

PRAXAIR INC  
Form 10-Q  
July 28, 2016  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2016

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

PRAXAIR, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

(State or other jurisdiction of incorporation)

1-11037

06-1249050

(Commission File Number)

(IRS Employer Identification No.)

39 OLD RIDGEBURY ROAD, DANBURY, CT 06810-5113

(Address of principal executive offices) (Zip Code)

(203) 837-2000

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

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 (or for such shorter period that the Registrant was required to file such reports), 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 definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐ Accelerated filer ☐

Non-accelerated filer ☐ 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 ☒

At June 30, 2016, 285,231,648 shares of common stock (\$0.01 par value) of the Registrant were outstanding.

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PRAXAIR, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF INCOME  
(Millions of dollars, except per share data)  
(UNAUDITED)

	Quarter Ended June 30,	
	2016	2015
SALES	\$ 2,665	\$ 2,738
Cost of sales, exclusive of depreciation and amortization	1,468	1,516
Selling, general and administrative	308	297
Depreciation and amortization	281	278
Research and development	24	23
Cost reduction program and other charges	—	146
Other income (expense) - net	4	2
OPERATING PROFIT	588	480
Interest expense - net	44	40
INCOME BEFORE INCOME TAXES AND EQUITY INVESTMENTS	544	440
Income taxes	146	131
INCOME BEFORE EQUITY INVESTMENTS	398	309
Income from equity investments	11	10
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	409	319
Less: noncontrolling interests	(10 )	(11 )
NET INCOME - PRAXAIR, INC.	\$ 399	\$ 308
PER SHARE DATA - PRAXAIR, INC. SHAREHOLDERS		
Basic earnings per share	\$ 1.40	\$ 1.07
Diluted earnings per share	\$ 1.39	\$ 1.06
Cash dividends per share	\$ 0.75	\$ 0.715
WEIGHTED AVERAGE SHARES OUTSTANDING (000's):		
Basic shares outstanding	285,702	287,939
Diluted shares outstanding	287,727	290,102

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

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PRAXAIR, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF INCOME  
(Millions of dollars, except per share data)  
(UNAUDITED)

	Six Months Ended June 30,	
	2016	2015
SALES	\$5,174	\$5,495
Cost of sales, exclusive of depreciation and amortization	2,849	3,046
Selling, general and administrative	582	596
Depreciation and amortization	553	555
Research and development	47	47
Cost reduction program and other charges	—	146
Other income (expense) - net	(1)	(2)
OPERATING PROFIT	1,142	1,103
Interest expense - net	109	84
INCOME BEFORE INCOME TAXES AND EQUITY INVESTMENTS	1,033	1,019
Income taxes	279	293
INCOME BEFORE EQUITY INVESTMENTS	754	726
Income from equity investments	21	21
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	775	747
Less: noncontrolling interests	(20)	(23)
NET INCOME - PRAXAIR, INC.	\$755	\$724
PER SHARE DATA - PRAXAIR, INC. SHAREHOLDERS		
Basic earnings per share	\$2.64	\$2.51
Diluted earnings per share	\$2.63	\$2.49
Cash dividends per share	\$1.50	\$1.43
WEIGHTED AVERAGE SHARES OUTSTANDING (000's):		
Basic shares outstanding	285,566	288,541
Diluted shares outstanding	287,426	290,940

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

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## PRAXAIR, INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(Millions of dollars)

(UNAUDITED)

	Quarter Ended June	
	30,	
	2016	2015
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	\$ 409	\$ 319
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	97	70
Income taxes	(27)	) 21
Translation adjustments	70	91
Funded status - retirement obligations (Note 11):		
Retirement program remeasurements	(19)	) (32)
Reclassifications to net income	15	20
Income taxes	2	4
Funded status - retirement obligations	(2)	) (8)
Derivative instruments (Note 6):		
Current quarter unrealized gain (loss)	—	—
Reclassifications to net income	(1)	) —
Income taxes	1	—
Derivative instruments	—	—
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	68	83
COMPREHENSIVE INCOME (LOSS) (INCLUDING NONCONTROLLING INTERESTS)	477	402
Less: noncontrolling interests	(2)	) (21)
COMPREHENSIVE INCOME (LOSS) - PRAXAIR, INC.	\$ 475	\$ 381
The accompanying notes are an integral part of these financial statements.		

