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 March 31, 2016

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 March 31, 2016 , 266,063,408 shares of the Registrant's common stock, par value $1.66-2/3 per share, were outstanding.

PPG INDUSTRIES, INC. AND SUBSIDIARIES

INDEX

		PAGE
Part I. Financial Information		
Item 1.	Financial Statements (Unaudited):	
	Condensed Consolidated Statement of Income	2
	Condensed Consolidated Statement of Comprehensive Income	3
	Condensed Consolidated Balance Sheet	4
	Condensed Consolidated Statement of Cash Flows	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	25
Item 3.	Quantitative and Qualitative Disclosures About Market Risk	34
Item 4.	Controls and Procedures	34
Part II. Other Information		
Item 1.	Legal Proceedings	35
Item 1A.	Risk Factors	35
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	35
Item 6.	Exhibits	36
Signature		37

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 March 31	
	2016	2015
Net sales	$ 3,672	$ 3,662
Cost of sales, exclusive of depreciation and amortization	2,013	2,065
Selling, general and administrative	919	914
Depreciation	91	87
Amortization	30	33
Research and development, net	118	119
Interest expense	31	29
Interest income	(7)	(11)
Asbestos settlement, net	3	3
Other charges	21	24
Other income	(18)	(31)
Income from continuing operations before income taxes	471	430
Income tax expense	117	104
Income from continuing operations	354	326
Income from discontinued operations, net of tax	—	1
Net income attributable to the controlling and noncontrolling interests	354	327
Less: Net income attributable to noncontrolling interests	(7)	(5)
Net income (attributable to PPG)	$ 347	$ 322
Amounts attributable to PPG:		
Income from continuing operations, net of tax	$ 347	$ 321
Income from discontinued operations, net of tax	—	1
Net income (attributable to PPG)	$ 347	$ 322
Earnings per common share:		
Income from continuing operations, net of tax	$ 1.30	$ 1.17
Income from discontinued operations, net of tax	—	0.01
Net income (attributable to PPG)	$ 1.30	$ 1.18
Earnings per common share – assuming dilution:		
Income from continuing operations, net of tax	$ 1.29	$ 1.16
Income from discontinued operations, net of tax	—	0.01
Net income (attributable to PPG)	$ 1.29	$ 1.17
Dividends per common share	$ 0.36	$ 0.33

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 March 31	
	2016	**2015**
Net income attributable to the controlling and noncontrolling interests	$ 354	$ 327
Other comprehensive income, net of tax:		
Defined benefit pension and other postretirement benefits	19	68
Unrealized foreign currency translation adjustments	45	(272)
Derivative financial instruments, net	(8)	6
Other comprehensive income (loss), net of tax	56	(198)
Total comprehensive income	$ 410	$ 129
Less: amounts attributable to noncontrolling interests:		
Net income	(7)	(5)
Unrealized foreign currency translation adjustments	3	5
Comprehensive income attributable to PPG	$ 406	$ 129

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)

	March 31, 2016	December 31, 2015
Assets		
Current assets:		
Cash and cash equivalents	$ 909	$ 1,311
Short-term investments	121	144
Receivables (less allowance for doubtful accounts of $53 and $51)	3,106	2,788
Inventories	1,863	1,705
Other	719	606
Total current assets	6,718	6,554
Property, plant and equipment (net of accumulated depreciation of $4,557 and $4,434)	3,038	3,017
Goodwill	3,743	3,669
Identifiable intangible assets, net	2,170	2,178
Deferred income taxes	648	672
Investments	370	367
Other assets	628	619
Total	$ 17,315	$ 17,076
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable and accrued liabilities	$ 3,616	$ 3,490
Asbestos settlement	831	796
Restructuring reserves	71	87
Short-term debt and current portion of long-term debt	38	283
Total current liabilities	4,556	4,656
Long-term debt	4,226	4,042
Accrued pensions	682	712
Other postretirement benefits	1,017	1,021
Asbestos settlement	255	252
Deferred income taxes	479	460
Other liabilities	852	864
Total liabilities	12,067	12,007
Commitments and contingent liabilities (Note 15)		
Shareholders' equity:		
Common stock	969	969
Additional paid-in capital	648	635
Retained earnings	15,770	15,521
Treasury stock, at cost	(9,583)	(9,440)
Accumulated other comprehensive loss	(2,643)	(2,702)
Total PPG shareholders' equity	5,161	4,983
Noncontrolling interests	87	86
Total shareholders' equity	5,248	5,069
Total	$ 17,315	$ 17,076

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)

	Three Months Ended March 31	
	2016	**2015**
Operating activities:		
Net income attributable to controlling and noncontrolling interests	$ 354	$ 327
Less: Income from discontinued operations	—	(1)
Income from continuing operations	354	326
Adjustments to reconcile net income to cash from operations:		
Depreciation and amortization	121	120
Pension expense	19	24
Stock-based compensation expense	10	15
Equity affiliate earnings, net of distributions received	(3)	(6)
Deferred income tax (benefit) expense	(4)	12
Gain on derivative instruments	—	(55)
Cash contributions to pension plans	(6)	(276)
Restructuring cash spend	(18)	(13)
Change in certain asset and liability accounts:		
Receivables	(269)	(327)
Inventories	(120)	(136)
Other current assets	(83)	(66)
Accounts payable and accrued liabilities	90	(63)
Taxes and interest payable	(57)	67
Noncurrent assets and liabilities, net	(4)	(33)
Other	29	(18)
Cash from / (used for) operating activities	59	(429)
Investing activities:		
Capital expenditures	(77)	(72)
Business acquisitions, net of cash balances acquired	(6)	(9)
Proceeds from the disposition of PPG's interest in the Transitions Optical joint venture and sunlens business	—	47
Proceeds from maturity of short-term investments	31	51
Payments for the settlement of cross currency swap contracts	(36)	(34)
Proceeds from the settlement of cross currency swap	19	19
Proceeds from the settlement of net investment hedges	—	19
Other	6	14
Cash (used for) / from investing activities	(63)	35
Financing activities:		
Net change in borrowing with maturities of three months or less	2	(20)
Net proceeds (payments) on commercial paper and short-term debt	86	(497)
Proceeds from the issuance of debt	—	1,242
Repayment of long-term debt	(251)	(1)
Purchase of treasury stock	(150)	(200)
Issuance of treasury stock	14	44
Dividends paid	(96)	(91)
Other	(14)	(19)
Cash (used for) / from financing activities	(409)	458
Effect of currency exchange rate changes on cash and cash equivalents	11	(15)
Net (decrease) / increase in cash and cash equivalents	(402)	49
Cash and cash equivalents, beginning of period	1,311	686
Cash and cash equivalents, end of period	$ 909	$ 735

Supplemental disclosures of cash flow information:		
Interest paid, net of amount capitalized	$ 33	$ 17
Taxes paid, net of refunds	$ 108	$ 83

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 March 31, 2016 , and the results of their operations for the three months ended March 31, 2016 and 2015 and their cash flows for the three 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, 2015 .

Revenues, expenses, assets and liabilities can vary during each quarter of the year. Accordingly, the results of operations for the three months ended March 31, 2016 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 in this Form 10-Q give retroactive effect to the stock split. These adjustments had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

2 . New Accounting Standards

In April 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-10, "Identifying Performance Obligations and Licensing." This ASU addresses certain implementation issues that have surfaced since the issuance of ASU No. 2014-09 in May 2014. The ASU provides guidance in identifying performance obligations and determining the appropriate accounting for licensing arrangements. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017, and for interim periods therein. 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.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting.” This ASU simplifies certain aspects of the accounting for share-based payment transactions, including income tax requirements, forfeitures, and presentation on the balance sheet and the statement of cash flows. The amendments in this ASU are effective for annual periods beginning after December 15, 2016 and for the interim periods therein. 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.

In March 2016, the FASB issued ASU No. 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)." This ASU clarifies the revenue recognition implementation guidance for preparers on certain aspects of principal versus agent consideration. The amendments in this ASU are effective for annual periods beginning after December 15, 2017 and for interim periods therein. 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.

In February 2016, the FASB issued ASU No. 2016-02, “Leases.” This ASU requires all lessees to recognize on the balance sheet right to use assets and lease liabilities for the rights and obligations created by lease arrangements with terms greater than 12 months. The amendments in this ASU are effective for fiscal years beginning after December 15, 2018 and for interim periods therein. 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.

