred to as “TSR awards”) are made annually and are paid out at the end of each three -year period following the date of grant based on PPG's performance. Performance is measured by determining the percentile rank of the total shareholder return of PPG common stock in relation to the total shareholder return of the S&P 500 as it existed at the beginning of the three-year performance period excluding any companies that have been removed from the index because they ceased to be publicly traded during the performance period. Any payments made at the end of the award period may be in the form of stock, cash or a combination of both. The TSR awards qualify as liability awards, and compensation expense is recognized over the three-year award period based on the fair value of the awards (giving consideration to the Company’s percentile rank of total shareholder return) remeasured in each reporting period until settlement of the awards.

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

The results of any current or future litigation and claims are 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.

Foreign Tax Matter

In June 2014, PPG received a notice from a Foreign Tax Authority ("FTA") inviting the Company to pay interest totaling approximately $70 million for failure to withhold taxes on a 2009 intercompany dividend. Prior to the payment of the dividend, PPG obtained a ruling from the FTA which indicated that the dividend was tax-exempt and eligible for a simplified no-withholding procedure provided that certain administrative criteria were met. The FTA is now asserting that PPG did not meet all of the administrative criteria for the simplified procedure, and consequently taxes should have been withheld by the dividend payer, which would have made the dividend recipient eligible for a refund. The Company disagrees with the FTA's assertion. In March 2015, PPG received a formal assessment from the FTA. PPG plans to vigorously defend against the assessment.

Asbestos Matters

For over 30 years, PPG has been a defendant in lawsuits involving claims alleging personal injury from exposure to asbestos. Most of PPG's potential exposure relates to allegations by plaintiffs that PPG should be liable for injuries involving asbestos-containing thermal insulation products, known as Unibestos, 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. As of the April 16, 2000 order which stayed and enjoined asbestos claims against PPG (as discussed below), PPG was one of many defendants in numerous asbestos-related lawsuits involving approximately 114,000 claims served on PPG. During the period of the stay, PPG generally has not been aware of the dispositions, if any, of these asbestos claims.

Background of PC Bankruptcy Plan of Reorganization

On April 16, 2000, PC filed for Chapter 11 Bankruptcy in the U.S. Bankruptcy Court for the Western District of Pennsylvania located in Pittsburgh, Pa. 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 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 30 days after the effective date of a confirmed plan of reorganization for PC substantially in accordance with the settlement arrangement among PPG and several other parties discussed below. By its terms, the stay may be terminated if 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, and the legal representatives of future asbestos claimants appointed in the PC bankruptcy, on the terms of a settlement arrangement relating to certain asbestos claims against PPG and PC (the "2002 PPG Settlement Arrangement").

On March 28, 2003, Corning Incorporated announced that it had separately reached its own arrangement with the representatives of asbestos claimants for the settlement of certain asbestos claims against Corning Incorporated and PC (the "2003 Corning Settlement Arrangement").

The terms of the 2002 PPG Settlement Arrangement and the 2003 Corning Settlement Arrangement were incorporated into a bankruptcy reorganization plan for PC along with a disclosure statement describing the plan, which PC filed with the Bankruptcy Court on April 30, 2003. Amendments to the plan and disclosure statement were subsequently filed. On November 26, 2003, after considering objections to the second amended disclosure statement and plan of

reorganization, the Bankruptcy Court entered an order approving such disclosure statement and directing that it be sent to creditors, including asbestos claimants, for voting. In March 2004, the second amended PC plan of reorganization (the “second amended PC plan of reorganization”) received the required votes to approve the plan with a channeling injunction for present and future asbestos claimants under §524(g) of the Bankruptcy Code. After voting results for the second amended PC plan of reorganization were received, the Bankruptcy Court judge conducted a 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 (the “Trust”) to be established as part of the second amended PC plan of reorganization. At that hearing, creditors and other parties in interest raised objections to the second amended PC plan of reorganization. Following that hearing, the Bankruptcy Court scheduled oral arguments for the contested items.

The Bankruptcy Court heard oral arguments on the contested items on November 17-18, 2004. At the conclusion of the hearing, the Bankruptcy Court agreed to consider certain post-hearing written submissions. In a further development, on February 2, 2005, the Bankruptcy Court established a briefing schedule to address whether certain aspects of a decision of the U.S. Third Circuit Court of Appeals in an unrelated case had any applicability to the second amended PC plan of reorganization. Oral arguments on these matters were subsequently held in March 2005. During an omnibus hearing on February 28, 2006, the Bankruptcy Court judge stated that she was prepared to rule on the PC plan of reorganization in the near future, provided certain amendments were made to the plan. Those amendments were filed, as directed, on March 17, 2006. After further conferences and supplemental briefings, in December 2006, the court denied confirmation of the second amended PC plan of reorganization, on the basis that the plan was too broad in the treatment of allegedly independent asbestos claims not associated with PC.

Terms of 2002 PPG Settlement Arrangement

PPG had no obligation to pay any amounts under the 2002 PPG Settlement Arrangement until 30 days after the second amended PC plan of reorganization was finally approved by an appropriate court order that was no longer subject to appellate review (the “Effective Date”). If the second amended PC plan of reorganization had been approved as proposed, PPG and certain of its insurers (along with PC) would have made payments on the Effective Date to the Trust, which would have provided 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 have conveyed the following assets to the Trust: (i) the stock it owns in PC and Pittsburgh Corning Europe, (ii) 1,388,889 shares of PPG’s common stock (before giving effect to the 2-for-1 stock split discussed in Note 1, "Basis of Presentation") and (iii) 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 had 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 as of the prepayment date. In addition to the conveyance of these assets, PPG would have paid $30 million in legal fees and expenses on behalf of the Trust to recover proceeds from certain historical insurance assets, including policies issued by certain insurance carriers that were not participating in the settlement, the rights to which would have been assigned to the Trust by PPG.

Under the proposed 2002 PPG Settlement Arrangement, PPG’s participating historical insurance carriers would have made cash payments to the Trust of approximately $1.7 billion between the Effective Date and 2023. These payments could also have been prepaid to the Trust at any time at a discount rate of 5.5% per annum as of the prepayment date. In addition, as referenced above, PPG would have assigned to the Trust its rights, insofar as they related to the asbestos claims to have been resolved by the Trust, to the proceeds of policies issued by certain insurance carriers that were not participating in the 2002 PPG Settlement Arrangement and from the estates of insolvent insurers and state insurance guaranty funds.

Under the proposed 2002 PPG Settlement Arrangement, PPG would have granted asbestos releases to all participating insurers, subject to a coverage-in-place agreement with certain insurers for the continuing coverage of premises claims (discussed below). PPG would have granted certain participating insurers full policy releases on primary policies and full product liability releases on excess coverage policies. PPG would have also granted certain other participating excess insurers credit against their product liability coverage limits.

If the second amended PC plan of reorganization incorporating the terms of the 2002 PPG Settlement Arrangement and the 2003 Corning Settlement Arrangement had been approved by the Bankruptcy Court, the Court would have entered a channeling injunction under §524(g) and other provisions of the Bankruptcy Code, prohibiting present and future claimants from asserting bodily injury claims after the Effective Date 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 have also prohibited codefendants in those cases from asserting claims against PPG for contribution,

indemnification or other recovery. All such claims would have been filed with the Trust and only paid from the assets of the Trust.

Modified Third Amended PC Plan of Reorganization

To address the issues raised by the Bankruptcy Court in its December 2006 ruling, the interested parties engaged in extensive negotiations regarding the terms of a third amended PC plan of reorganization, including modifications to the 2002 PPG Settlement Arrangement. A modified third amended PC plan of reorganization (the "third amended PC plan of reorganization"), including a modified PPG settlement arrangement (the "2009 PPG Settlement Arrangement"), was filed with the Bankruptcy Court on January 29, 2009. The parties also filed a disclosure statement describing the third amended PC plan of reorganization with the court. The third amended PC plan of reorganization also includes a modified settlement arrangement of Corning Incorporated.

Several creditors and other interested parties filed objections to the disclosure statement. Those objections were overruled by the Bankruptcy Court by order dated July 6, 2009 approving the disclosure statement. The third amended PC plan of reorganization and disclosure statement were then sent to creditors, including asbestos claimants, for voting. The report of the voting agent, filed on February 18, 2010, revealed that all voting classes, including asbestos claimants, voted overwhelmingly in favor of the third amended PC plan of reorganization, which included the 2009 PPG Settlement Arrangement. In light of the favorable vote on the third amended PC plan of reorganization, the Bankruptcy Court conducted a hearing regarding the fairness of the proposed plan, including whether (i) the plan would be fair with respect to present and future claimants, (ii) such claimants would be treated in substantially the same manner, and (iii) the protection provided to PPG and its participating insurers would be fair in view of the assets they would convey to the Trust to be established as part of the third amended PC plan of reorganization. The hearing was held in June of 2010. The remaining objecting parties (a number of objections were resolved through plan amendments and stipulations filed before the hearing) appeared at the hearing and presented their cases. At the conclusion of the hearing, the Bankruptcy Court established a briefing schedule for its consideration of confirmation of the plan and the objections to confirmation. That briefing was completed and final oral arguments held in October 2010. On June 16, 2011 the Bankruptcy Court issued a decision denying confirmation of the third amended PC plan of reorganization.