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PRAXAIR, INC. AND SUBSIDIARIES  
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME  
(Millions of dollars)  
(UNAUDITED)

	Six Months Ended June 30,	
	2016	2015
NET INCOME (INCLUDING NONCONTROLLING INTERESTS)	\$775	\$747
OTHER COMPREHENSIVE INCOME (LOSS)		
Translation adjustments:		
Foreign currency translation adjustments	439	(574 )
Income taxes	(11 )	(13 )
Translation adjustments	428	(587 )
Funded status - retirement obligations (Note 11):		
Retirement program remeasurements	(24 )	(23 )
Reclassifications to net income	29	39
Income taxes	(3 )	(6 )
Funded status - retirement obligations	2	10
Derivative instruments (Note 6):		
Current period unrealized gain (loss)	—	—
Reclassifications to net income	(1 )	—
Income taxes	1	—
Derivative instruments	—	—
TOTAL OTHER COMPREHENSIVE INCOME (LOSS)	430	(577 )
COMPREHENSIVE INCOME (INCLUDING NONCONTROLLING INTERESTS)	1,205	170
Less: noncontrolling interests	(28 )	(3 )
COMPREHENSIVE INCOME - PRAXAIR, INC.	\$1,177	\$167
The accompanying notes are an integral part of these financial statements.		

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PRAXAIR, INC. AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED BALANCE SHEETS  
 (Millions of dollars)  
 (UNAUDITED)

	June 30, 2016	December 31, 2015
<b>ASSETS</b>		
Cash and cash equivalents	\$567	\$147
Accounts receivable - net	1,741	1,601
Inventories	559	531
Prepaid and other current assets	396	347
<b>TOTAL CURRENT ASSETS</b>	<b>3,263</b>	<b>2,626</b>
Property, plant and equipment (less accumulated depreciation of \$12,433 in 2016 and \$11,696 in 2015)	11,578	10,998
Goodwill	3,149	2,986
Other intangible assets - net	612	568
Other long-term assets	1,209	1,141
<b>TOTAL ASSETS</b>	<b>\$19,811</b>	<b>\$18,319</b>
<b>LIABILITIES AND EQUITY</b>		
Accounts payable	\$870	\$791
Short-term debt	757	250
Current portion of long-term debt	9	6
Other current liabilities	822	846
<b>TOTAL CURRENT LIABILITIES</b>	<b>2,458</b>	<b>1,893</b>
Long-term debt	9,190	8,975
Other long-term liabilities	2,604	2,545
<b>TOTAL LIABILITIES</b>	<b>14,252</b>	<b>13,413</b>
Commitments and contingencies (Note 12)		
Redeemable noncontrolling interests (Note 14)	12	113
Praxair, Inc. Shareholders' Equity:		
Common stock \$0.01 par value, authorized - 800,000,000 shares, issued 2016 and 2015 - 383,230,625 shares	4	4
Additional paid-in capital	4,005	4,005
Retained earnings	12,559	12,229
Accumulated other comprehensive income (loss) (Note 14)	(4,174 )	(4,596 )
Less: Treasury stock, at cost (2016 - 97,998,977 shares and 2015 - 98,351,546 shares)	(7,254 )	(7,253 )
<b>Total Praxair, Inc. Shareholders' Equity</b>	<b>5,140</b>	<b>4,389</b>
Noncontrolling interests	407	404
<b>TOTAL EQUITY</b>	<b>5,547</b>	<b>4,793</b>
<b>TOTAL LIABILITIES AND EQUITY</b>	<b>\$19,811</b>	<b>\$18,319</b>

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



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PRAXAIR, INC. AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
 (Millions of dollars)  
 (UNAUDITED)

	Six Months Ended June 30,	
	2016	2015
<b>OPERATIONS</b>		
Net income - Praxair, Inc.	\$755	\$724
Noncontrolling interests	20	23
Net income (including noncontrolling interests)	775	747
Adjustments to reconcile net income to net cash provided by operating activities:		
Cost reduction program and other charges, net of payments	—	135
Depreciation and amortization	553	555
Deferred income taxes	4	(17 )
Share-based compensation	22	17
Working capital:		
Accounts receivable	(61 )	(44 )
Inventory	(8 )	(15 )
Prepaid and other current assets	2	(31 )
Payables and accruals	(63 )	(63 )
Pension contributions	(6 )	(12 )
Long-term assets, liabilities and other	41	(44 )
Net cash provided by operating activities	1,259	1,228
<b>INVESTING</b>		
Capital expenditures	(680 )	(749 )
Acquisitions, net of cash acquired	(325 )	(43 )
Divestitures and asset sales	8	240
Net cash used for investing activities	(997 )	(552 )
<b>FINANCING</b>		
Short-term debt borrowings (repayments) - net	508	(53 )
Long-term debt borrowings	908	756
Long-term debt repayments	(726 )	(502 )
Issuances of common stock	60	61
Purchases of common stock	(83 )	(469 )
Cash dividends - Praxair, Inc. shareholders	(428 )	(412 )
Excess tax benefit on share-based compensation	—	17
Noncontrolling interest transactions and other	(109 )	(38 )
Net cash provided by (used for) financing activities	130	(640 )
Effect of exchange rate changes on cash and cash equivalents	28	(26 )
Change in cash and cash equivalents	420	10
Cash and cash equivalents, beginning-of-period	147	126
Cash and cash equivalents, end-of-period	\$567	\$136
The accompanying notes are an integral part of these financial statements.		