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. The amendments in this ASU are effective for fiscal years beginning after December 15, 2017, and for interim periods therein. 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 . Dispositions

On April 21, 2016, PPG sold its ownership interest in Pittsburgh Glass Works LLC ("PGW") to LKQ Corporation, concurrent with the majority partner's sale of its ownership interest. At March 31, 2016, the carrying value of PPG's investment in PGW approximated $20 million . In conjunction with the sale, PPG received approximately $41 million in cash proceeds and will record a pre-tax gain between $18 million to $23 million in the second quarter 2016. PPG accounted for its interest in PGW under the equity method of accounting. PPG's share of net earnings from PGW are reported in Other income in the Condensed, Consolidated Statement of Income for all periods presented and have not been reclassified as discontinued operations, as the divestiture of PGW does not represent a strategic shift in PPG's operations and PGW did not have a major impact on PPG's ongoing results of operations.

4 . Inventories

($ in millions)	March 31, 2016	December 31, 2015
Finished products	$ 1,187	$ 1,082
Work in process	179	160
Raw materials	446	413
Supplies	51	50
Total Inventories	$ 1,863	$ 1,705

Most U.S. inventories are valued using the last-in, first-out method. These inventories represented approximately 38% and 39% of total inventories at March 31, 2016 and December 31, 2015 , respectively. If the first-in, first-out method of inventory valuation had been used, inventories would have been $145 million and $163 million higher as of March 31, 2016 and December 31, 2015 , respectively.

5 . Goodwill and Other Identifiable Intangible Assets

The change in the carrying amount of goodwill attributable to each reportable segment for the three months ended March 31, 2016 was as follows:

($ in millions)	Performance Coatings	Industrial Coatings	Glass	Total
Balance, December 31, 2015	$ 3,073	$ 552	$ 44	$ 3,669
Acquisitions	4	1	—	5
Currency	52	16	1	69
Balance, March 31, 2016	$ 3,129	$ 569	$ 45	$ 3,743

The carrying amount of acquired trademarks with indefinite lives totaled $1.3 billion as of March 31, 2016 and December 31, 2015 .

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

	March 31, 2016			December 31, 2015		
($ in millions)	Gross Carrying Amount	Accumulated Amortization	Net	Gross Carrying Amount	Accumulated Amortization	Net
Acquired technology	$ 576	$ (432)	$ 144	$ 572	$ (421)	$ 151
Customer-related intangibles	1,300	(611)	689	1,267	(574)	693
Trade names	137	(67)	70	132	(61)	71
Other	40	(28)	12	39	(26)	13
Balance	$ 2,053	$ (1,138)	$ 915	$ 2,010	$ (1,082)	$ 928

Aggregate amortization expense related to these identifiable intangible assets for the three months ended March 31, 2016 and 2015 was $30 million and $33 million , respectively.

As of March 31, 2016 , estimated future amortization expense of identifiable intangible assets is as follows:

($ in millions)	Future Amortization Expense
Remaining nine months of 2016	$ 95
2017	125
2018	120
2019	110
2020	95
2021	95
Thereafter	275

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 pre-tax 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 2015 restructuring charge and the reserve activity for 2015 and the quarter ended March 31, 2016 was as follows:

($ 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
2015 Activity	(32)	(19)	(51)	(1,047)
Foreign currency impact	(2)	—	(2)	—
Balance as of December 31, 2015	$ 87	$ —	$ 87	806
2016 Activity	(18)	—	(18)	(123)
Foreign currency impact	2	—	2	—
Balance as of March 31, 2016	$ 71	$ —	$ 71	683

7 . Borrowings

In January 2016, PPG’s $250 million 1.9% notes matured, and PPG repaid these notes with cash on hand.

In March 2015, PPG completed a public offering of €600 million 0.875% Notes due 2022 and €600 million 1.400% Notes due 2027 (together, the “Notes”), or €1.2 billion ($1.26 billion) in aggregate principal amount. 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.

8 . Earnings Per 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 effect of dilutive securities on the weighted average common shares outstanding included in the calculation of earnings per diluted common share for the three months ended March 31, 2016 and 2015 were as follows:

	Three Months Ended March 31	
(number of shares in millions)	2016	2015
Weighted average common shares outstanding	267.6	273.2
Effect of dilutive securities:		
Stock options	0.9	1.2
Other stock compensation plans	0.9	1.2
Potentially dilutive common shares	1.8	2.4
Adjusted weighted average common shares outstanding	269.4	275.6

Excluded from the computation of earnings per diluted share due to their antidilutive effect were 0.6 million outstanding stock options for the three months ended March 31, 2016 . There were no antidilutive outstanding stock options for the three months ended March 31, 2015 .

9 . Income Taxes

	Three Months Ended March 31	
	2016	2015
Effective tax rate on pre-tax income from continuing operations	24.8%	24.2%

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 months ended March 31, 2016 and 2015 were as follows:

	Pensions		Other Postretirement	
	Three Months Ended March 31		Three Months Ended March 31	
($ in millions)	2016	2015	2016	2015
Service cost	$ 14	$ 15	$ 4	$ 5
Interest cost	43	50	10	12
Expected return on plan assets	(69)	(70)	—	—
Amortization of actuarial losses	31	30	4	8
Amortization of prior service credit	—	(1)	(2)	(3)
Net periodic benefit cost	$ 19	$ 24	$ 16	$ 22

PPG expects its net periodic pension and other post-retirement benefit cost, excluding settlement losses, for 2016 will be approximately $140 million , with pension representing approximately $75 million and other post-retirement benefit cost representing approximately $65 million .

In 2016, PPG changed the method it uses to estimate the service and interest cost components of net periodic benefit cost for pension and other postretirement benefit costs for substantially all of its U.S. and foreign plans. Historically, the service and interest cost components were estimated using a single weighted-average discount rate derived from the yield curve used to measure the projected benefit obligation at the beginning of the period. PPG has elected to use a full yield curve approach (“Split-rate”) to estimate these components of benefit cost by applying specific spot rates along the yield curve used to determine the benefit obligation to the relevant projected cash flows. PPG made this change to improve the correlation between projected benefit cash flows and the corresponding yield curve spot rates and to provide a more precise measurement of service and interest costs. This change does not affect the measurement of the Company’s total benefit obligations. PPG accounted for this change as a change in estimate and, accordingly, is recognizing its effect prospectively beginning in fiscal year 2016.

Contributions to Defined Benefit Pension Plans

	Three Months Ended March 31	
($ in millions)	2016	2015
U.S. defined benefit pension voluntary contributions	$ —	$ 250
Non-U.S. defined benefit pension plan contributions	$ 6	$ 26

PPG is not required to make any mandatory contributions to its U.S. defined benefit pension plans in 2016 . PPG expects to make mandatory contributions to its non-U.S. pension plans in the range of $30 million to $35 million over the remaining nine months of 2016. We may make voluntary contributions to our defined benefit pension plans in 2016 and beyond.

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. There were no charges recorded in the three months ended March 31, 2016 or 2015; however, additional windup charges of $40 million to $50 million are expected during the remaining nine months of 2016 related to these plant closures. Cash contributions related to these future windups are expected to be in the range of $5 million to $10 million .

11 . Shareholders' Equity

Changes to shareholders' equity for the three months ended March 31, 2016 and 2015 were as follows:

($ in millions)	Total PPG Shareholders' Equity	Non-controlling Interests	Total
Balance, January 1, 2016	$ 4,983	$ 86	$ 5,069
Net income	347	7	354
Other comprehensive income, net of tax	59	(3)	56
Cash dividends	(96)	—	(96)
Issuance of treasury stock	34	—	34
Stock repurchase program	(150)	—	(150)
Stock-based compensation activity	(16)	—	(16)
Other	—	(3)	(3)
Balance, March 31, 2016	$ 5,161	$ 87	$ 5,248

($ in millions)	Total PPG Shareholders' Equity	Non-controlling Interests	Total
Balance, January 1, 2015	$ 5,180	$ 85	$ 5,265
Net income	322	5	327
Other comprehensive income, net of tax	(193)	(5)	(198)
Cash dividends	(91)	—	(91)
Issuance of treasury stock	58	—	58
Stock repurchase program	(200)	—	(200)
Stock-based compensation activity	2	—	2
Other	—	(5)	(5)
Balance, March 31, 2015	$ 5,078	$ 80	$ 5,158

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, 2016	$ (1,332)	$ (1,379)	$ 9	$ (2,702)
Current year deferrals to AOCI	49 [a]	—	—	49
Current year deferrals to AOCI, tax effected	(1) [b]	6 [c]	2 [d]	7
Reclassifications from AOCI to net income	—	13	(10)	3
Net change	$ 48	$ 19	$ (8)	$ 59
Balance, March 31, 2016	$ (1,284)	$ (1,360)	$ 1	$ (2,643)
Balance, January 1, 2015	$ (628)	$ (1,492)	$ 4	$ (2,116)
Current year deferrals to AOCI	(429) [a]	—	—	(429)
Current year deferrals to AOCI, tax effected	162 [b]	45 [c]	(33) [d]	174
Reclassifications from AOCI to net income	—	23	39	62
Net change	$ (267)	$ 68	$ 6	$ (193)
Balance, March 31, 2015	$ (895)	$ (1,424)	$ 10	$ (2,309)

(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 (benefit) cost related to unrealized foreign currency translation adjustments on tax inter-branch transactions and net investment hedges for the three months ended March 31, 2016 and 2015 was $(17) million and $51 million , respectively. 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 three months ended March 31, 2016 and 2015 was $20 million and $24 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 (benefit) cost related to the changes in the unrealized gain on derivatives for the three months ended March 31, 2016 and 2015 was $(4) million and $2 million , respectively. Reclassifications from AOCI are included in the gain 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 March 31, 2016 and December 31, 2015 , 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 months ended March 31, 2016 and 2015 .