Following the June 16, 2011 ruling, the third amended PC plan of reorganization was the subject of negotiations among the parties in interest, amendments, proposed amendments and hearings. PC then filed an amended PC plan of reorganization on August 17, 2012. Objections to the plan, as amended, were filed by three entities. One set of objections was resolved by PC, and another set merely restated for appellate purposes objections filed by a party that the Bankruptcy Court previously overruled. The Bankruptcy Court heard oral argument on the one remaining set of objections filed by the remaining affiliated insurer objectors on October 10, 2012. At the conclusion of that argument, the Bankruptcy Court set forth a schedule for negotiating and filing language that would resolve some, but not all, of the objections to confirmation advanced by the insurer objectors. On October 25, 2012, PC filed a notice regarding proposed confirmation order language that resolved those specific objections. Following additional hearings and status conferences, technical amendments to the PC plan of reorganization were filed on May 15, 2013. On May 16, 2013, the Bankruptcy Court issued a memorandum opinion and interim order confirming the PC plan of reorganization, as amended, and setting forth a schedule for motions for reconsideration. Following the filing of motions for reconsideration, the Bankruptcy Court, on May 24, 2013, issued a revised memorandum opinion and final order confirming the modified third amended plan of reorganization and issuing the asbestos permanent channeling injunction. The remaining insurer objectors filed a motion for reconsideration on June 6, 2013. On November 12, 2013, the Bankruptcy Court issued an order granting in part (by clarifying the scope of the channeling injunction in accordance with the agreement of the parties as expressed at the time of final argument on the motion for reconsideration) and otherwise denying the motion for reconsideration. Notices of appeal to the U. S. District Court for the Western District of Pennsylvania were filed by the remaining objecting parties. On March 17, 2014, the appeal of the remaining non-insurer objecting party was dismissed voluntarily, leaving only two affiliated insurance companies as appellants.

On September 30, 2014, the District Court issued a memorandum opinion and order affirming the confirmation order. On October 28, 2014, the remaining insurance company objectors filed a Notice of Appeal with the U.S. Third Circuit Court of Appeals challenging the affirmance order. All briefs associated with this appeal have been filed. In addition to the appeal, the objecting insurers filed a motion with the District Court, which was opposed by PPG and the other plan proponents and plan supporters, that sought relief from the confirmation order based on alleged misconduct by members of the plaintiffs' bar in the prosecution of certain asbestos claims in the tort system. On August 12, 2015, the District Court denied that motion. The objecting insurers filed a Notice of Appeal with the U.S. Third Circuit Court of Appeals challenging this decision as well. The U.S. Third Circuit Court of Appeals has consolidated both appeals. Briefing by the parties on the second appeal will occur through the fourth quarter of 2015. If the District Court opinions and orders are affirmed by the U.S. Third Circuit Court of Appeals, the remaining objectors subsequently could seek review by the U.S. Supreme Court.

The 2009 PPG Settlement Arrangement will not become effective until certain conditions precedent are satisfied or waived and the amended PC plan of reorganization is finally approved by an appropriate court order that is no longer subject to appellate review, and PPG's initial contributions will not be due until 30 business days thereafter (the "Funding Effective Date").

Asbestos Claims Subject to Bankruptcy Court's Channeling Injunction

The Bankruptcy Court's channeling injunction, entered under §524(g) of the Bankruptcy Code and which will become effective after the order confirming the modified third amended plan of reorganization is no longer subject to appellate review, will prohibit present and future claimants from asserting asbestos claims against PC. With regard to PPG, the channeling injunction by its terms will prohibit present and future claimants from asserting claims against PPG that arise, in whole or in part, out of exposure to Unibestos, or any other asbestos or asbestos-containing products manufactured, sold and/or distributed by PC, or asbestos on or emanating from any PC premises. The injunction by its terms will also prohibit codefendants in these cases that are subject to the channeling injunction from asserting claims against PPG for contribution, indemnification or other recovery. Such injunction will also preclude the prosecution of claims against PPG arising from alleged exposure to asbestos or asbestos-containing products to the extent that a claimant is alleging or seeking to impose liability, directly or indirectly, for the conduct of, claims against or demands on PC by reason of PPG's: (i) ownership of a financial interest in PC; (ii) involvement in the management of PC, or service as an officer, director or employee of PC or a related party; (iii) provision of insurance to PC or a related party; or (iv) involvement in a financial transaction affecting the financial condition of PC or a related party. The foregoing PC related claims are referred to as "PC Relationship Claims" and constitute, in PPG management's opinion, the vast majority of the pending asbestos personal injury claims against PPG. All claims channeled to the Trust will be paid only from the assets of the Trust.

Asbestos Claims Retained by PPG

The channeling injunction will not extend to any claim against PPG that arises out of exposure to any asbestos or asbestos-containing products manufactured, sold and/or distributed by PPG or its subsidiaries, or for which they are otherwise alleged to be liable, that is not a PC Relationship Claim, and in this respect differs from the channeling injunction contemplated by the second amended PC plan of reorganization filed in 2003. While management believes that the vast majority of the approximately 114,000 claims against PPG alleging personal injury from exposure to asbestos relate to products manufactured, distributed or sold by PC, the potential liability for any non-PC Relationship Claims will be retained by PPG. Because a determination of whether an asbestos claim is a non-PC Relationship Claim would typically not be known until shortly before trial and because the filing and prosecution of asbestos claims (other than certain premises claims) against PPG has been enjoined since April 2000, the actual number of non-PC Relationship Claims that may be pending at the expiration of the stay or the number of additional claims that may be filed against PPG in the future cannot be determined at this time. PPG intends to defend against all such claims vigorously and their ultimate resolution in the court system is expected to occur over a period of years.

In addition, similar to what was contemplated by the second amended PC plan of reorganization, the channeling injunction will not extend to claims against PPG alleging personal injury caused by asbestos on premises owned, leased or occupied by PPG (so called "premises claims"), which generally have been subject to the stay imposed by the Bankruptcy Court, although motions to lift the stay as to individual premises claims have been granted from time to time. Historically, a small proportion of the claims against PPG and its subsidiaries have been premises claims, and based upon review and analysis, PPG believes that the number of premises claims currently comprises less than 2% of the total asbestos related claims against PPG. Beginning in late 2006, the Bankruptcy Court lifted the stay with respect to certain premises claims against PPG. As a result, PPG and its primary insurers have settled approximately 580 premises claims. PPG's insurers agreed to provide insurance coverage for a major portion of the payments made in connection with the settled claims, and PPG accrued the portion of the settlement amounts not covered by insurance. Primarily as a result of motions practice in the Bankruptcy Court with respect to the application of the stay to premises claims, PPG faces approximately 290 active premises claims. PPG is currently engaged in the process of settling or otherwise resolving approximately 80 of these claims. Of the remaining 210 active premises claims, approximately 115 such claims have been initiated in lawsuits filed in various state courts, primarily in Louisiana, West Virginia, Ohio, Illinois, and Pennsylvania, and are the subjects of active litigation and are being defended by PPG. PPG believes that any financial exposure resulting from such premises claims, taking into account available insurance coverage, will not have a material adverse effect on PPG's consolidated financial position, liquidity or results of operations.

PPG's Funding Obligations

PPG has no obligation to pay any amounts under the third amended PC plan of reorganization, as amended, until the Funding Effective Date. On the Funding Effective Date, PPG will relinquish any claim to its equity interest in PC, convey

the stock it owns in Pittsburgh Corning Europe and transfer 1,388,889 shares of PPG's common stock (before giving effect to the 2 for 1 stock split discussed in Note 1, "Basis of Presentation") or cash equal to the fair value of such shares as defined in the 2009 PPG Settlement Arrangement. PPG will make aggregate pretax cash payments to the Trust of approximately $825 million , payable according to a fixed payment schedule over a period ending in 2023. The first payment is due on the Funding Effective Date. PPG would have the right, in its sole discretion, to prepay these pretax cash payments to the Trust at any time at a discount rate of 5.5% per annum as of the prepayment date. PPG's historical insurance carriers participating in the third amended PC plan of reorganization will also make cash payments to the Trust of approximately $1.7 billion between the Funding Effective Date and 2027. 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. PPG will grant asbestos releases and indemnifications to all participating insurers, subject to amended coverage-in-place arrangements with certain insurers for remaining coverage of premises claims. PPG will grant certain participating insurers full policy releases on primary policies and full product liability releases on excess coverage policies. PPG will also grant certain other participating excess insurers credit against their product liability coverage limits.

PPG's obligation under the 2009 PPG Settlement Arrangement at December 31, 2008 was $162 million less than the amount that would have been due under the 2002 PPG Settlement Arrangement. This reduction is attributable to a number of negotiated provisions in the 2009 PPG Settlement Arrangement, including the provisions relating to the channeling injunction under which PPG retains liability for any non-PC Relationship Claims. PPG will retain such amount as a reserve for asbestos-related claims that will not be channeled to the Trust, as this amount represents PPG's best estimate of its liability for these claims. PPG does not have sufficient current claim information or settlement history on which to base a better estimate of this liability, in light of the fact that the Bankruptcy Court's stay has been in effect since 2000. As a result, PPG's reserve at September 30, 2015 and December 31, 2014 for asbestos-related claims that will not be channeled to the Trust is $162 million . This amount is included within "Other liabilities" on the accompanying consolidated balance sheets. In addition, under the 2009 PPG Settlement Arrangement, PPG will retain for its own account rights to recover proceeds from certain historical insurance assets, including policies issued by non-participating insurers. Rights to recover these proceeds would have been assigned to the Trust by PPG under the 2002 PPG Settlement Arrangement.

Following the effective date of the third amended PC plan of reorganization, as amended, and the lifting of the Bankruptcy Court stay, PPG will monitor the activity associated with asbestos claims which are not channeled to the Trust pursuant to the third amended PC plan of reorganization, and evaluate its estimated liability for such claims and related insurance assets then available to the Company as well as underlying assumptions on a periodic basis to determine whether any adjustment to its reserve for these claims is required.

Of the total obligation of $1.0 billion under the 2009 PPG Settlement Arrangement at September 30, 2015 , $765 million is reported as a current liability and $248 million is reported as a non-current liability in the accompanying condensed consolidated balance sheet. The future accretion of the noncurrent portion of the liability will total $71 million and will be reported as expense in the condensed consolidated statement of income over the period 2015 through 2023, as follows (in millions):

Remainder of 2015	$ 4
2016	14
2017 – 2023	53
Total	$ 71

The following table summarizes the impact on PPG's financial statements for the three and nine months ended September 30, 2015 and 2014 resulting from the 2009 PPG Settlement Arrangement, including the change in fair value of the stock to be transferred to the Trust and the equity forward instrument (see Note 13, "Financial Instruments, Hedging Activities and Fair Value Measurements") and the increase in the net present value of the future payments to be made to the Trust:

($ in millions)	Three Months Ended September 30		Nine Months Ended September 30	
Increase (decrease) in expense	2015	2014	2015	2014
Change in fair value:				
PPG stock	$ (75)	$ (18)	$ (78)	$ 10
Equity forward instrument	75	18	76	(11)
Accretion of asbestos liability	3	3	11	10
Asbestos settlement – net expense	$ 3	$ 3	$ 9	$ 9

The fair value of the equity forward instrument is included as an "Other current asset" as of September 30, 2015 and December 31, 2014 in the accompanying condensed consolidated balance sheet. Payments under the fixed payment schedule require annual payments that are due each June. The current portion of the asbestos settlement liability included in the accompanying condensed consolidated balance sheet as of September 30, 2015 consists of all such payments required through June 2016, the fair value of PPG's common stock and the value of PPG's investment in Pittsburgh Corning Europe. The net present value of the remaining payments due is included in the long-term asbestos settlement liability in the accompanying condensed consolidated balance sheet as of September 30, 2015 .