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PRAXAIR, INC. AND SUBSIDIARIES

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(UNAUDITED)

1. Summary of Significant Accounting Policies

Presentation of Condensed Consolidated Financial Statements - In the opinion of Praxair, Inc. (Praxair) management, the accompanying condensed consolidated financial statements include all adjustments necessary for a fair presentation of the results for the interim periods presented and such adjustments are of a normal recurring nature. The accompanying condensed consolidated financial statements should be read in conjunction with the notes to the consolidated financial statements of Praxair, Inc. and subsidiaries in Praxair's 2015 Annual Report on Form 10-K. There have been no material changes to the company's significant accounting policies during 2016.

Accounting Standards Implemented in 2016

Accounting for Share-based Compensation - In June 2014, the FASB issued updated guidance on the accounting for share-based payments when the terms of an award provide that a performance target could be achieved after the requisite service period. The adoption of this guidance did not have a significant impact on the condensed consolidated financial statements.

Improvements to Employee Share-Based Payment Accounting - In March 2016, the FASB issued updated guidance on the accounting for employee share-based payments. The new guidance, among other changes, requires that all excess tax benefits and deficiencies associated with share-based payment awards be recorded in Income taxes in the statement of income in the period in which they occur, and within operating cash flows. Previously, such excess tax benefits were recorded as direct credits to equity (not via the statement of income), and as financing cash flows. Effective in the second quarter 2016, Praxair elected to adopt the requirements of this new accounting standard. Accordingly, income tax expense for the 2016 quarter and six-month periods, and operating cash flows for the 2016 six-month period include \$10 million of excess tax benefits. For this change relating to excess tax benefits, Praxair did not adjust 2016 first-quarter amounts because the impact was not material, and the Company elected not to adjust prior-year cash flow presentations.

The new standard also amends the condensed consolidated statement of cash flows by requiring that cash paid to taxing authorities at settlement arising from the withholding of shares from employees be classified in cash flows from financing activities (such amounts were previously included in cash flows from operating activities). This portion of the standard was required to be adopted on a retrospective basis. Accordingly, \$6 million of such cash paid to taxing authorities during the first quarter 2016 was reclassified from operating to financing cash flows, and \$13 million was similarly reclassified for the six months ended June 30, 2015.

Accounting Standards to be Implemented

Revenue Recognition - In May 2014, the FASB issued updated guidance on the reporting and disclosure of revenue. The new guidance requires the evaluation of contracts with customers to determine the recognition of revenue when or as the entity satisfies a performance obligation, and would require expanded disclosures. Subsequently, the FASB has issued amendments to certain aspects of the guidance including the effective date. This guidance is required to be effective beginning in the first quarter 2018 (with early adoption beginning in 2017 optional) and includes several transition options. Praxair is currently in the process of reviewing the new guidance and will provide updates on the expected impact to Praxair in future filings, as determined.

Simplifying the Measurement of Inventory - In July 2015, the FASB issued updated guidance on the measurement of inventory. The new guidance requires that inventory be measured at the lower of cost or net realizable value. Currently inventory is measured at the lower of cost or market. This new guidance will be effective for Praxair beginning in the first quarter 2017 on a prospective basis, with early adoption optional. Praxair does not expect this requirement to have a material impact.

Balance Sheet Classification of Deferred Taxes - In November 2015, the FASB issued updated guidance on the balance sheet classification of deferred taxes. Currently deferred income tax liabilities and assets are required to be separated and classified as current or non-current in a classified balance sheet. The amendments in this update require that deferred tax liabilities and assets be classified as non-current in a classified balance sheet. This new guidance will

be effective for Praxair beginning in the first quarter 2017, with early adoption optional. The new guidance may be applied either prospectively or retrospectively. Praxair does not expect this requirement to have a material impact.