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.

There were no derivative instruments de-designated or discontinued as hedging instruments during the three months ended March 31, 2016 and 2015.

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 March 31, 2016 and 2015 , the fair value of these contracts were insignificant.

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 2,777,778 shares of PPG stock (after 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.” These financial instruments are recorded at fair value as assets or liabilities and changes in the fair value of these financial instruments 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 . During the terms of these equity forward arrangements, 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. 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 these financial instruments as well as the amount that PPG would pay or receive if the counterparty chose to net settle these financial instruments. Alternatively, the counterparty 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 March 31, 2016 and December 31, 2015 , the fair value of these arrangements was an asset of $259 million and $223 million , respectively.

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 March 31, 2016 and December 31, 2015 . 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 which matures in 2021.

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 March 31, 2016 and December 31, 2015 , the fair value of all foreign currency forward contracts designated as cash flow hedges was a net asset of $29 million and $44 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 March 31, 2016 , 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 March 31, 2016 and December 31, 2015 , the fair value of these contracts was a net asset of $36 million and $41 million , respectively.

As of March 31, 2016 and December 31, 2015 , PPG had designated €1.9 billion Euro-denominated borrowings as hedges of a portion of its net investment in the Company's European operations. The carrying value of these instruments as of March 31, 2016 and December 31, 2015 was $2.1 billion and $2.0 billion , respectively.

Gains/Losses Deferred in AOCI

As of March 31, 2016 and December 31, 2015 , the Company had accumulated pre-tax unrealized translation gains in AOCI related to the Euro-denominated borrowings, foreign currency forward contracts and the cross currency swaps of $232 million and $349 million , respectively.

The following tables summarize the location within the financial statements and amount of gains (losses) related to derivative financial instruments for the three months ended March 31, 2016 and 2015. All dollar amounts are shown on a pre-tax basis.

($ in millions)	March 31, 2016		
	Loss Deferred in OCI	Gain (Loss) Recognized	
Hedge Type		Amount	Caption
Fair Value			
Equity forward arrangements	Not applicable	36	Asbestos settlement - net
Total Fair Value		$ 36	
Cash Flow			
Foreign currency forward contracts [(a)]	$ (15)	$ (3)	Other charges
Total Cash Flow	$ (15)	$ (3)	
Net Investment			
Cross currency swaps	$ (22)		
Foreign denominated debt	(95)		
Total Net Investment	$ (117)		

(a) The ineffective portion related to this item was $3 million of income.

($ in millions)	March 31, 2015		
	Gain Deferred in OCI	Gain (Loss) Recognized	
Hedge Type		Amount	Caption
Fair Value			
Equity forward arrangements	Not applicable	(7)	Asbestos settlement - net
Total Fair Value		$ (7)	
Cash Flow			
Foreign currency forward contracts [(a)]	57	49	Other charges
Total Cash Flow	$ 57	$ 49	
Net Investment			
Cross currency swaps	$ 82		
Foreign currency forward contracts	18		
Foreign denominated debt	113		
Total Net Investment	$ 213		

(a) The ineffective portion related to this item was $2 million of expense.

Fair Value Measurements

The Company follows a fair value measurement hierarchy to measure its assets and liabilities. As of March 31, 2016 and December 31, 2015 , 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 2015 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 March 31, 2016 and December 31, 2015 that are classified as Level 3 inputs.

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

	March 31, 2016		
($ in millions)	Level 1	Level 2	Level 3
Assets:			
Other current assets:			
Marketable equity securities	$ 4	$ —	$ —
Foreign currency forward contracts	—	38	—
Equity forward arrangement	—	259	—
Investments:			
Marketable equity securities	77	—	—
Other Assets:			
Cross currency swaps	—	36	—
Liabilities:			
Accounts payable and accrued liabilities:			
Foreign currency forward contracts	—	9	—

	December 31, 2015		
($ in millions)	Level 1	Level 2	Level 3
Assets:			
Other current assets:			
Marketable equity securities	$ 4	$ —	$ —
Foreign currency forward contracts	—	47	—
Equity forward arrangement	—	223	—
Investments:			
Marketable equity securities	77	—	—
Other assets:			
Cross currency swaps	—	41	—
Liabilities:			
Accounts payable and accrued liabilities:			
Foreign currency forward contracts	—	4	—

Long-Term Debt

($ in millions)	March 31, 2016 [a]	December 31, 2015 [b]
Long-term debt - carrying value	$ 4,200	$ 4,265
Long-term debt - fair value	$ 4,423	$ 4,367

(a) Excluding capital lease obligations of $30 million and short term borrowings of $34 million as of March 31, 2016 .

(b) Excluding capital lease obligations of $30 million and short term borrowings of $29 million as of December 31, 2015 .

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:

There were no significant adjustments to the fair value of nonmonetary assets or liabilities for the three months ended March 31, 2016 , or for the year ended December 31, 2015 .

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 8.9 million as of March 31, 2016.

Stock-based compensation and the income tax benefit recognized during the three months ended March 31, 2016 and 2015 were as follows:

	Three Months Ended March 31	
($ in millions)	2016	2015
Stock-based compensation	$ 10	$ 15
Income tax benefit recognized	$ 4	$ 5

Grants of stock-based compensation during the three months ended March 31, 2016 and 2015 were as follows:

	Three Months Ended March 31			
	2016		2015	
Grant Details	Shares	Fair Value	Shares	Fair Value
Stock options	775,319	$ 17.89	583,172	$ 26.98
Restricted stock units	245,038	$ 90.79	182,150	$ 114.04
Contingent shares (a)	59,645	$ 95.00	63,308	$ 118.12

(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 three months ended March 31, 2016 was calculated with the following weighted average assumptions:

Weighted average exercise price	$ 95.06
Risk-free interest rate	1.6%
Expected life of option in years	6.5
Expected dividend yield	2.1%
Expected volatility	22.8%

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) 2,777,778 shares of PPG’s common stock (after 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 to the U.S. Third Circuit Court of Appeals challenging the affirmance order. In addition to the notice of 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 two appeals were subsequently consolidated for disposition by the Court of Appeals. The Court of Appeals dismissed both appeals, by agreement of the parties, on January 7, 2016. During February 2016, the Bankruptcy Court entered an order approving the trustees of the Trust. Also in February, a motion to approve technical amendments to the PC plan

of reorganization was filed. No objections to that motion were filed, and the Bankruptcy Court granted the motion on March 24, 2016.

The 2009 PPG Settlement Arrangement will not become effective until certain conditions precedent are satisfied or waived and PPG's initial contributions will not be due until 30 business days thereafter (the "Funding Effective Date") which the Company expects will occur in the second quarter of 2016.

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 255 active premises claims. PPG is currently engaged in the process of settling or otherwise resolving approximately 45 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 2,777,778 shares of PPG's common stock (after 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 pre-tax 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 pre-tax 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 March 31, 2016 and December 31, 2015 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 $1.1 billion under the 2009 PPG Settlement Arrangement at March 31, 2016 , $831 million is reported as a current liability and $255 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 $64 million and will be reported as expense in the condensed consolidated statement of income over the period 2016 through 2023, as follows (in millions):

Remainder of 2016	$	11
2017		13
2018 – 2023		40
Total	$	64

The following table summarizes the impact on PPG's financial statements for the three and three months ended March 31, 2016 and 2015 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 March 31	
Increase (decrease) in expense	2016	2015
Change in fair value:		
PPG stock	$ 35	$ (8)
Equity forward instrument	(36)	7
Accretion of asbestos liability	4	4
Asbestos settlement – net expense	$ 3	$ 3

The fair value of the equity forward instrument is included as an "Other current asset" as of March 31, 2016 and December 31, 2015 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 March 31, 2016 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 March 31, 2016 .