If the funding date was September 30, 2015, following the effective date of the third amended PC plan of reorganization, PPG would be obligated to make aggregate cash payments totaling $505 million and contribute the aggregate fair value of PPG stock and other obligations of, any claim to its equity interest in PC and the stock it owns in Pittsburgh Corning Europe totaling $259 million . Subject to the fixed payment schedule, PPG would be obligated to make further aggregate cash payments totaling $320 million between 2016 and 2023.

Enjoined Claims

If the 2009 PPG Settlement Arrangement is not implemented, for any reason, and the Bankruptcy Court stay expires, PPG intends to defend vigorously the pending and any future asbestos claims, including PC Relationship Claims, asserted against it and its subsidiaries. PPG continues to assert that it is not responsible for any injuries caused by PC products, which it believes account for the vast majority of the pending claims against PPG. Prior to 2000, PPG had never been found liable for any PC-related claims. In numerous cases, PPG was dismissed on motions prior to trial, and in others PPG was released as part of settlements by PC. PPG was found not responsible for PC-related claims at trial in two cases. In January 2000, one jury found PPG, for the first time, partly responsible for injuries to five plaintiffs alleged to be caused by PC products. The plaintiffs holding the judgment on that verdict moved to lift the injunction as applied to their claims. Before the hearing on that motion, PPG entered into a settlement with those claimants in the second quarter of 2010 to avoid the costs and risks associated with the possible lifting of the stay and appeal of the adverse 2000 verdict. The settlement resolved both the motion to lift the injunction and the judgment against PPG. The cost of this settlement was not significant to PPG's results of operations for the second quarter of 2010 and was fully offset by prior insurance recoveries. Although PPG has successfully defended asbestos claims brought against it in the past, in view of the number of claims, and the significant verdicts that other companies have experienced in asbestos litigation, the result of any future litigation of such claims is inherently unpredictable.

Environmental Matters

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. 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; however, any such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized. Management anticipates that the resolution of the Company's environmental contingencies will occur over an extended period of time.

As of September 30, 2015 and December 31, 2014, PPG had reserves for environmental contingencies associated with PPG's former chromium manufacturing plant in Jersey City, N.J. and associated sites ("New Jersey Chrome") and for other environmental contingencies, including National Priority List sites and legacy glass and chemical manufacturing sites. These reserves are reported as "Accounts payable and accrued liabilities" and "Other liabilities" in the accompanying condensed consolidated balance sheet.

Environmental Reserves

($ in millions)	September 30, 2015	December 31, 2014
New Jersey Chrome	$ 148	$ 211
Other contingencies	104	106
Total	$ 252	$ 317
Current portion	$ 76	$ 141

Pretax charges against income for environmental remediation costs are included in "Other charges" in the accompanying condensed consolidated statement of income. The pretax charges and cash outlays related to such environmental remediation for the three and nine months-ended September 30, 2015 and 2014 were as follows:

Pretax charges against income for environmental remediation

	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Legacy glass, chemical and coatings sites	$ 3	$ 138	$ 9	$ 143
Total	$ 3	$ 138	$ 9	$ 143
Cash outlays for environmental spending	$ 18	$ 31	$ 84	$ 106

Remediation: New Jersey Chrome

Since 1990, PPG has remediated 47 of 61 residential and nonresidential sites under the 1990 Administrative Consent Order (“ACO”) with the New Jersey Department of Environmental Protection (“NJDEP”). The most significant of the 14 remaining sites is the former chromium manufacturing location in Jersey City, New Jersey. The principal contaminant of concern is hexavalent chromium. A settlement agreement among PPG, NJDEP and Jersey City (which had asserted claims against PPG for lost tax revenue) was reached in the form of a Judicial Consent Order (the “JCO”) that was entered by the court on June 26, 2009. PPG’s remedial obligations under the ACO were incorporated into the JCO. A new process was established for the review of PPG submitted technical reports for investigation and remedy selection for the 14 ACO sites and an additional six sites, which PPG accepted sole responsibility under the terms of a September 2011 agreement with NJDEP pursuant to the JCO. The JCO also provided for the appointment of a court-approved Site Administrator who was responsible for establishing a master schedule for the remediation of the 20 PPG sites which existed at that time. One site was subsequently removed from the JCO process during 2014 and will be remediated separately at a future date. A total of 19 sites remain subject to the JCO process. The JCO parties established a revised master schedule in 2014 based upon then current knowledge of site conditions and the experience gained since 2011, which was approved by the court, and extended the goal for cleanup of soils and sources of contamination to December 1, 2015. The NJDEP can seek stipulated civil penalties if PPG fails to complete soil and source remediation of JCO sites or perform certain other tasks under the master schedule unless litigation was undertaken to gain access to properties for remediation or by mutual consent of the JCO parties.

Several remedial alternatives were assessed which included, but were not limited to, soil excavation and offsite disposal in a licensed disposal facility, in situ chemical stabilization of soil and groundwater, and in situ solidification of soils. A final draft soil remedial action work plan for the former Garfield Avenue chromium-manufacturing site and five adjacent sites (the “Garfield Avenue Group”) was submitted to NJDEP in May 2012. NJDEP completed a review of the technical aspects of PPG's proposed soil remedial action work plan and expressed its support of the remediation activities identified therein which PPG uses as a basis for the remediation work being performed. PPG is working with NJDEP and Jersey City regarding PPG’s proposed approach to obtain land use limitations, which require property owner consent for the remediated properties and must be implemented before the work plan can be formally approved by NJDEP.

The most significant assumptions underlying the estimate of remediation costs for all New Jersey Chrome sites are those related to the extent and concentration of chromium impacts in the soil, as these determine the quantity of soil that must be treated in place, the quantity that will have to be excavated and transported for offsite disposal, and the nature of disposal required. During the third quarters of 2014 and 2013, PPG completed updated assessments of costs incurred to date versus current progress and the potential cost impacts of the most recent information, including the extent of impacted soils, percentage of hazardous versus non-hazardous soils, daily soil excavation rates, and engineering, administrative and other associated costs. Based on these assessments, reserve adjustments of $136 million and $89 million were recorded in the third quarters of 2014 and 2013, respectively. Principal factors affecting costs included refinements in the estimate of the mix of hazardous to non-hazardous soils to be excavated, an overall increase in soil volumes to be excavated, enhanced water management requirements, decreased daily soil excavation rates due to site conditions, initial estimates for remedial actions related to groundwater, and increased oversight and management costs. The reserve adjustments for the estimated costs to remediate all New Jersey Chrome sites are exclusive of any third party indemnification, as the recovery of any such amounts is uncertain.

PPG has completed all remedial activities at four sites and has received "No Further Action" or equivalent determinations from the NJDEP on these sites. PPG has, or is in the process of, completing soil remedial activities at seven sites by December 1, 2015. Field activities associated with these seven sites are expected to be completed after 2015. Soil remedial and field activities for the remaining eight sites will extend beyond the end of 2015. The master schedule is

undergoing additional revisions to recognize time required to gain access to various properties and to complete remedial actions. This revised schedule is expected to be entered and approved by the court during the fourth quarter of 2015.

PPG's financial reserve for remediation of all New Jersey Chrome sites is $148 million at September 30, 2015. The major cost components of this liability continue to be related to transportation and disposal of impacted soil, as well as construction services. These components each account for approximately 32% and 30% of the accrued amount, respectively. Although the majority of PPG's remedial responsibilities for source removal and soil remediation will be satisfied by the December 1, 2015 deadline under the JCO, there will be remedial activity continuing beyond 2015 at the eight JCO sites and the additional site that was removed from the JCO process. There are also 10 sewer sites for which responsibility is shared jointly between PPG and Honeywell International Inc. and two sites located within a former Exxon Mobil Corporation oil refinery. For the Garfield Avenue group, significant improvements in groundwater conditions have occurred as the result of the removal of the source of the contamination and the addition of chemically treated backfill. The declining contaminant trends that have been observed are expected to continue and ongoing groundwater monitoring will be utilized to develop a final groundwater remedial action work plan which is currently expected to be submitted to NJDEP in 2020. Groundwater remediation at the Garfield Avenue Group is expected to occur over several years after NJDEP's approval of the work plan. Groundwater at the remaining JCO sites or other sites for which PPG has some responsibility is not expected to be a significant issue. There are multiple, future events yet to occur, including further remedy selection and design, remedy implementation and execution and applicable governmental agency or community organization approvals. Considerable uncertainty exists regarding the timing of these future events for the New Jersey Chrome sites. Final resolution of these events is expected to occur over the next several years. As these events occur and to the extent that the cost estimates of the environmental remediation remedies change, the existing reserve for this environmental remediation matter will be adjusted.

Remediation: Other Sites

Among other sites at which PPG is managing environmental liabilities, remedial actions are occurring at a legacy chemical manufacturing site in Barberton, Ohio, where PPG has completed a Facility Investigation and Corrective Measure Study under USEPA's Resource Conservation and Recovery Act Corrective Action Program. PPG has also been addressing the impacts from a legacy plate glass manufacturing site in Kokomo, Indiana under the Voluntary Remediation Program of the Indiana Department of Environmental Management. PPG is currently performing additional investigation activities at this location.

With respect to certain waste sites, the financial condition of 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.