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**Leases** – In February 2016, the FASB issued updated guidance on the accounting and financial statement presentation of leases. The new guidance requires lessees to recognize a right-of-use asset and lease liability for all leases, except those that meet certain scope exceptions, and would require expanded quantitative and qualitative disclosures. This guidance will be effective for Praxair beginning in the first quarter 2019, with early adoption optional, and requires companies to transition using a modified retrospective approach. Praxair is in the early stages of reviewing the new guidance and will provide updates on the expected impact to Praxair in future filings, as determined.

**Reclassifications** – Certain prior years' amounts have been reclassified to conform to the current year's presentation, including reclassifications to the condensed consolidated statement of cash flows due to the adoption of the new share-based compensation standard.

## 2. Cost Reduction Program and Other Charges

### 2015 Cost Reduction Program

In the second quarter of 2015, Praxair recorded pre-tax charges totaling \$146 million (\$112 million after-tax and noncontrolling interests or \$0.39 per diluted share) and in the third quarter recorded pre-tax charges totaling \$19 million (\$13 million after-tax or \$0.04 per diluted share). The charges related primarily to severance and other costs associated with a cost reduction program, which was initiated in response to lower volumes resulting from economic slowdown in emerging markets and energy related end-markets.

The following table summarizes the activities related to the six months ended June 30, 2016:

(millions of dollars)	Severance costs	Other Charges	Total
Balance, January 1, 2016	\$ 30	\$ 20	\$50
Less: Cash payments	\$ (17 )	\$ (3 )	\$(20)
Foreign currency translation	\$ 1	\$ —	\$1
Balance, June 30, 2016	\$ 14	\$ 17	\$31

For further details regarding the cost reduction program and other charges, refer to Note 2 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K.

## 3. Acquisitions

### 2016 Acquisitions

During the six months ended June 30, 2016, Praxair had acquisitions totaling \$325 million, primarily the acquisition of Yara International ASA's European carbon dioxide business ("European CO2 business") and packaged gases businesses in North America and Europe. These transactions resulted in goodwill and other intangible assets of \$118 million and \$72 million, respectively (see Note 9). In addition, Praxair purchased a remaining 34% share in a Scandinavian joint venture for \$104 million (see Note 14).

### European CO2 Acquisition

On June 1, 2016 Praxair, Inc. completed its acquisition of the European CO2 business, a leading supplier of liquid CO2 and dry ice primarily to the European food and beverage industries. The business operates CO2 liquefaction plants and dry ice production facilities across the UK, Ireland, Norway, Denmark, Germany, Netherlands, Belgium, France and Italy. This acquisition was accounted for as a business combination; accordingly, the results of operations were consolidated from June 1, 2016 in the European business segment and the impact was not significant.

The purchase price for the acquisition was approximately \$230 million (€206 million) and resulted in \$126 million of intangible assets. The intangible assets primarily consist of \$66 million of Goodwill and \$56 million of customer relationships that will be amortized over their estimated useful life of 20 years. The allocation of the purchase price is based on preliminary



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estimates and assumptions, which are subject to revision based on final information received, including appraisals and other analysis that support underlying estimates. Currently, any potential adjustments are not expected to be material 2015 Acquisitions

During the six months ended June 30, 2015, Praxair had acquisitions totaling \$43 million, primarily acquisitions of packaged gases businesses in North and South America. These transactions resulted in goodwill and other intangible assets of \$28 million and \$10 million, respectively.

#### 4. Supplemental Information

##### Inventories

The following is a summary of Praxair's consolidated inventories:

(Millions of dollars)	June 30, December 31,	
	2016	2015
Inventories		
Raw materials and supplies	\$ 211	\$ 202
Work in process	46	48
Finished goods	302	281
Total inventories	\$ 559	\$ 531

##### Long-term receivables

Long-term receivables are not material and are largely reserved. Such long-term receivables are included within other long-term assets in the condensed consolidated balance sheets and totaled \$38 million and \$33 million at June 30, 2016 and December 31, 2015, respectively. These amounts are net of reserves of \$45 million and \$35 million, respectively. The amounts in both periods relate primarily to government receivables in Brazil and other long-term notes receivable from customers. Collectability is reviewed regularly and uncollectible amounts are written off as appropriate. The account balance changes during 2016 were primarily due to foreign exchange rate movements.