If the funding date was March 31, 2016 , 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 $325 million . Subject to the fixed payment schedule, PPG would be obligated to make further aggregate cash payments totaling $320 million between 2017 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. See Note 13, "Commitments and Contingent Liabilities," under Item 8 of the 2015 Form 10-K for additional description of the following environmental matters.

As of March 31, 2016 and December 31, 2015, 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)	March 31, 2016	December 31, 2015
New Jersey Chrome	$ 126	$ 133
Other	101	100
Total	$ 227	$ 233
Current portion	$ 57	$ 51

Pre-tax charges against income for environmental remediation costs are included in "Other charges" in the accompanying condensed consolidated statement of income. The pre-tax charges and cash outlays related to such environmental remediation for the three months ended March 31, 2016 and 2015 were as follows:

	Three Months Ended March 31	
($ in millions)	2016	2015
Environmental remediation pre-tax charges	$ 5	$ 4
Cash outlays for environmental remediation activities	$ 14	$ 36

Remediation: New Jersey Chrome

In June 2009, PPG entered into a settlement agreement with the New Jersey Department of Environmental Protection (“NJDEP”) and Jersey City (which had asserted claims against PPG for lost tax revenue) which was in the form of a Judicial Consent Order (the "JCO"). Under the JCO, PPG accepted sole responsibility for the remediation activities at its former chromium manufacturing location in Jersey City, New Jersey and 19 additional sites. The principal contaminant of concern is hexavalent chromium. The JCO also provided for the appointment of a court-approved Site Administrator who is 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 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. The reserve 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.

Groundwater remediation at PPG's former chromium manufacturing site in Jersey City and five adjacent sites is expected to occur over several years after NJDEP's approval of a work plan. Ongoing groundwater monitoring will be utilized to develop a final groundwater remedial action work plan which is currently expected to be submitted to NJDEP no later than 2020.

PPG’s financial reserve for remediation of all New Jersey Chrome sites is $126 million at March 31, 2016. 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 38% and 34% of the accrued amount, respectively.

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 Legacy Sites

Among other sites at which PPG is managing environmental liabilities, remedial actions are occurring at a legacy chemical manufacturing site in Barberton, Ohio and a legacy plate glass manufacturing site in Kokomo, Indiana. With respect to certain waste sites where PPG is alleged to have contributed contaminants, the financial condition of other potentially responsible parties 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.

In March 2016, the Natural Resource Trustees for the Calcasieu River Estuary (Louisiana Department of Environmental Quality, The United States Environmental Protection Agency and the United States Department of the Interior) reached an agreement in principle with PPG and two other potentially responsible parties to resolve the Trustees' claims for natural resource damages alleged to have been caused by the release of hazardous substances into the Estuary. PPG's share of this settlement is approximately $3.6 million , which was reserved for in a prior period.

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 $175 million and guarantees of $25 million as of March 31, 2016 . 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 months ended March 31, 2016 and 2015 were as follows:

($ in millions)	Three Months Ended March 31 2016	2015
Net sales:		
Performance Coatings	$ 2,039	$ 2,055
Industrial Coatings	1,372	1,340
Glass	261	267
Total	$ 3,672	$ 3,662
Segment income:		
Performance Coatings	$ 279	$ 262
Industrial Coatings	265	244
Glass	28	30
Total	572	536
Corporate	(61)	(67)
Interest expense, net of interest income	(24)	(18)
Legacy items [(a)]	(10)	(12)
Asset write down	(4)	—
Transaction-related costs [(b)]	(2)	(9)
Income from continuing operations before income taxes	$ 471	$ 430

(a) 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 investment in the former automotive glass and services business.

(b) 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. These costs also include certain nonrecurring severance costs and charges associated with the Company's business portfolio transformation.

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

Performance in the First Quarter of 2016 Compared to the First Quarter of 2015

Executive Overview

Below are our key financial results for the quarter ended March 31, 2016 :

- Net sales were $3.7 billion , consistent with the prior year, primarily due to sales from acquired businesses (+3%) and higher volumes (+1%) offset by unfavorable foreign currency translation (-4%).
- Cost of sales, exclusive of depreciation and amortization decreased 2.5% to $2.0 billion .
- Selling, general and administrative expenses increased +0.5% to $0.9 billion , level as a percentage of sales.
- Income before income taxes was $471 million .
- The effective tax rate for the three months ended March 31, 2016 was 24.8% .
- Net income from continuing operations was $347 million and earnings per diluted share was $1.29 .
- Operating cash flow was $59 million .
- Capital expenditures, including acquisitions (net of cash acquired), was $83 million .
- During the three months ended March 31, 2016, the Company paid $96 million in dividends and also repurchased approximately $150 million of its outstanding common stock. On April 21, 2016, the Company raised the per-share dividend by 11% to $0.40 per share.

Performance Overview

Net Sales

	Three Months Ended March 31		Percent Change
($ in millions, except percentages)	**2016**	**2015**	**2016 vs. 2015**
The Americas			
United States	$ 1,562	$ 1,526	2.4 %
Other Americas	480	530	(9.4)%
Europe, Middle East and Africa (EMEA)	1,060	1,010	5.0 %
Asia Pacific	570	596	(4.4)%
Total	$ 3,672	$ 3,662	0.3 %

2016 vs. 2015

Net sales increased $10 million due to the following:

- *Net sales from acquired businesses (+3%)*
- *Higher sales volumes (+1%)*

Partially offset by:

- *Unfavorable foreign currency translation (-4%)*

Foreign currency translation reduced net sales by $140 million as the U.S. dollar strengthened against most foreign currencies versus the prior year, including the Euro (-3%). Weakness in other currencies versus the U.S. dollar was more significant, including a 17% deterioration in the Mexican Peso, as well as declines in the Canadian Dollar, Chinese Yuan, and Brazilian Real.

Acquired businesses added $104 million of sales in 2016, primarily Revocoat and IVC, supplemented by several other acquisitions made in 2015.

Sales volume growth occurred primarily in Europe, Middle East and Africa ("EMEA") and the emerging regions, while U.S. and Canada sales volumes were flat. The first quarter 2016 was the fifth consecutive quarter of broadening European volume growth.

Cost of Sales, exclusive of depreciation and amortization

	Three Months Ended March 31		Percent Change
($ in millions, except percentages)	**2016**	**2015**	**2016 vs. 2015**
Cost of sales, exclusive of depreciation and amortization	$ 2,013	$ 2,065	(2.5)%
Cost of sales as a percentage of net sales	54.8%	56.4%	(1.6)%

2016 vs. 2015

Cost of sales, exclusive of depreciation and amortization, decreased $52 million (-2.5%) due to the following:

- *Foreign currency translation*
- *Lower manufacturing costs*

Partially offset by:

- *Cost of sales from acquired businesses*
- *Higher sales volumes*

Selling, general and administrative expenses

	Three Months Ended March 31		Percent Change
($ in millions, except percentages)	**2016**	**2015**	**2016 vs. 2015**
Selling, general and administrative expenses	$ 919	$ 914	0.5%
Selling, general and administrative expenses as a percentage of net sales	25.0%	25.0%	—%

2016 vs. 2015
Selling, general and administrative expenses increased $5 million (+0.5%) primarily due to:
● *Selling, general and administrative expenses from acquired businesses*
● *Overhead cost inflation*
● *Increased architectural coatings U.S. and Canada business spending of approximately $15 million on new product launches and other growth-related initiatives at major national accounts.*
Partially offset by:
● *Foreign currency translation*
● *Restructuring cost savings*

Other costs and income

	Three Months Ended March 31		Percent Change
($ in millions, except percentages)	**2016**	**2015**	**2016 vs. 2015**
Interest expense, net of Interest income	$ 24	$ 18	33.3 %
Other charges	$ 21	$ 24	(12.5)%
Other income	$ (18)	$ (31)	(41.9)%

Interest expense, net of Interest income

Interest expense, net of Interest income increased $6 million in 2016 versus the prior year due to higher interest expense from the issuance of €1.2 billion Euro-denominated debt in March 2015 and as a result of lower interest income earned on deposits.

Other charges

Other charges included a $4 million asset write-down for the three months ended March 31, 2016 which was more than offset by lower year-over-year foreign currency losses.