Separation and Merger of the Commodity Chemicals Business

As a result of the commodity chemicals business separation transaction, PPG has retained responsibility for potential environmental liabilities that may result from future Natural Resource Damage claims and any potential tort claims at the Calcasieu River Estuary associated with activities and historical operations of the Lake Charles, La. facility. PPG will additionally retain responsibility for all liabilities relating to, arising out of or resulting from sediment contamination in the Ohio River resulting from historical activities and operations at the Natrium, W.Va. facility, exclusive of remedial activities, if any, required to be performed on-site at the Natrium facility. PPG's obligations with respect to Ohio River sediment will terminate on December 30, 2017 unless within five years from December 30, 2012 PPG is required to further assess or to remediate sediment contamination caused by PPG's operation of the Natrium facility prior to the separation of the commodity chemicals business from PPG in which event PPG's obligations with respect to sediment in the Ohio River will continue for five years beyond the time that PPG is required to further assess or remediate sediment in the Ohio River.

Remediation: Reasonably Possible Matters

In addition to the amounts currently reserved for environmental remediation, the Company may be subject to loss contingencies related to environmental matters estimated to be as much as $75 million to $200 million . Such unreserved losses are reasonably possible but are not currently considered to be probable of occurrence. These reasonably possible unreserved losses relate to environmental matters at a number of sites. The loss contingencies related to these sites include significant unresolved issues such as the nature and extent of contamination at these sites and the methods that may have to be employed to remediate them.

The impact of evolving programs, such as natural resource damage claims, industrial site re-use initiatives and domestic and international 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, and the potential for technological and regulatory developments.

Other Matters

The Company had outstanding letters of credit and surety bonds of $166 million and guarantees of $23 million as of September 30, 2015 . The Company does not believe any loss related to such guarantees is likely.

16. Reportable Business Segment Information

PPG is a multinational manufacturer with 11 operating segments that are organized based on the Company's major product lines. These operating segments are also the Company's reporting units for purposes of testing goodwill for impairment. The operating segments have been aggregated based on economic similarities, the nature of their products, production processes, end-use markets and methods of distribution into three reportable business segments.

The Performance Coatings reportable segment is comprised of the refinish, aerospace, architectural coatings – Americas and Asia Pacific, architectural coatings - EMEA, and protective and marine coatings operating segments. This reportable segment primarily supplies a variety of protective and decorative coatings, sealants and finishes along with paint strippers, stains and related chemicals, as well as transparencies and transparent armor.

The Industrial Coatings reportable segment is comprised of the automotive original equipment manufacturer ("OEM") coatings, industrial coatings, packaging coatings, and the specialty coatings and materials operating segments. This reportable segment primarily supplies a variety of protective and decorative coatings and finishes along with adhesives, sealants, metal pretreatment products, optical monomers and coatings, precipitated silicas, *Teslin*® and other specialty materials.

The Glass reportable segment is comprised of the flat glass and fiber glass operating segments. This reportable segment primarily supplies flat glass and continuous-strand fiber glass products.

Reportable segment net sales and segment income for the three and nine months ended September 30, 2015 and 2014 were as follows:

	Three Months Ended September 30		Nine Months Ended September 30	
($ in millions)	2015	2014	2015	2014
Net sales:				
Performance Coatings	$ 2,240	$ 2,257	$ 6,705	$ 6,607
Industrial Coatings	1,354	1,395	4,105	4,208
Glass	278	283	824	838
Total	$ 3,872	$ 3,935	$ 11,634	$ 11,653
Segment income:				
Performance Coatings	$ 379	$ 345	$ 1,052	$ 966
Industrial Coatings	241	240	745	728
Glass	32	33	99	48
Total	652	618	1,896	1,742
Interest expense, net of interest income	(21)	(34)	(63)	(104)
Transaction-related costs (a)	(1)	(4)	(31)	(10)
Business restructuring	—	—	(140)	—
Legacy items (b)	(14)	(25)	(32)	(46)
Corporate	(35)	(56)	(167)	(187)
Income from continuing operations before income taxes	$ 581	$ 499	$ 1,463	$ 1,395

(a) Transaction-related costs include advisory, legal, accounting, valuation and other professional or consulting fees incurred to effect significant acquisitions, as well as similar fees and other costs to effect disposals not classified as discontinued operations. These costs also include the flow-through cost of sales of the step up to fair value of inventory acquired in acquisitions.

(b) Legacy items include current costs related to former operations of the Company, including pension and other postretirement benefit costs, certain charges for legal matters and environmental remediation costs, and certain charges which are considered to be unusual or nonrecurring, including the earnings impact of the proposed asbestos settlement. Legacy items also include equity earnings from PPG's approximate 38% investment in the former automotive glass and services business.

The expense for the three and nine months ended September 30, 2015 also includes a pretax charge of $7 million for the settlement losses related to certain legacy Canadian glass pension plans.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

Discontinued Operations

In March 2014, the Company completed the sale of its 51% ownership interest in its Transitions Optical joint venture and 100% of its sunlens business to Essilor International (Compagnie Generale D'Optique) SA ("Essilor") . The results of operations and cash flows of these businesses for the 2014 period prior to the sale and the net gain on the sale are reported as results from discontinued operations for the nine months ended September 30, 2014.

See Note 3, "Acquisitions and Dispositions" in Item 1 - Financial Statements, for additional information relating to this transaction.

Performance in the Third Quarter of 2015 Compared to the Third Quarter of 2014

Performance Overview

Net sales decreased $63 million , or approximately 2% from the third quarter of 2014, to $3,872 million primarily due to unfavorable foreign currency translation (8%) and lower sales volume (1%), partly offset by sales from acquired businesses (7%). Acquired businesses added $256 million of sales in the third quarter of 2015, primarily due to sales of Consorcio Comex, S.A. de C.V. ("Comex"), which we acquired in the fourth quarter of 2014, supplemented by several other smaller acquisitions made in the last quarter of 2014 and the first nine months of 2015. Foreign currency translation negatively impacted sales by approximately $310 million (8%) and segment income by approximately $45 million (7%), as the U.S. dollar strengthened against most other currencies versus the prior year, including an appreciation of approximately 16% year-over-year versus the three month average Euro exchange rate.

Sales volumes declined less than 1% during the third quarter of 2015 compared to the third quarter of 2014 when sales volume growth was 3%. The volume decline in the third quarter of 2015 reflects moderation of global economic growth and transitory customer inventory management. Performance Coatings sales volumes declined with lower architectural coatings demand due to a weaker Canadian economy and inventory management by most U.S. and Canadian national retail customers as we approached the end of a modest architectural painting season. The Industrial Coatings segment's sales volumes were higher, supported by automotive OEM coatings and packaging coatings sales volume improvement in all major regions, partly offset by general industrial coatings demand which declined slightly, similar to the prior sequential quarter. Glass sales volumes, excluding the effects of the prior year divestiture of a flat glass facility, increased by a mid-single-digit percentage year-over-year.

Regionally, year-over-year Europe, Middle East and Africa (EMEA) sales volumes advanced 2% with growth trends slightly ahead of the previous quarter as PPG's businesses continue to experience broader, incremental improvement in that region. Overall demand remained uneven within the region, with growth in certain countries and end-use markets offset by weakness in others. From an end-use market perspective, the automotive OEM coatings, automotive refinish coatings, protective and marine coatings and packaging coatings businesses delivered the largest year-over-year gains. Sales volumes in emerging regions grew approximately 1% in the third quarter of 2015 versus the prior year, in line with the second quarter growth rates. Year-over-year volumes grew in Asia, with Chinese volumes remaining positive despite softness and customer inventory management early in the quarter, followed by demand improvement later in the quarter. South American demand weakened in comparison to the prior sequential quarter and year-over-year. Sales volumes declined 3% in the U.S. and Canadian markets year-over-year, as a weaker Canadian economy and customer inventory management drove lower architectural coatings demand. The year-over-year decline in architectural coatings sales volume was partly offset by growth in the automotive OEM coatings, packaging coatings and fiber glass businesses.

Cost of sales, exclusive of depreciation and amortization, decreased $79 million , or 4% from the third quarter of 2014, to $2,150 million primarily due to favorable foreign currency translation and lower manufacturing costs which more than offset the inclusion of cost of sales from acquired businesses. Cost of sales as a percentage of sales was 56% and 57% in the third quarters of 2015 and 2014, respectively.

Selling, general and administrative expenses decreased $51 million , or 5% from the third quarter of 2014, to $890 million primarily due to favorable foreign currency translation and cost management actions, partly offset by increased costs related to acquisitions and overhead cost inflation. Selling, general and administrative expenses as a percentage of sales was 23% and 24% in the third quarters of 2015 and 2014, respectively.

Interest expense, net of Interest income decreased $13 million , or 38% from the third quarter of 2014, to $21 million largely as a result of a debt refinancing undertaken in the fourth quarter of 2014.

Other charges decreased $127 million from the third quarter of 2014 to $23 million primarily due to the absence of a $138 million environmental remediation charge in the third quarter of 2014 principally related to ongoing remediation efforts at PPG's former chromium manufacturing plant in Jersey City, N.J.

Other income decreased $120 million from the third quarter of 2014 to $40 million primarily due to the absence of a gain on the divestiture of a flat glass facility of $22 million and PPG's share of earnings from the sale of an equity affiliate's business of $94 million recorded in the third quarter of 2014.

The reported effective tax rate on pretax income from continuing operations for the quarters ended September 30, 2015 and 2014 was 24.4% and 23.2% , respectively. Excluding certain nonrecurring items, we expect our full year adjusted 2015 effective tax rate on pretax income from continuing operations to be in the range of 24.0% to 25.0%. Because of the differences in the tax rates in the countries in which we operate, a shift in the geographic mix of income from continuing operations before income taxes will impact our overall ongoing tax rate. See the Regulation G reconciliation below for details of PPG's adjusted effective tax rate from continuing operations.

Reported diluted earnings-per-share from continuing operations for the three months ended September 30, 2015 and 2014 was $1.59 and $1.35 , respectively. The 2015 diluted earnings-per-share from continuing operations includes the impact of a pension settlement charge and transaction-related costs totaling $0.02 ($6 million, after-tax) per diluted share. The 2014 diluted earnings-per-share from continuing operations includes gains from asset dispositions of $0.26, as well as the impacts of increases to environmental reserves of $0.30, a pension settlement charge and transaction-related costs totaling $0.02 ($4 million, after-tax) per diluted share. Excluding the effects of these nonrecurring items, diluted earnings-per-share reflected the benefits from prior cash deployment, including acquisitions and PPG share repurchases in the second half of 2014, as well as the 4.5 million shares of PPG stock repurchased during 2015, and lower interest expense as a result of the debt refinancing completed during the fourth quarter of 2014, partially offset by unfavorable foreign currency.

Looking ahead, we anticipate a resumption of sales volume growth in the fourth quarter supported by continued global economic expansion, the absence of customer inventory management and the benefit of including Comex in our organic growth figures following the acquisition’s first anniversary. Additionally, we continue to have a variety of PPG specific net income drivers that are not directly tied to the pace of the economy. These include the benefits of our previously announced restructuring actions, attainment of the remaining synergies from the ongoing integration of our acquisitions, and the ongoing effects of our continued cash deployment. Also, we will continue to proactively manage our cost structure to meet current demand trends. Further, based on current foreign exchange rates and our business seasonality, we expect the negative impact of foreign currency translation to moderate somewhat in the fourth quarter.

Regulation G Reconciliation – Results from Operations

PPG believes investors’ understanding of the Company’s operating performance is enhanced by the disclosure of net income before income taxes, PPG's effective income tax rate, tax expense, net income from continuing operations and earnings per diluted share adjusted for nonrecurring items. PPG’s management considers this information useful in providing insight into the company’s ongoing operating performance because it excludes the impact of items that cannot reasonably be expected to recur on an ongoing basis. Income before income taxes, the effective tax rate, tax expense, net income from continuing operations and earnings per diluted share adjusted for these items are not recognized financial measures determined in accordance with U.S. generally accepted accounting principles ("U.S. GAAP") and should not be considered a substitute for income before income taxes, the effective tax rate, tax expense, net income from continuing operations or earnings per diluted share or other financial measures as computed in accordance with U.S. GAAP. In addition, adjusted income before income taxes, adjusted effective tax rate, adjusted tax expense, adjusted net income from continuing operations and adjusted earnings per diluted share from continuing operations may not be comparable to similarly titled measures as reported by other companies.

The effective tax rate from continuing operations is reconciled to the adjusted effective tax rate from continuing operations below:

Three months ended September 30, 2015			
($ in millions, except percentages)	**Income Before Income Taxes**	**Tax Expense**	**Effective Tax Rate**
Effective tax rate, continuing operations	$ 581	$ 142	24.4%
Includes:			
Pension plan settlement charge	7	2	26.7%
Transaction-related costs	1	—	33.1%
Adjusted effective tax rate, continuing operations	$ 589	$ 144	24.5%

Three months ended September 30, 2014			
($ in millions, except percentages)	**Income Before Income Taxes**	**Tax Expense**	**Effective Tax Rate**
Effective tax rate, continuing operations	$ 499	$ 116	23.2%
Includes:			
Gain on asset dispositions	(116)	(43)	37.6%
Increases to legacy environmental reserves	138	52	37.6%
Pension plan settlement charge	2	—	26.7%
Transaction-related costs	4	2	37.6%
Adjusted effective tax rate, continuing operations	$ 527	$ 127	24.0%

Net income (attributable to PPG) and earnings-per-share – assuming dilution (attributable to PPG) are reconciled to adjusted net income (attributable to PPG) and adjusted earnings-per-share – assuming dilution below:

Three months ended September 30, 2015	**Continuing Operations**	
($ in millions, except per share amounts)	**Net Income**	**EPS**
Net income (attributable to PPG)	$ 433	$ 1.59
Net income (attributable to PPG) includes (after-tax):		
Pension plan settlement charge	5	0.02
Transaction-related costs	1	—
Adjusted net income	$ 439	$ 1.61

Three months ended September 30, 2014	**Continuing Operations**	
($ in millions, except per share amounts)	**Net Income**	**EPS**
Net income (attributable to PPG)	$ 377	$ 1.35
Net income (attributable to PPG) includes (after-tax):		
Gain on asset dispositions	(73)	(0.26)
Increases to legacy environmental reserves	86	0.30
Pension plan settlement charge	2	0.01
Transaction-related costs	2	0.01
Adjusted net income	$ 394	$ 1.41

Performance of Reportable Business Segments

Performance Coatings

Performance Coatings net sales decreased $17 million , or 1% from the third quarter of 2014, to $2,240 million . The effect of unfavorable foreign currency translation reduced net sales by approximately $190 million, or about 8% versus the prior year period. Sales from acquired businesses, including Comex and several smaller acquisitions, increased segment sales by approximately $210 million or about 10%. From a year over year perspective, Comex organic sales growth remained strong but was partially mitigated by unfavorable foreign currency translation caused by the impact of a weaker Mexican peso versus the U.S. dollar. Segment sales volumes decreased by 3% , and selling prices were modestly higher versus the third quarter of 2014.

During the third quarter of 2015, organic sales volume growth continued in aerospace coatings and automotive refinish coatings, aided by growing market demand and continued customer adoption of innovative PPG technologies. Global protective and marine coatings sales volumes increased slightly year-over-year, led by higher protective coatings demand in Asia and Europe, partially offset by lower marine coatings demand in Asia. Demand in South America was weak, consistent with prior quarters. U.S. and Canadian demand was mixed with certain protective coatings sales volume gains offset by weakness in the energy sub-sector.

Architectural coatings - EMEA organic sales were flat in the third quarter of 2015 in comparison to the prior year period. Demand trends varied throughout the region with modest growth in certain countries like the U.K. while other countries, including France, experienced lower demand.

The architectural coatings - Americas and Asia Pacific business experienced a high-single-digit percentage volume decline in the third quarter of 2015 versus the third quarter of 2014, stemming from a weaker Canadian economy and from transitory inventory management by most national retail customers and independent dealers. This negative inventory impact was the result of lower than anticipated industry growth due to unfavorable weather-related painting conditions earlier in the 2015 paint season.

Third quarter segment income increased $34 million , or 10% from the third quarter of 2014, to $379 million aided by acquisitions and lower manufacturing costs, partly offset by unfavorable foreign currency translation of about $25 million.

Looking forward to the fourth quarter of 2015, we anticipate lower segment sales sequentially due to normal seasonal trends for the Performance Coatings segment with little-to-no additional customer inventory management. We expect organic sales growth in the fourth quarter of 2015 for aerospace coatings and automotive refinish coatings, as well as incremental sales from the recent Cuming Microwave and the Le Joint Francais acquisitions. For the fourth quarter of 2015, we anticipate global sales growth trends in local currencies similar to the third quarter of 2015 for the protective and marine coatings business. In addition, sales synergies from the Comex acquisition will benefit protective and marine coatings growth going forward. The mixed country trends in architectural coatings - EMEA are expected to remain in the fourth quarter of 2015; however, we anticipate modest overall sales volume growth. For the fourth quarter, we expect a low-to-mid single digit percentage sales volume growth rate for the North American architectural coatings industry with minimal-to-no PPG impact from further customer inventory management. Acquisition-related net sales for the fourth quarter of 2015 are anticipated in the range of $100 million to $120 million. Beginning in November, the Comex acquisition will reach it's first anniversary and the business results will positively impact organic growth. Comex-related cost and sales synergies will continue to positively impact segment sales and income in the fourth quarter of 2015.

Finally, based on current exchange rates, we expect foreign currency translation will have a smaller unfavorable absolute dollar impact in the fourth quarter of 2015 given the traditionally lower seasonal quarterly sales and segment income. Further, the Euro to U.S. dollar exchange rate accelerated its decline during the fourth quarter of 2014.

Industrial Coatings

Industrial Coatings segment net sales decreased $41 million , or 3% from the third quarter of 2014, to $1,354 million . Segment sales volumes grew 2% year-over-year, led by EMEA. The sales volume growth was more than offset by unfavorable foreign currency translation which impacted segment sales by about $110 million , or 8% year-over-year. Segment net sales in local currencies were up 5%, including approximately $55 million from acquisition-related sales.

PPG’s global automotive OEM coatings business achieved sales growth in all major regions, with an aggregate business unit growth rate of a mid-single-digit percentage year-over-year. In comparison, global auto industry production grew about 1% in the third quarter of 2015. PPG growth was led by strengthening European demand and continued strong demand in the U.S. PPG volume in Asia was also positive despite declining industry production rates in China. In

addition, the Revocoat acquisition which closed earlier this year contributed to the automotive OEM coatings business sales growth in the third quarter.

Packaging coatings global sales volumes were up a mid-to-high-single-digit percentage year-over-year, with growth in all major regions, consistent with the prior sequential quarter. Sales growth benefited from initial industry adoption of PPG's new internal can coatings technologies and was consistently favorable across most product lines.

During the third quarter of 2015, aggregate year-over-year sales volumes declined a low-single-digit percentage in PPG's general industrial coatings and specialty coatings and materials businesses. Volume growth was mixed across various end-use markets and regions year-over-year. Weakening demand in certain industrial production sub-sectors negatively impacted overall customer demand in all regions. However, growth occurred in certain end-use markets, including auto parts and accessories and electronics. Demand weakness continued in heavy-duty equipment.

Third quarter segment income increased $1 million from the third quarter of 2014, to $241 million aided by acquisitions and the earnings impact of sales volume growth, offset by unfavorable foreign currency translation of about $15 million.

Looking ahead to the fourth quarter, we anticipate packaging coatings sales growth to continue despite a tougher comparison period due to initial customer inventory builds of new PPG internal can coating technology products in the prior year. We expect overall general industrial coatings demand to be flat-to-modestly up in the fourth quarter of 2015. We also expect global automotive industry production to grow in all major regions during the fourth quarter of 2015, including a return to modest growth in China.

The Industrial Coatings segment is our most geographically diverse segment with fairly balanced sales in the U.S., EMEA and Asia-Pacific regions. We expect foreign currency translation, primarily Euro-related, will have a somewhat smaller unfavorable impact on year-over-year sales in the fourth quarter of 2015 versus the third quarter as foreign currency exchange rates weakened significantly versus the U.S. dollar in the fourth quarter of 2014.