Other income

Other income decreased year-over-year due to lower equity affiliate earnings, lower royalty income and foreign currency translation.

Effective tax rate and earnings per diluted share

	Three Months Ended March 31		Percent Change
($ in millions, except percentages)	**2016**	**2015**	**2016 vs. 2015**
Income tax expense	$ 117	$ 104	12.5%
Effective tax rate	24.8%	24.2%	0.6%
Adjusted effective tax rate, ongoing operations*	25.0%	24.4%	0.6%
Earnings per diluted share, continuing operations	$ 1.29	$ 1.16	11.2%
Adjusted earnings per diluted share*	$ 1.31	$ 1.18	11.0%

*See the Regulation G Reconciliation.

The full year effective tax rate for 2016 is expected to be higher from a shift in PPG's global mix of earnings toward jurisdictions with higher statutory tax rates, due in part to recent acquisitions.

Earnings per diluted share for the three months ended March 31, 2016 grew consecutively from 2015. The Company benefited from the 7.0 million shares repurchased in 2015 and 1.5 million shares repurchased in the first quarter of 2016.

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 in this Form 10-Q give retroactive effect to the stock split. These adjustments had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

Regulation G Reconciliation - Results from Operations

PPG Industries believes investors' understanding of the company's operating performance is enhanced by the disclosure of net income, earnings per diluted share and the effective tax rate adjusted for nonrecurring charges. 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 a quarterly basis. Net income and earnings per diluted share adjusted for these items are not recognized financial measures determined in accordance with U.S. generally accepted accounting principles (GAAP) and should not be considered a substitute for net income or earnings per diluted share or other financial measures as computed in accordance with U.S. GAAP. In addition, adjusted net income, earnings per diluted share and the effective tax rate may not be comparable to similarly titled measures as reported by other companies.

Income before income taxes is reconciled to adjusted income before income taxes, the effective tax rate from continuing operations is reconciled to the adjusted effective tax rate from continuing operations and 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 March 31, 2016				
($ in millions, except percentages and per share amounts)	Income Before Income Taxes	Tax Expense	Effective Tax Rate	Net income from continuing operations (attributable to PPG)	Earnings per diluted share
As reported, continuing operations	$ 471	$ 117	24.8%	$ 347	$ 1.29
Includes:					
Charges related to transaction-related costs [1]	2	1	37.6%	1	0.01
Charge for asset write-down	4	1	37.6%	3	0.01
Adjusted, continuing operations, excluding certain charges	$ 477	$ 119	25.0%	$ 351	$ 1.31

	Three months ended March 31, 2015				
($ in millions, except percentages and per share amounts)	Income Before Income Taxes	Tax Expense	Effective Tax Rate	Net income from continuing operations (attributable to PPG)	Earnings per diluted share
As reported, continuing operations	$ 430	$ 104	24.2%	$ 321	$ 1.16
Includes:					
Charges related to transaction-related costs [1]	9	3	33.3%	6	0.02
Adjusted, continuing operations, excluding certain charges	$ 439	$ 107	24.4%	$ 327	$ 1.18

(1) *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. These costs also include certain charges associated with the Company's business portfolio transformation.*

Performance of Reportable Business Segments

Performance Coatings

	Three Months Ended March 31		$ Change	% Change
($ in millions, except per share amounts)	**2016**	**2015**	**2016 vs. 2015**	**2016 vs. 2015**
Net sales	$ 2,039	$ 2,055	$ (16)	(0.8)%
Segment income	$ 279	$ 262	$ 17	6.5 %

2016 vs. 2015

Performance Coatings net sales decreased (-1%) due to the following:

- *Unfavorable foreign currency translation of approximately $85 million (-4%)*

Partially offset by:

- *Net sales from acquisitions (+1%)*
- *Higher sales volumes (+1%)*
- *Slightly higher selling prices*

Architectural coatings - EMEA sales volumes continued to trend favorably, with the growth rate increasing for several consecutive quarters. Sales volumes improved by a low-single-digit percentage year-over-year, led by growth in western Europe.

Protective and marine coatings net sales volumes were flat year-over-year as growth in protective coatings was offset by declines in marine coatings, primarily due to decreasing new ship builds. Protective coatings sales volumes grew versus the prior year in all regions, led by the U.S., Asia and Latin America, including benefits from expanded distribution through the Comex concessionaire network.

Aerospace coatings sales volumes declined a low-single digit percentage versus the prior year primarily due to lower commercial demand stemming from continuing customer inventory management. Regionally, Asian sales growth was offset by declines in the U.S. and Canada, while Europe was flat.

Automotive refinish coatings experienced increasing organic sales growth year-over-year, led by growing market demand in the U.S. and Asia.

Architectural coatings - Americas and Asia Pacific organic net sales increased modestly in the first quarter versus the prior year. Sales volumes were up slightly in the U.S. and Canadian region as aggregate demand growth in company-owned stores and national accounts was offset by declines in the independent dealer network and continued market weakness in certain Canadian markets. Local currency sales growth in Mexico was approximately two times the Mexican GDP despite comparisons to robust volume growth in the first quarter of 2015.

Segment income increased $17 million (+6%) year-over-year despite the impact of approximately $15 million of planned incremental costs for new product launch and other growth-related initiatives in major U.S. architectural coatings national accounts. The increase in segment income was primarily due to higher sales volumes, acquisition-related income and a continuing cost focus, including additional business restructuring benefits. Unfavorable foreign currency translation reduced segment income by almost $10 million.

Looking Ahead

We anticipate higher net sales sequentially due to normal seasonal patterns, as the second quarter is typically the largest sales quarter of the year for the Performance Coatings segment. Architectural coatings - EMEA sales volumes are expected to continue to broaden in the second quarter, but remain uneven by country. We also expect protective coatings demand growth trends to remain positive while marine coatings are anticipated to weaken further. We anticipate modest improvement in aerospace coatings sales volumes in the second quarter of 2016 as customers are expected to return to normal order patterns. Further, we expect organic sales growth to continue in the automotive refinish coatings business, aided by continued customer adoption of PPG's innovative new products. Year-over-year sales in the architectural coatings - Americas and Asia Pacific business unit are expected to improve in the second quarter due to seasonality, aided by higher demand and a subdued prior year volume growth rate in the U.S. and Canada.

We expect segment acquisition-related sales to be $20 million to $30 million, primarily related to Cuming Microwave and Le Joint Francais (LJF). Also, during the second quarter there will be no additional costs incurred for the new product initiatives in the U.S. and Canadian national accounts channel. We expect unfavorable foreign currency translation in the second quarter to remain significant year-over-year, reflecting the segment's increased seasonal sales.

Industrial Coatings

	Three Months Ended March 31		$ Change	% Change
($ in millions, except per share amounts)	**2016**	**2015**	**2016 vs. 2015**	**2016 vs. 2015**
Net sales	$ 1,372	$ 1,340	$ 32	2.4%
Segment income	$ 265	$ 244	$ 21	8.6%

2016 vs. 2015

Industrial Coatings segment net sales increased (+2%) due to the following:

- *Net sales from acquired businesses (+6%)*
- *Higher sales volumes (+1%), led by growth in Europe.*

Partially offset by:

- *Unfavorable foreign currency translation of approximately $50 million (-4%)*
- *Slightly lower selling prices*

PPG's global automotive OEM coatings business sales volumes were consistent with the prior year, reflecting modest global industry automotive production growth, and in comparison to strong prior year PPG-specific volume growth. PPG's sales volumes differed by region, with year-over-year growth tempered in Asia given the prior year double-digit percentage growth.

In aggregate, global sales volumes increased modestly in the general industrial coatings and specialty coatings and materials business units year-over-year, as growth momentum continued from the fourth quarter 2015. Sales volume performance remained uneven by end-use market and geography. Regionally, European sales volumes continued to expand, with positive growth rates in the U.S. and Canada. Sales volumes in Asia were flat and declined in South America. By end-use market, volume growth remained consistent with improved demand in automotive parts and accessories and expansion in coil and extrusion, partially offset by declines in heavy duty equipment.

Global packaging coatings sales volumes were up a mid-to-high single-digit percentage year-over-year, with at least mid-single digit percentage growth in all regions, driven primarily by continued strong sales growth momentum for new can coatings technologies.

Segment income increased $21 million (+9%) primarily due to lower manufacturing costs including business restructuring benefits, higher sales volumes and acquisition-related income, partially offset by unfavorable foreign currency translation ($5 million).