Glass

Glass segment net sales decreased $5 million , or 2% from the third quarter of 2014 to $278 million primarily due to unfavorable foreign currency translation of approximately $10 million or 3% and lower sales stemming from the divestiture of a flat glass facility in 2014 (5%), partially offset by higher selling prices in both businesses and higher sales volumes (3%), excluding the impact of the 2014 flat glass facility divestiture.

Flat glass sales volumes were comparable with the prior year as increased market demand was offset by lower sales due to an unplanned facility outage which resulted in a force majeure declaration. Although sales volumes were flat year-over-year, product mix was positive due to a portfolio shift toward value-added and specialty glass products following the 2014 flat glass facility divestiture.

Fiber glass sales volumes increased a mid-single-digit percentage year-over-year led by improving end-customer demand in the U.S. Higher selling prices were driven by increased market demand.

Third quarter segment income decreased $1 million from the third quarter of 2014 to $32 million primarily due to unplanned facility outage related expenses and repair costs, as well as unfavorable foreign currency of approximately $5 million. Higher pricing, positive flat glass sales mix, lower manufacturing costs stemming from the 2014 flat glass facility divestiture and a strong focus on cost management offset the higher expense.

Looking ahead to the fourth quarter, we expect pricing and demand growth to remain consistent with the third quarter for both glass businesses with lower segment sales due to normal business seasonality. The positive product mix and lower manufacturing costs related to the 2014 flat glass facility divestiture should continue to improve flat glass margins. We also expect smaller unfavorable foreign currency related-impacts to sales and segment income sequentially in the fourth quarter as foreign exchange rates weakened significantly versus the U.S. dollar in the fourth quarter of 2014.

Performance for the First Nine Months of 2015 Compared to the First Nine Months of 2014

Performance Overview

Net sales decreased $19 million from the first nine months of 2014, to $11,634 million primarily due to unfavorable foreign currency translation (8%) offset by sales from acquired businesses (6%) and higher sales volumes (1%). Acquired businesses added $756 million of sales in 2015, primarily due to Comex, supplemented by several other smaller acquisitions made in 2014 and the first nine months of 2015. Sales volume growth was modest during the first nine months of 2015 compared to the first nine months of 2014 where volume growth was 3%. The sales volume growth in 2015 was driven primarily by PPG's automotive OEM coatings, packaging coatings and automotive refinish coatings businesses. The sales volume growth occurred in the emerging regions and EMEA, while North America sales volumes declined less than 1%. Foreign currency translation unfavorably impacted sales by $887 million and segment income by $103 million (6%), as the U.S. dollar strengthened against most other currencies versus the prior year.

Cost of sales, exclusive of depreciation and amortization, decreased $128 million , or 2% from the first nine months of 2014, to $6,498 million primarily due to favorable foreign currency translation and lower manufacturing costs partially offset by the inclusion of cost of sales from acquired businesses and the impact of higher sales volumes. Cost of sales as a percentage of sales improved to 56% in the first nine months of 2015 compared with 57% in the first nine months of 2014.

Selling, general and administrative expenses decreased $69 million , or 2% from the nine months of 2014, to $2,757 million primarily due to favorable foreign currency translation, partly offset by acquisition-related costs and overhead cost inflation. Selling, general and administrative expenses as a percentage of sales was 24% in the first nine months of 2015 and 2014.

Interest expense, net of Interest income decreased $41 million , or 39% from the first nine months of 2014, to $63 million as a result of the debt refinancing undertaken in the fourth quarter of 2014.

Other charges decreased $108 million from the first nine months of 2014 to $82 million primarily due to the absence of a $138 million environmental remediation charge in the third quarter of 2014 principally related to ongoing remediation efforts at PPG's former chromium manufacturing plant in Jersey City, N.J.

Other income decreased $107 million from the first nine months of 2014 to $109 million primarily due to the absence of a gain on the divestiture of a flat glass facility of $22 million and PPG's share of earnings from the sale of an equity affiliate's business of $94 million recorded in the third quarter of 2014.

In April 2015, PPG approved a business restructuring program which includes actions necessary to achieve cost synergies related to recent acquisitions. In addition, the program aims to further align employee levels and production capacity in certain businesses and regions based on current product demand, as well as reductions in various global administrative functions. A pretax restructuring charge of $140 million was recorded in the second quarter of 2015, of which about 85% represents employee severance and other cash charges. PPG expects these restructuring actions will result in full year, pretax savings of $100 million to $105 million by year 2017, including 2015 partial year savings of $15 million to $20 million.

The reported effective tax rate on pretax income from continuing operations for the nine months ended September 30, 2015 and 2014 was 24.3% and 23.7% , respectively. Excluding certain nonrecurring items, we expect our full year adjusted 2015 effective tax rate on pretax income from continuing operations to be in the range of 24.0% to 25.0%. Because of the differences in the tax rates in the countries in which we operate, a shift in the geographic mix of income from continuing operations before income taxes will impact our overall ongoing tax rate. See the Regulation G reconciliation below for details of PPG's adjusted effective tax rate from continuing operations.

Reported diluted earnings-per-share from continuing operations for the nine months ended September 30, 2015 and 2014 was $3.97 and $3.74 , respectively. The 2015 diluted earnings-per-share from continuing operations includes the impact of a business restructuring charge taken during the first nine months of 2015 of $0.39, transaction-related costs of $0.07 and a pension settlement charge of $0.02. The 2014 diluted earnings per share included gains on asset dispositions of ($0.26), offset by increases to legacy environmental reserves of $0.30. Excluding the effects of these nonrecurring items, the diluted earnings-per-share from continuing operations reflected the benefits from prior cash deployment, including acquisitions, and PPG share repurchases in the second-half of 2014, as well as the 4.5 million shares of stock repurchased during 2015, and lower interest expense as a result of the debt refinancing completed during the fourth quarter of 2014, partly offset by unfavorable foreign currency.

Regulation G Reconciliation – Results from Operations

Refer to the "Performance in the Third Quarter of 2015 Compared to the Third Quarter of 2014" section of Managements Discussion and Analysis of Financial Condition and Results of Operations for information about our use of non-GAAP financial measures.

The effective tax rate from continuing operations is reconciled to the adjusted effective tax rate from continuing operations below:

Nine months ended September 30, 2015			
($ in millions, except percentages)	**Income Before Income Taxes**	**Tax Expense**	**Effective Tax Rate**
Effective tax rate, continuing operations	$ 1,463	$ 356	24.3%
Includes:			
Business restructuring	140	34	24.3%
Pension settlement charge	7	2	26.7%
Transaction-related costs	31	10	32.3%
Adjusted effective tax rate, continuing operations	$ 1,641	$ 402	24.5%

Nine months ended September 30, 2014			
($ in millions, except percentages)	**Income Before Income Taxes**	**Tax Expense**	**Effective Tax Rate**
Effective tax rate, continuing operations	$ 1,395	$ 330	23.7%
Includes:			
Gain on asset dispositions	(116)	(43)	37.1%
Increase to legacy environmental reserves	138	52	37.7%
Pension plan settlement charges	7	2	28.6%
Transaction-related costs	10	4	40.0%
Adjusted effective tax rate, continuing operations	$ 1,434	$ 345	24.1%

Net income (attributable to PPG) and earnings-per-share – assuming dilution (attributable to PPG) are reconciled to adjusted net income (attributable to PPG) and adjusted earnings-per-share – assuming dilution below:

Nine months ended September 30, 2015	**Continuing Operations**	
($ in millions, except per share amounts)	**Net Income**	**EPS**
Net income (attributable to PPG)	$ 1,091	$ 3.97
Net income (attributable to PPG) includes (after-tax):		
Business restructuring	106	0.39
Transaction-related costs	21	0.07
Pension settlement charge	5	0.02
Adjusted net income	$ 1,223	$ 4.45

Nine months ended September 30, 2014	**Continuing Operations**	
($ in millions, except per share amounts)	**Net Income**	**EPS**
Net income (attributable to PPG)	$ 1,047	$ 3.74
Net income (attributable to PPG) includes (after-tax):		
Gain on asset dispositions	(73)	(0.26)
Increase to legacy environmental reserves	86	0.30
Pension plan settlement charges	5	0.02
Transaction-related costs	6	0.02
Adjusted net income	$ 1,071	$ 3.82

Performance of Reportable Business Segments

Performance Coatings

Performance Coatings net sales increased $98 million , or 1% from the first nine months of 2014, to $6,705 million primarily due to sales from acquired businesses, largely Comex. The effect of unfavorable foreign currency translation reduced net sales by $546 million , or about 8% versus the prior year period. Segment sales volumes declined 1%, and selling prices were modestly higher for the first nine months of 2015 versus the comparable prior year period.

During the first nine months of 2015, organic sales growth continued in aerospace coatings, aided by increased end-use market demand, but moderated versus the prior period reflecting the strong growth the business has delivered the past several years. Automotive refinish coatings sales volume growth was up versus the prior year period, with solid growth trends in the U.S. and Canada.

Aggregate protective and marine coatings net sales volumes were slightly higher year-over-year. Sales for the business increased due to acquisition-related sales synergies from the Comex acquisition offset by unfavorable foreign currency translation.

Architectural coatings - EMEA sales volumes declined 1% in the first nine months of 2015 versus the comparable prior year period. Demand was inconsistent throughout the region with modest growth continuing in certain countries, including the U.K., while several other countries experienced lower demand, including France.

Excluding acquisitions, architectural coatings - Americas and Asia Pacific net sales were lower versus the first nine months of 2014. The year-over-year sales comparison was negatively impacted in the U.S. and Canada by several new PPG product pipeline fills at major customers in the previous year, as well as customer inventory management by most U.S. and Canadian retail customers and independent dealers at the end of a modest paint season.

In the first nine months of 2015, organic sales growth in the recently acquired Comex architectural coatings business was a high-single-digit percentage, but was partially mitigated by unfavorable foreign currency translation caused by the impact of a weaker Mexican peso versus the U.S. dollar.

Segment income increased $86 million , or 9% from the first nine months of 2014, to $1,052 million primarily due to higher net sales from acquired businesses partially offset by unfavorable foreign currency translation and lower sales volumes.