Looking ahead

We expect 2016 second quarter net sales to be modestly higher sequentially year-over-year, due to business seasonality. We anticipate higher automotive OEM coatings year-over-year sales volumes in the second quarter 2016, aided by improving global industry automotive production and a more moderate prior year comparison. We expect growth trends to continue to improve in the overall general industrial sector in the second quarter 2016; but anticipate varied sub-segment and geographic patterns to remain. We also anticipate sales growth acceleration of packaging coatings new can coating technologies in all regions for the remainder of 2016.

We expect segment acquisition-related sales to be between $35 million and $45 million, for 2015 acquisitions which have not yet reached their one year anniversary. These acquisition-related sales are lower than the first quarter due to the one year anniversary of the Revocoat acquisition, in April 2016. In the second quarter, we expect foreign currency translation to remain unfavorable year-over-year.

Glass

	Three Months Ended March 31		$ Change	% Change
($ in millions, except per share amounts)	**2016**	**2015**	**2016 vs. 2015**	**2016 vs. 2015**
Net sales	$ 261	$ 267	$ (6)	(2.2)%
Segment income	$ 28	$ 30	$ (2)	(6.7)%

2016 vs. 2015

Glass segment net sales decreased (-2%) due to the following:

- *Lower sales volume (-2%)*
- *Lower sales stemming from a prior year flat glass production facility divestiture (-1%)*
- *Unfavorable foreign currency translation (-1%)*

Partially offset by:

- *Higher selling prices (+2%)*

Flat glass sales volumes decreased by a low-single digit percentage reflecting the impact of a scheduled facility outage at the company's Fresno, California facility during the quarter. Sales were also lower year-over-year due to the prior year sale of remaining finished goods from a previously divested flat glass manufacturing facility. Despite the lower sales volumes, underlying flat glass end-use market demand remained solid. Selling prices improved year-over-year.

Fiber glass sales volumes declined modestly year-over-year, as higher demand for automotive and wind energy components in Europe was offset by lower demand in certain U.S. energy-related end-use markets. Selling prices were up slightly year over year.

Segment income decreased $2 million (-7%) due to lower sales volumes, $8 million of repair-related costs for the scheduled Fresno facility outage and lower equity earnings, driven by weaker consumer electronics demand in Asia, partially offset by disciplined cost management.

Looking ahead

We expect increased flat glass demand in the second quarter 2016, due to normal business seasonality and supported by solid U.S. construction demand. Also, the previously announced flat glass selling price increases will be implemented during the second quarter 2016. We anticipate fiber glass demand to be similar to the first quarter of 2016. Further, we expect to incur an additional $4 million of facility-related start-up costs associated with the Fresno facility, which is projected to reach full production capability during the second quarter, as originally communicated. Finally, we expect equity earnings from Asian joint ventures to remain lower year-over-year. In the second quarter, we expect foreign currency translation to remain unfavorable year-over-year.

Liquidity and Capital Resources

PPG had cash and short-term investments totaling approximately $1.0 billion and $1.5 billion at March 31, 2016 and December 31, 2015 , respectively.

Cash from operating activities - continuing operations for the three months ended March 31, 2016 was $59 million . Cash used for operating activities - continuing operations was $429 million for the three months ended March 31, 2015. Operating cash flow compared with prior year increased primarily due to lower pension contributions ($270 million) and improved working capital.

Other uses of cash during the three months ended March 31, 2016 included:

- Capital expenditures, excluding acquisitions, of $77 million , or about 2% of sales.
- Mandatory contributions to PPG's non-U.S. pension plans of $6 million.
- Cash dividends paid totaled $96 million .
- Cash spent on share repurchases totaled $150 million .

In January 2016, PPG's $250 million 1.9% notes matured, and PPG repaid these notes with cash on hand.

In 2016, PPG changed the method it uses to estimate the service and interest cost components of net periodic benefit cost for pension and other postretirement benefit costs for substantially all of its U.S. and foreign plans. Historically, the service and interest cost components were estimated using a single weighted-average discount rate derived from

the yield curve used to measure the projected benefit obligation at the beginning of the period. PPG has elected to use a full yield curve approach ("Split-rate") to estimate these components of benefit cost by applying specific spot rates along the yield curve used to determine the benefit obligation to the relevant projected cash flows. PPG made this change to improve the correlation between projected benefit cash flows and the corresponding yield curve spot rates and to provide a more precise measurement of service and interest costs. This change does not affect the measurement of the Company's total benefit obligations. PPG accounted for this change as a change in estimate and, accordingly, is recognizing its effect prospectively beginning in fiscal year 2016.

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 in this Form 10-Q give retroactive effect to the stock split. These adjustments had no impact on our previously reported net income, total assets, cash flows or shareholders' equity.

Total capital spending in 2016 is expected to be in the range of 3.0% to 3.5% of full year sales. Also, PPG expects to make mandatory contributions to its non-U.S. pension plans in the range of $30 million to $35 million in the remainder of 2016.

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. To date, we have deployed cash of approximately $1.3 billion.

PPG's total debt to equity ratio (total debt, including capital leases, to total debt and PPG shareholders' equity) was 45% at March 31, 2016 and 46% at December 31, 2015 .

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)	March 31, 2016	December 31, 2015	March 31, 2015
Trade Receivables, Net	$ 2,760	$ 2,413	$ 2,625
Inventories, FIFO	2,008	1,868	2,059
Trade Creditors' Liabilities	2,167	1,940	1,966
Operating Working Capital	$ 2,601	$ 2,341	$ 2,718
Operating Working Capital as a % of Sales	17.7%	15.8%	18.6%

Days sales outstanding at March 31, 2016 was 61 days, up from 54 days as of December 31, 2015 . Day sales outstanding as of March 31, 2015 was 59 days.

Other Liquidity Information

	Three Months Ended March 31	
($ in millions)	**2016**	**2015**
Cash outlays for environmental remediation activities	$ 14	$ 36

($ in millions)	Remainder of 2016	Annually 2017 - 2019
Projected future cash outlays for environmental remediation activities	$20 - $35	$25 - $45

In January 2016, all pending appeals of the Pittsburgh Corning Plan of Reorganization were withdrawn. Under the plan, PPG and its participating insurers will make initial contributions to the asbestos trust established by the plan within 30 business days after the plan becomes effective and all conditions to funding have been met. PPG

anticipates that those conditions to funding will be satisfied and funding will take place in the second quarter of 2016. Refer to Note 15, “Commitments and Contingent Liabilities” under Item 1 of this Form 10-Q for additional information.

Currency

Comparing exchange rates from December 31, 2015 to March 31, 2016 , the U.S. dollar weakened against most of the currencies in the countries in which PPG operates, most notably the Euro. As a result, consolidated net assets at March 31, 2016 increased by $48 million, compared to December 31, 2015 . Comparing exchange rates during the first three months of 2016 to those of the first three months of 2015 , the U.S. dollar strengthened against the currencies of most countries in which PPG operates, most notably the Mexican Peso. This had an unfavorable impact on pre-tax income from continuing operations for the three months ended March 31, 2016 of $14 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.

Forward-Looking Statements

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

Consequently, while the list of factors presented here and in the Company's Form 10-K for the year ended December 31, 2015 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, 2015 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

As of March 31, 2016 , PPG had non-U.S. dollar denominated borrowings outstanding of $2.2 billion. As of December 31, 2015 , PPG had non-U.S. dollar denominated borrowings outstanding of $2.1 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 $254 million and $242 million as of March 31, 2016 and December 31, 2015 , respectively.

There were no other material changes in the Company's exposure to market risk from December 31, 2015 to March 31, 2016 . 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 many 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.

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 $397,000. 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 $137,500. 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 March 2016, the Natural Resource Trustees for the Calcasieu River Estuary (Louisiana Department of Environmental Quality, The United States Environmental Protection Agency and the United States Department of the Interior) reached an agreement in principle with PPG and two other potentially responsible parties to resolve the Trustees' claims for natural resource damages alleged to have been caused by the release of hazardous substances into the Estuary. PPG's share of this settlement is $3,600,000.

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, 2015 .

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(a)(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 first quarter of 2016 , the directors, as a group, were credited with 7,052 common stock equivalents under this plan. The value of each common stock equivalent, when credited, ranged from $95.63 to $105.01.

Issuer Purchases of Equity Securities

The following table summarizes the Company's stock repurchase activity for the three months ended March 31, 2016 :

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)
January 2016					
Repurchase program	171,866	$	92.83	171,866	9,503,413
February 2016					
Repurchase program	678,883	$	94.06	678,883	8,703,370
March 2016					
Repurchase program	664,913	$	105.73	664,913	6,905,747
Total quarter ended March 31, 2016					
Repurchase program	1,515,662	$	99.39	1,515,662	6,905,747

(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 38.