Industrial Coatings

Industrial Coatings segment net sales decreased $103 million , or 2% from the first nine months of 2014, to $4,105 million . Segment sales volumes grew 3% year-over-year, with growth in all regions, led by Asia-Pacific and EMEA. The strong sales volume growth was more than offset by unfavorable foreign currency translation which impacted segment sales by $308 million , or 7% year-over-year.

PPG's global automotive OEM coatings business achieved sales volume growth in all regions, with an aggregate business unit growth rate of a high-mid-single-digit percentage year-over-year in comparison with the global auto industry production growth rate of a low-single-digit percentage. PPG sales volume growth was led by strong European and Chinese demand.

During the first nine months of 2015, sales volumes declined modestly in PPG's general industrial coatings and specialty coatings and materials businesses in comparison to strong volume growth in the prior year period. Demand was mixed across various end-use markets and regions.

Global packaging coatings sales volumes were up a high-mid-single-digit percentage versus the first nine months of 2014, aided by new product introductions and continued emerging region growth.

Segment income for the nine months ended September 30, 2015 increased $17 million , or 2% from the first nine months of 2014, to $745 million primarily due to increased sales volumes and manufacturing cost improvements offset by unfavorable foreign currency translation.

Glass

Glass segment net sales decreased $14 million , or 2% from the first nine months of 2014, to $824 million due to unfavorable foreign currency translation (4%) and lower sales stemming from a 2014 flat glass facility divestiture (5%), partly offset by higher selling prices and higher sales volumes (3%), excluding the impact of our 2014 flat glass facility divestiture.

Flat glass sales grew modestly year-over-year aided by continued strong non-residential construction demand and improved pricing. Additionally, product mix was favorable from higher value-added and specialty glass stemming from end-use market growth coupled with an internal product mix shift related to the 2014 facility divestiture.

Fiber glass sales volumes increased a low-single-digit percentage in both the European and the U.S. markets versus the first nine months of 2014. Selling prices improved modestly year-over-year in the U.S. and Europe.

Segment income increased $51 million from the first nine months of 2014, to $99 million primarily due to favorable flat glass product mix and lower manufacturing costs stemming from the reduction in PPG's system-wide flat glass capacity coupled with ongoing cost management. Segment income was partially offset by modest unfavorable foreign currency translation of $5 million and higher pension costs.

Liquidity and Capital Resources

PPG had cash and short-term investments totaling approximately $1.4 billion and $1.2 billion at September 30, 2015 and December 31, 2014 , respectively.

Cash from operating activities - continuing operations for the nine months ended September 30, 2015 and 2014 was $986 million and $1,244 million , respectively. Cash flow compared with prior year decreased primarily due to the higher voluntary and mandatory pension contributions ($274 million).

In June 2015, PPG's €300 million notes matured, and PPG paid $336 million to settle these obligations. Also in June 2015, PPG received $18 million in proceeds from the settlement of certain economic hedges.

In March 2015, PPG completed a public offering of €600 million of 0.875% Notes due 2022 and €600 million of 1.400% Notes due 2027. These notes were issued pursuant to PPG's existing shelf registration statement. The aggregate cash proceeds from the notes, net of discounts and fees, was approximately $1.24 billion. The proceeds were used to repay outstanding borrowings and for general corporate purposes. Refer to Note 7, "Borrowings" for more information regarding these notes.

Other uses of cash during the nine months ended September 30, 2015 included:

- Capital expenditures, excluding acquisitions, of $266 million , or about 2% of sales.
- Voluntary contributions to PPG's U.S. and non-U.S. pension plans of $250 million and $21 million, respectively.
- Mandatory contributions to PPG's non-U.S. pension plans of $15 million.
- Cash dividends paid totaled $287 million .
- Cash spent on share repurchases totaled $501 million.

On April 16, 2015, the PPG Board of Directors approved a 2-for-1 split of the Company's common stock for all shareholders. The record date for the split was the close of business on May 11, 2015 and the additional shares were distributed on June 12, 2015. Each shareholder as of the date of record received one additional share of common stock for each share held. Historical per share and share data (except for shares on the balance sheet) in this Form 10-Q give retroactive effect to the stock split. These reclassifications had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

Total capital spending in 2015 is expected to be approximately 3.0% of full year sales which is lower than the previously communicated range of 3.5% to 4.0%. Also, PPG expects to make mandatory contributions to its non-U.S. pension plans in the fourth quarter of 2015 in the range of $5 million to $10 million.

We believe that our cash on hand and short term investments, cash from operations and the Company’s available borrowing capacity will continue to be sufficient to fund operating activities, capital spending, including acquisitions, dividend payments, debt service, amounts due under the proposed asbestos settlement, share repurchases and contributions to pension plans. We intend to deploy our cash in a timely, disciplined manner with a continued emphasis on incremental earnings accretive initiatives, including additional acquisitions and share repurchases. The Company expects to deploy cash for business acquisitions and share repurchases of between $2 billion and $2.5 billion for years 2015 and 2016 combined, which is an increase from our previous forecast of $1.5 billion to $2.5 billion.

The ratio of total debt, including capital leases, to total debt and PPG shareholders’ equity was 47% at September 30, 2015 and 44% at December 31, 2014 .

Operating Working Capital is a subset of total working capital and represents (1) trade receivables – net of the allowance for doubtful accounts, (2) inventories and (3) trade liabilities. We believe Operating Working Capital represents the key components of working capital under the operating control of our businesses. A key metric we use to measure improvement in our working capital management is Operating Working Capital as a percentage of sales (current quarter sales annualized).

($ in millions, except percentages)	September 30, 2015	December 31, 2014	September 30, 2014
Trade Receivables, Net	$ 2,713	$ 2,366	$ 2,622
Inventories, FIFO	2,013	2,007	2,086
Trade Creditors' Liabilities	2,048	1,919	1,954
Operating Working Capital	$ 2,678	$ 2,454	$ 2,754
Operating Working Capital as a % of Sales	17.3%	16.5%	17.5%

Days sales outstanding at September 30, 2015 was 58 days, which is 4 days higher than days sales outstanding at December 31, 2014 . Day sales outstanding as of September 30, 2014 was 55 days.

Currency

From December 31, 2014 to September 30, 2015 , the U.S. dollar strengthened against most of the currencies in the countries in which PPG operates. As a result, consolidated net assets at September 30, 2015 decreased by $591 million , compared to December 31, 2014 . Comparing exchange rates during the first nine months of 2015 to those of the first nine months of 2014, the U.S. dollar was stronger than the currencies of most countries in which PPG operates, which had an unfavorable impact on pretax income from continuing operations for the nine months-ended September 30, 2015 of $102 million from the translation of these foreign earnings into U.S. dollars.

New Accounting Standards

See Note 2, "New Accounting Standards," to the accompanying condensed consolidated financial statements for further details on recently issued accounting guidance.

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 Part II, Item 1, "Legal Proceedings" of this Form 10-Q and Note 15, "Commitments and Contingent Liabilities," to the accompanying condensed consolidated financial statements for a description of certain of these lawsuits, including a description of the proposed asbestos settlement.

As discussed in Part II, Item 1 and Note 15, 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 proposed asbestos settlement described in Note 15 does not become effective, will not have a material effect on PPG's consolidated financial position or liquidity; however, any such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized.

As also discussed in Note 15, PPG has significant reserves for environmental contingencies. Please refer to the Environmental Matters section of Note 15 for details of these reserves. A significant portion of our reserves for environmental contingencies relate to ongoing remediation at PPG's former chromium manufacturing plant in Jersey City, N.J. and associated sites ("New Jersey Chrome"). The Company continues to analyze, assess and remediate the environmental issues associated with New Jersey Chrome. Information will continue to be generated from the ongoing groundwater remedial investigation activities related to New Jersey Chrome and will be incorporated into a final draft remedial action work plan for groundwater expected to be submitted to the New Jersey Department of Environmental Protection in 2020.

It is possible that technological, regulatory and enforcement developments, the results of environmental studies and other factors could alter the Company's expectations with respect to future charges against income and future cash outlays. Specifically, the level of expected future remediation costs and cash outlays is highly dependent upon activity related to New Jersey Chrome.

Cash outlays related to all environmental remediation were $18 million and $84 million for the three and nine months ended September 30, 2015 , respectively, and were $31 million and $106 million for the three and nine months ended September 30, 2014, respectively. Management expects cash outlays for environmental remediation costs to range

from $15 million to $25 million for the remainder of 2015, $40 million to $60 million in 2016 and $25 million to $45 million annually from 2017 through 2019.

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 Quarterly Report contain forward-looking statements that reflect the Company's current views with respect to future events and financial performance.

You can identify forward-looking statements by the fact that they do not relate strictly to current or historic facts. Forward-looking statements are identified by the use of the words "aim," "believe," "expect," "anticipate," "intend," "estimate," "project," "outlook," "forecast" 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 Securities and Exchange Commission. Also, note the following cautionary statements.

Many factors could cause actual results to differ materially from the Company's forward-looking statements. Such factors include global economic conditions, increasing price and product competition by foreign and domestic competitors, fluctuations in cost and availability of raw materials, the ability to maintain favorable supplier relationships and arrangements, the timing of and the realization of anticipated cost savings from restructuring initiatives, difficulties in integrating acquired businesses and achieving expected synergies therefrom, economic and political conditions in international markets, the ability to penetrate existing, developing and emerging foreign and domestic markets, foreign exchange rates and fluctuations in such rates, fluctuations in tax rates, the impact of future legislation, the impact of environmental regulations, unexpected business disruptions and the unpredictability of existing and possible future litigation, including litigation that could result if the proposed asbestos settlement does not become effective. However, it is not possible to predict or identify all such factors.

While the list of factors presented here and in the Company's Form 10-K for the year ended December 31, 2014 under the caption "Item 1A Risk Factors" are 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.