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: April 21, 2016

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.

†10.1	Employment arrangement with Jean-Marie Greindl.
†12	Computation of Ratio of Earnings to Fixed Charges for the Three Months Ended March 31, 2016 and for the Five Years Ended December 31, 2015.
†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 months ended March 31, 2016 and 2015, (ii) the Condensed Consolidated Balance Sheet at March 31, 2016 and December 31, 2015, (iii) the Condensed Consolidated Statement of Cash Flows for the three months ended March 31, 2016 and 2015, and (iv) Notes to Condensed Consolidated Financial Statements for the three months ended March 31, 2016.

Exhibit 10.1

PPG Industries

PPG Industries Europe Sàrl
Rte de Gilly 32
1180 Rolle
Switzerland

Phone : +41 21 822 3000
Fax : +41 21 822 3100

Employment Agreement

between **PPG Industries Europe Sàrl, Rolle**

hereinafter: "the Employer"

and **Jean-Marie Greindl**

hereinafter: "the Employee"

concerning Employment as

Vice President Automotive Coatings EMEA

Employment Agreement dated 5 November 2010.

1 Start Date, Position, Duration of Employment

Subject to the obtaining of a valid Swiss work permit, this contract conditions as outlined below will enter into effect only on the date of move to Switzerland, but not later than the 1st of January 2011.

Employee is offered a position and function as Vice President Automotive Coatings EMEA

The assignment in Switzerland will be a continuation of the employee's career in the group and this contract will take into account the accumulated service seniority from earlier PPG Assignments starting October 19, 1987

This contract is established for an indefinite period.

2 Scope of Employment and Duties

Employee shall take on the duties and obligations connected with the role of **VP Automotive Coatings EMEA** in accordance with the terms and conditions of this Employment Agreement, with the articles of association, with the law, with specific instructions given by the Board of the Employer as well as in line with general directives. General directives particularly include the organizational regulations, business policy, guidelines and directives of the PPG Group.

Employee procures to carefully perform the work within his responsibility and to devote all of his business efforts and time to the Employer and PPG Industries.

The continuation or acceptance of any engagement in any other employment, occupation or consulting activity for any direct or indirect remuneration such as consultant, employee or board member, or the exercise of a public office or in a business association, is subject to the prior written approval of the Board of the Employer.

3 Place of Work

Employee will be located at PPG Industries European Headquarters in Rolle, Switzerland.

4 Probation period

Not applicable.

5 Notice period

Contract may be terminated by either party upon giving 3 months written notice as per the end of the month, but for the first time 6 months after start date. Notice of termination has to be given by registered mail (fax or email do not suffice). Such notice is deemed received by the respective party upon delivery or on the first day the notice can be collected at the post office.

6 Working Schedule

40 hours per week.

7 Compensation

Employee shall be entitled to an annual fixed salary of CHF 420'000,- for the above working Schedule, payable in 13 same monthly rates as per the end of the calendar month after deduction of the contributions to social security, pension plans and similar contributions to be borne by Employee as required by applicable laws and regulations. The 13 th monthly salary will be paid out together with the salary for the month of November. For employees commencing or leaving during the year, this payment will be done prorata temporis.

The fixed salary covers the entire working time, including overtime, necessary for carrying out and performing Employee's duties and obligations.

8 Gratifications

Within the framework of the PPG Management Award Bonus Plan (MAP) and depending on the achievement of the defined goals, Employee shall be granted a voluntary target bonus of CHF168'000,- in case the defined goals are achieved by 100%, provided that this Employment Agreement has not been terminated by December 31 of the year considered for the bonus calculation. The payment and the amount of the target bonus are in the sole discretion of PPG and depend on the individual performance of Employee, as well as the European and worldwide business performance of the PPG Group, as per the policy in place.

Any Gratification payments that the Employer grants are always deemed to be voluntary gratifications in the free discretion of the Employer for which Employee does not have a claim and which do not entitle Employee to such payments in the future.

The gratifications, if any, are payable after deduction of the contributions to social security, pension plans and similar contributions to be borne by Employee as required by applicable laws and regulations.

9 Business Expenses

Employee shall be reimbursed for all reasonable business expenses in accordance with the applicable PPG policies in effect from time to time.

10 Other special conditions

Involuntary Employment Termination without cause

- While on Swiss assignment, if employment is terminated by the company for reason other than cause, the employee's termination indemnity applicable in their existing employment agreement immediately prior to the Swiss assignment will be paid: amount calculated at departure of Belgium € 1'604'066,- gross.
- In the event you are terminated without cause within the first 12 months after your relocation to Switzerland, relocation expenses back to Belgium of up to CHF 20'000,-against expenses will be paid to you (these expenses would not be due if you were to be made redundant for cause)

- **Installation premium**
  13 % of gross home annual salary. Will be paid net of taxes at the date of move.
- **Relocation assistance**
  The relocation agency at the host location will provide Swiss assistance for
  - House hunting
  - School search
  - Orientation visit (2 days)
  - Installation support
- **Tax Assistance**
  Tax Counseling and tax return preparation for 3 years with Ernst & Young will be paid by PPG.
- **Health Premium**
  PPG will pay for the employee's and family total health insurance coverage with Intras.
- **Schooling**
  If the employee decides to enroll his children in a private school in Switzerland, PPG will pay the tuition cost to the school as follows:
  - For School year 2011, the tuition fee, inscription and obligatory cost for the 3 children
  - For School year 2011-2012, the tuition fee and obligatory cost for 2 children
  - For School year 2012-2013, the tuition fee and obligatory cost for 1 child
- **Moving Expenses**
  PPG will arrange and cover the cost to transport the employee and family's household goods from home country to Switzerland.
- **Temporary housing**
  PPG will cover the cost of temporary housing up to 3 months.
- **Spouse career transition**
  Support with contracted provider up to CHF 10'000,-
- **Home leave:** Once each year the employee and his family may travel to their home at company expense for a period of 5 years.
- **Company car**
  You will be entitled to a leased company car that can be used for business as well as for private purposes. The costs for operation and maintenance of the company car and all other modalities in connection with the use of the company car are governed by the PPG Group directives in effect.

11 Vacation

Employee shall be entitled to 25 business days of vacation per calendar year. Dates are agreed between both parties and take into account business constraints. Employee will be granted paid holidays on the dates that are officially observed in the Canton de Vaud.

12 Absence from Work

12.1 Information to the Employer

Employee shall inform the Employer immediately about any absence by stating the reasons as well as the probable duration of said absence.

In case of absence due to illness or accident, Employee shall at any time upon request of the Employer, but in any event three days after the beginning of disability to work, present to the Employer a medical certificate about his/her disability to work and the probable duration of said disability. If the disability to work lasts longer than indicated in the medical certificate, a new certificate shall be handed in.

13 Social Security Insurances

Employee confirms to have been informed on the existing social security protection and the apportionment of premiums. Employee agrees to this and has the right to inspection of the relevant insurance documentation.

Employee acknowledges that the Employer is entitled to amend unilaterally at any time that part of the insurance protection which is over the minimum statutory protection (and which may also include a lowering of the insurance protection), provided that this does not lead to an increase of the apportionment of the premiums which has to be paid by Employee.

Reservations of insurance founded in Employee which lead to a reduction or exclusion of insurance benefits do not constitute an obligation of payment of the Employer within the guaranteed insurance benefits. In this case, the obligation to continuation of payments of the Employer is limited to those payments as required by law.

13.1 Social Security, Unemployment and Pension

It is a legal requirement that the Employee contributes to the Swiss state social security scheme (AVS, AI, Unemployment) and join the contributory Company's Pension Fund (LPP) in accordance with the Swiss Legislation and the rules of the Company's Pension Fund.

13.2 Insurances

In accordance with Swiss Law, Employees are insured against professional and non professional accidents and the payment of employee salary is insured in case of accidents and illness. The insurance premiums are entirely paid by PPG Industries.

13.3 Medical insurance

It is mandatory in Switzerland that the Employee takes out a private individual health insurance.

PPG Industries has set-up a collective health insurance with the insurer Intras into which the employee will need to enroll. PPG Industries will participate in the payment of the premiums with a monthly gross amount of CHF 200.- per employee and CHF 50.- for each family member unless other conditions are mentioned on the point 10 of this agreement. All necessary information is available with the Human Resources Department.