Consequences of material differences in the results compared with those anticipated in the forward-looking statements could include, among other things, lower sales or earnings, business disruption, operational problems, financial loss, legal liability to third parties, other factors set forth in "Item 1A. Risk Factors" of the Company's Form 10-K for the year ended December 31, 2014 and similar risks, any of which could have a material adverse effect on the Company's consolidated financial condition, results of operations or liquidity.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

In March 2015, PPG issued long-term, Euro-denominated borrowings of $1.26 billion. As of September 30, 2015, PPG had non-U.S. dollar denominated borrowings outstanding of $2.2 billion. As of December 31, 2014, PPG had non-U.S. dollar denominated borrowings outstanding of $1.3 billion. 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 on these borrowings of approximately $252 million and $154 million as of September 30, 2015 and December 31, 2014, respectively.

There were no other material changes in the Company's exposure to market risk from December 31, 2014 to September 30, 2015 . See Note 13, "Financial Instruments, Hedging Activities and Fair Value Measurements" for a description of our instruments subject to market risk.

Item 4. Controls and Procedures

a. Evaluation of disclosure controls and procedures. Based on their evaluation as of the end of the period covered by this Form 10-Q, 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-15(e) and 15d-15(e) 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 and to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its principal executive and principal financial officers, as appropriate, to allow timely decisions regarding required disclosure.

b. Changes in internal control. There were no changes in the Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. 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 may relate to contract, patent, environmental, product liability, antitrust and other matters arising out of the conduct of PPG's current and past business activities. To the extent that these lawsuits and claims involve personal injury and property damage, PPG believes it has adequate insurance; however, certain of PPG's insurers are contesting coverage with respect to some of these claims, and other insurers, as they had prior to the asbestos settlement described below, may contest coverage with respect to some of the asbestos claims if the settlement is not implemented. PPG's lawsuits and claims against others include claims against insurers and other third parties with respect to actual and contingent losses related to environmental, asbestos and other matters.

The results of any future litigation and claims are 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 does not become effective, will not have a material effect on PPG's consolidated financial position or liquidity; however, such outcome may be material to the results of operations of any particular period in which costs, if any, are recognized.

For over 30 years, PPG has been a defendant in lawsuits involving claims alleging personal injury from exposure to asbestos. For a description of asbestos litigation affecting the Company and the terms and status of the proposed asbestos settlement arrangement, see Note 15, "Commitments and Contingent Liabilities" to the accompanying condensed consolidated financial statements under Part I, Item 1 of this Form 10-Q.

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

PPG was cited for nine alleged violations of the health and safety requirements of its Amsterdam facility's environmental permit following an inspection carried out by the municipality of Amsterdam in 2011. PPG and the Amsterdam Public Ministry reached an agreement in the second quarter of 2015 that would resolve this matter with a settlement that includes the payment by PPG of a €100,000 fine. In the third quarter of 2015, the settlement was approved by the Netherlands Minister of Security and Justice, and PPG paid the €100,000 fine.

In December 2011, the United States Environmental Protection Agency ("EPA") issued a Finding of Violation alleging that PPG's Delaware, Ohio facility violated certain leak detection and repair requirements of the federal Clean Air Act. PPG and the EPA are engaged in discussions in an effort to try to resolve this matter with a negotiated consent decree. As part of these settlement discussions, the EPA is currently seeking a civil penalty from PPG of approximately $480,000. Final resolution of these matters is subject to further negotiation between PPG and the EPA. However, it is likely that the final penalty will exceed $100,000.

In July 2013, the EPA issued to PPG a Notice of Violation ("NOV") alleging that the Company's Barberton, Ohio facility violated certain air emission regulatory requirements of the federal Clean Air Act. In February 2015, the EPA issued a second NOV to the Company alleging that the Company's Barberton facility had failed to submit certain information requested by the EPA and that the facility exceeded certain air emission limits contained in the facility's air emission permit. PPG and the EPA are engaged in discussions in an effort to try to resolve this matter with a negotiated consent decree. As part of these settlement discussions, the EPA is currently seeking a civil penalty from PPG of approximately $150,000. Final resolution of these matters is subject to further negotiation between PPG and the EPA. However, it is likely that the final penalty will exceed $100,000.

Item 1A. Risk Factors

There were no material changes in the Company's risk factors from the risks disclosed in the Company's Form 10-K for the year ended December 31, 2014 .

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

Directors who are not also officers of the Company receive common stock equivalents pursuant to the PPG Industries, Inc. Deferred Compensation Plan for Directors ("PPG Deferred Compensation Plan for Directors"). Common stock equivalents are hypothetical shares of common stock having a value on any given date equal to the value of a share of common stock. Common stock equivalents earn dividend equivalents that are converted into additional common stock equivalents but carry no voting rights or other rights afforded to a holder of common stock. The common stock

equivalents credited to directors under 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.

Under the PPG Deferred Compensation Plan for Directors, each director may elect to defer the receipt of all or any portion of the compensation paid to such director for serving as a PPG director. All deferred payments are held in the form of common stock equivalents. Payments out of the deferred accounts are made in the form of common stock of the Company (and cash as to any fractional common stock equivalent). In the third quarter of 2015, the directors, as a group, were credited with 1,948 common stock equivalents under this plan. The value of each common stock equivalent, when credited, ranged from $96.72 to $116.50.

Issuer Purchases of Equity Securities

The following table summarizes the Company's stock repurchase activity for the three months ended September 30, 2015 :

Month	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs (1)	Maximum Number of Shares That May Yet Be Purchased Under the Programs (1)
July 2015				
Repurchase program	288,185	$ 107.15	288,185	11,893,724
August 2015				
Repurchase program	647,434	$ 101.49	647,434	12,839,350
September 2015				
Repurchase program	578,047	$ 92.61	578,047	13,341,418
Total quarter ended September 30, 2015				
Repurchase program	1,513,666	$ 99.12	1,513,666	13,341,418

(1) These shares were repurchased under a $2 billion share repurchase program approved in April 2014. The remaining shares that may be repurchased under the $2 billion repurchase program have been calculated based upon PPG's closing stock price on the last business day of the respective month. This repurchase program has no expiration date.

Item 6. Exhibits

See the Index to Exhibits on Page 45.

SIGNATURES

Pursuant to the requirements 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.

PPG INDUSTRIES, INC.
(Registrant)

Date: October 26, 2015

By: /s/ Frank S. Sklarsky
Frank S. Sklarsky
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer and Duly Authorized Officer)

PPG INDUSTRIES, INC. AND SUBSIDIARIES

Index to Exhibits

The following exhibits are filed as part of, or incorporated by reference into, this Form 10-Q.

†12	Computation of Ratio of Earnings to Fixed Charges for the Nine Months Ended September 30, 2015 and for the Five Years Ended December 31, 2014.
†31.1	Certification of Principal Executive Officer Pursuant to Rule 13a-14(a) or 15d-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
†31.2	Certification of Principal Financial Officer Pursuant to Rule 13a-14(a) or 15d-14(a) of the Exchange Act, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
††32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
††32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

† Filed herewith.

†† Furnished herewith.

* Attached as Exhibit 101 to this report are the following documents formatted in XBRL (Extensible Business Reporting Language): (i) the Condensed Consolidated Statement of Income for the three and nine months ended September 30, 2015 and 2014, (ii) the Condensed Consolidated Balance Sheet at September 30, 2015 and December 31, 2014, (iii) the Condensed Consolidated Statement of Cash Flows for the nine months ended September 30, 2015 and 2014, and (iv) Notes to Condensed Consolidated Financial Statements for the three and nine months ended September 30, 2015.

Exhibit 12

PPG INDUSTRIES, INC. AND CONSOLIDATED SUBSIDIARIES
Computation of Ratio of Earnings to Fixed Charges
(Dollars in millions)

	Nine Months Ended September 30	Year Ended December 31				
	2015	2014	2013	2012	2011	2010
Earnings:						
Earnings before income taxes and net earnings in equity affiliates	$ 1,438	$ 1,308	$ 1,229	$ 814	$ 936	$ 778
Plus:						
Fixed charges exclusive of capitalized interest	160	280	284	281	280	263
Amortization of capitalized interest	5	6	6	6	6	6
Adjustments for equity affiliates	1	5	9	12	19	6
Total	**$ 1,604**	**$ 1,599**	**$ 1,528**	**$ 1,113**	**$ 1,241**	**$ 1,053**
Fixed Charges:						
Interest expense incl amortization of debt discount/premium and debt expense	$ 94	$ 187	$ 197	$ 210	$ 210	$ 189
Rentals - portion representative of interest	66	93	87	71	70	74
Fixed charges exclusive of capitalized interest	160	280	284	281	280	263
Capitalized interest	7	16	10	8	9	7
Total	**$ 167**	**$ 296**	**$ 294**	**$ 289**	**$ 289**	**$ 270**
Ratio of earnings to fixed charges	**9.6**	**5.4**	**5.2**	**3.9**	**4.3**	**3.9**

Note: The financial information of all prior periods has been reclassified to reflect discontinued operations

Exhibit 31.1

PRINCIPAL EXECUTIVE OFFICER CERTIFICATION

I, Michael H. McGarry, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PPG Industries, Inc.;

2. Based on my knowledge, this 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 26, 2015

/s/ Michael H. McGarry

Michael H. McGarry
President and Chief Executive Officer

Exhibit 31.2

PRINCIPAL FINANCIAL OFFICER CERTIFICATION

I, Frank S. Sklarsky, certify that:

1. I have reviewed this quarterly report on Form 10-Q of PPG Industries, Inc.;

2. Based on my knowledge, this 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 report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: October 26, 2015

/s/ Frank S. Sklarsky

Frank S. Sklarsky
Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 32.1

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 Quarterly Report on Form 10-Q of PPG Industries, Inc. for the period ended September 30, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael H. McGarry, President and 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.

/s/ Michael H. McGarry

Michael H. McGarry
President and Chief Executive Officer
October 26, 2015

A signed original of this written statement required by Section 906 has been provided to PPG Industries, Inc. and will be retained by PPG Industries, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

Exhibit 32.2

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 Quarterly Report on Form 10-Q of PPG Industries, Inc. for the period ended September 30, 2015 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Frank S. Sklarsky, Executive Vice President and 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.

/s/ Frank S. Sklarsky

Frank S. Sklarsky
Executive Vice President and Chief Financial Officer
(Principal Financial and Accounting Officer)

October 26, 2015

A signed original of this written statement required by Section 906 has been provided to PPG Industries, Inc. and will be retained by PPG Industries, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.