13.4 Continued Payment of Salary

In the event Employee is prevented from performing his/her duties under this Employment Agreement, fully or partially, by no fault of his/her own due to illness, accident, fulfillment of legal obligations or public office, Employee shall continue to receive 100% of his/her salary for the duration of a maximum of 720 days.

In case of pregnancy/birth, as per Swiss Law, female employees are entitled to 14 weeks of paid maternity leave from birth and will receive 100% of their salary.

Employee shall immediately notify the Employer about any special risks that are not covered by the general terms of insurance in order to include them in the insurance coverage.

14 Confidentiality

Employee shall treat confidential by and not disclose to others, or take or use for Employee's own purposes or for the purposes of others, any business matters of the Employer and the PPG Group.

Business matters are in particular production secrets and business secrets and all facts which are relevant for the business and which are not known to the public and are of a confidential nature (such as addresses of employees, suppliers and customers, the conclusion of agreements and their terms and conditions, accounting figures and figures of the balance sheet, etc.) or which have been indicated to Employee as being confidential.

These confidentiality obligations are unlimited and will remain effective after the termination of this Employment Agreement, irrespective of the cause of termination.

Employee has to keep in safe custody and surrender upon first request and at the latest at the end of this Employment Agreement, any documentation on business matters of the Employer and of the PPG Group and any copies thereof. In cases where copies cannot be surrendered (for example, in case of digital copies or data carriers or the like) such copies have to be destroyed at the time of request to surrender even if destruction of copies has not been specifically requested.

15 Intellectual Property

All inventions and designs which Employee, solely or jointly with others, makes or contributes to while performing his/her tasks and activities and fulfilling his/her duties under this Employment Agreement, all creations, data, findings, works, computer-programs, labels, methods, documents and any other results of Executive's performance under this Employment Agreement belong exclusively to the Employer regardless as to whether the results can be protected by means of intellectual property law or not. To the amount the Employer is not entitled to the rights of such results on the basis of Art. 332 para. 1 CO Executive herewith assigns and transfers his/her rights to and in connection with such results to the Employer being free to modify and use the results in its own discretion.

The Employer is entitled to acquire from Employee all inventions and designs which Employee, solely or jointly with others, makes or contributes in the course of performing his/her activities

but not in the course of fulfilling his/her duties under this Employment Agreement (hereinafter: "Occasional Invention"). As soon as Employee makes or contributes to Occasional Invention employee shall inform the Employer in writing of Occasional Invention. Thereupon, the Employer has to notify Employee within 6 months in case it intends to acquire Occasional Invention. In case the Employer acquires Occasional Invention Employee is entitled to an appropriate compensation in accordance with the principles set out in Art. 332 para. 4 CO.

During and after the term of his/her Employment, Employee will support the Employer in the process of patenting inventions or registering other intellectual property he has made or contributed to.

16 Data Protection

Employee acknowledges and agrees that the Employer may store, transfer, change as well as destroy all of his personal data in connection with this Employment Agreement. Employee particularly acknowledges and agrees that the Employer has the right to transfer any of his data to other companies of the PPG Group which are inside Switzerland or abroad.

17 Amendments of Employment Agreement, Applicable Law, Place of Jurisdiction

No oral agreements exist in addition to this Employment Agreement. Any amendments or additions to this Employment Agreement must be in writing.

This Employment Agreement shall be governed by the laws of Switzerland.

This Employment Agreement is executed in 2 (two) originals in English. Any disputes arising out of this Employment Agreement have to be submitted to the courts at the domicile or seat of the defendant or at the place where Employee usually carries out his work (Art. 24 para. 1 of the Federal Law on Civil Jurisdiction).

The Employer:

Rolle, 5 November 2010

PPG Industries, Rolle

/s/ Murielle Ertrijckx
Murielle Ertrijckx
HR Manager

Employee:

/s/ Jean-Marie Greindl
Jean-Marie Greindl

ADDENDUM

TO EMPLOYMENT CONTRACT ESTABLISHED ON NOVEMBER 5, 2010 BETWEEN

PPG INDUSTRIES EUROPE SARI AND JEAN-MARIE GREINDL

New Position

Effective March 1, 2013 the employee is taking on the new position of

President PPG EMEA and Vice President Automotive Coatings EMEA

This is a band B position.

In such capacity, Employee shall report to **Cynthia Niekamp,** Senior Vice President Automotive Coatings in his automotive OEM coatings business leadership role and will report to **Michael McGarry** in his EMEA region leadership role.

Compensation

Effective March 1, 2013, the employee shall be entitled to an annual fixed salary of CHF 450'000.- payable in 13 same monthly rates.
This compensation includes the 2013 salary increase of CHF 11'600,-

Bonus/Gratifications

Within the framework of the PPG Management Award Bonus Plan (MAP) and depending on the achievement of the defined goals, Employee shall be granted a voluntary target bonus of **50% of base salary** in case the defined goals are achieved by 100%, provided that this Employment Agreement has not been terminated at the time of payment of the target bonus. The payment and the amount of the target bonus are in the sole discretion of PPG and depend on the individual performance of Employee, as well as the European and worldwide business performance of the PPG Group, as per the policy in place. Individual Bonus component are based for 50% on Automotive results and for 50% on EMEA results.

Any Gratification payments that the Employer grants are always deemed to be voluntary gratifications in the free discretion of the Employer for which Employee does not have a claim and which do not entitle Employee to such payments in the future.

The bonus and gratifications, if any, are payable after deduction of the contributions to social security, pension plans and similar contributions to be borne by Employee as required by applicable laws and regulations.

Long Term Incentive

Your grant will be upgraded to the band B level as per the policy in place and will be subject to a separate communication.

February 2013 granted LTI value is CHF 200'000.-.

Long Term Incentive grant include TSRs.

All other conditions of the contract and addendum established on November 5, 2010 between PPG Industries Sari and Jean-Marie Greindl, remain in effect.

Done in Rolle on February 26, 2013.

/s/ Murielle Ertrijckx
Murielle Ertrijckx
HR Manager Switzerland

Rolle, 12 March 2013

Employee:

/s/ Jean-Marie Greindl
Jean-Marie Greindl

PPG Industries

PPG Industries Europe Sàrl
Route de City 32
1180 Rolle
Switzerland

Phone : +41 21 822 3000
Fax : +41 21 822 3100

Rolle, 28 January 2016

Personal & Confidential
Mr. Jean-Marie Greindl

Dear Jean-Marie,

We are pleased to confirm your appointment, effective 1st March 2016 to the position of **Senior Vice President, Global Architectural Coatings & EMEA, and President PPG EMEA** reporting to Michael McGarry.

Effective 1st March 2016, your new annual base salary will be CHF 520'000.- payable in 13 same monthly rates.

Also the target bonus changes from CHF 240'000 to CHF 312'000 starting 1st March 2016 and a separate statement will be provided to you.

All the other terms and conditions stated in your original contract of employment remain unchanged.

This document is drawn up in two copies. Please sign and return, for agreement, one copy of this letter to Pauline Mathon.

We wish you continuous success and satisfaction in your new role.

Yours sincerely,

/s/ Michael McGarry
Michael McGarry
President and CEO

Read and approved:

/s/ Jean-Marie Greindl
Jean-Marie Greindl

Date: 02/01/16

Exhibit 12

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

	Three Months Ended March 31	Year Ended December 31				
	2016	2015	2014	2013	2012	2011
Earnings:						
Earnings before income taxes and net earnings in equity affiliates	$ 466	$ 1,865	$ 1,308	$ 1,229	$ 814	$ 936
Plus:						
Fixed charges exclusive of capitalized interest	53	213	280	284	281	280
Amortization of capitalized interest	2	6	6	6	6	6
Adjustments for equity affiliates	1	77	5	9	12	19
Total	**$ 522**	**$ 2,161**	**$ 1,599**	**$ 1,528**	**$ 1,113**	**$ 1,241**
Fixed Charges:						
Interest expense incl amortization of debt discount/premium and debt expense	$ 31	$ 126	$ 187	$ 197	$ 210	$ 210
Rentals - portion representative of interest	22	87	93	87	71	70
Fixed charges exclusive of capitalized interest	53	213	280	284	281	280
Capitalized interest	2	9	16	10	8	9
Total	**$ 55**	**$ 222**	**$ 296**	**$ 294**	**$ 289**	**$ 289**
Ratio of earnings to fixed charges	**9.5**	**9.7**	**5.4**	**5.2**	**3.9**	**4.3**

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: April 21, 2016

/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: April 21, 2016

/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 March 31, 2016 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
April 21, 2016

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 March 31, 2016 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)

April 21, 2016

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.