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## 5. Debt

The following is a summary of Praxair's outstanding debt at June 30, 2016 and December 31, 2015:

(Millions of dollars)	June 30, 2016	December 31, 2015
SHORT-TERM		
Commercial paper and U.S. bank borrowings	\$566	\$ 87
Other bank borrowings (primarily international)	191	163
Total short-term debt	757	250
LONG-TERM (a)		
U.S. borrowings (U.S. dollar denominated unless otherwise noted)		
0.75% Notes due 2016 (b)	—	400
5.20% Notes due 2017 (b)	—	325
Floating Rate Notes due 2017 (c)	150	150
1.05% Notes due 2017	399	399
1.20% Notes due 2018	499	499
1.25% Notes due 2018 (d)	486	480
4.50% Notes due 2019	597	597
1.90% Notes due 2019	499	499
1.50% Euro-denominated notes due 2020	661	646
2.25% Notes due 2020	299	298
4.05% Notes due 2021	497	497
3.00% Notes due 2021	496	496
2.45% Notes due 2022	597	596
2.20% Notes due 2022	498	497
2.70% Notes due 2023	497	497
1.20% Euro-denominated notes due 2024 (e)	607	—
2.65% Notes due 2025	397	396
1.625% Euro-denominated notes due 2025	548	535
3.20% Notes due 2026 (e)	725	446
3.55% Notes due 2042	661	661
Other	12	3
International bank borrowings	66	57
Obligations under capital leases	8	7
	9,199	8,981
Less: current portion of long-term debt	(9	) (6
Total long-term debt	9,190	8,975
Total debt	\$9,956	\$ 9,231

(a) Amounts are net of unamortized discounts, premiums and/or debt issuance costs as applicable.

In February 2016, Praxair repaid \$400 million of 0.75% notes that became due. Also in February 2016, Praxair (b) redeemed \$325 million of 5.20% notes due March 2017 resulting in a \$16 million interest charge (\$10 million after-tax, or \$0.04 per diluted share).

(c) Classified as long-term because of the company's intent to refinance this debt on a long-term basis and the availability of such financing under the terms of an existing \$2.5 billion long-term credit facility.

June 30, 2016 and December 31, 2015 include a \$12 million and \$6 million fair value increase, respectively, (d) related to hedge accounting. See Note 6 for additional information.

(e) In February 2016, Praxair issued €550 million of 1.20% Euro-denominated notes due 2024. In addition, Praxair issued \$275 million of 3.20% notes due 2026. The proceeds of these debt issuances were used for general corporate purposes, including acquisitions, repayment of debt and share repurchases under the company's share repurchase



program.

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## 6. Financial Instruments

In its normal operations, Praxair is exposed to market risks relating to fluctuations in interest rates, foreign currency exchange rates, energy costs and to a lesser extent precious metal prices. The objective of financial risk management at Praxair is to minimize the negative impact of such fluctuations on the company's earnings and cash flows. To manage these risks, among other strategies, Praxair routinely enters into various derivative financial instruments ("derivatives") including interest-rate swap and treasury rate lock agreements, currency-swap agreements, forward contracts, currency options, and commodity-swap agreements. These instruments are not entered into for trading purposes and Praxair only uses commonly traded and non-leveraged instruments.

There are three types of derivatives that the company enters into: (i) those relating to fair-value exposures, (ii) those relating to cash-flow exposures, and (iii) those relating to foreign currency net investment exposures. Fair-value exposures relate to recognized assets or liabilities, and firm commitments; cash-flow exposures relate to the variability of future cash flows associated with recognized assets or liabilities, or forecasted transactions; and net investment exposures relate to the impact of foreign currency exchange rate changes on the carrying value of net assets denominated in foreign currencies.

When a derivative is executed and hedge accounting is appropriate, it is designated as either a fair-value hedge, cash-flow hedge, or a net investment hedge. Currently, Praxair designates all interest-rate and treasury-rate locks as hedges for accounting purposes; however, currency contracts are generally not designated as hedges for accounting purposes unless they are related to forecasted transactions. Whether designated as hedges for accounting purposes or not, all derivatives are linked to an appropriate underlying exposure. On an ongoing basis, the company assesses the hedge effectiveness of all derivatives designated as hedges for accounting purposes to determine if they continue to be highly effective in offsetting changes in fair values or cash flows of the underlying hedged items. If it is determined that the hedge is not highly effective, then hedge accounting will be discontinued prospectively.

Counterparties to Praxair's derivatives are major banking institutions with credit ratings of investment grade or better and no collateral is required, and there are no significant risk concentrations. Management believes the risk of incurring losses on derivative contracts related to credit risk is remote and any losses would be immaterial.

The following table is a summary of the notional amount and fair value of derivatives outstanding at June 30, 2016 and December 31, 2015 for consolidated subsidiaries:

(Millions of dollars)	Notional Amounts		Fair Value			
	June 30, 2016	December 31, 2015	Assets June 30, 2016	Assets December 31, 2015	Liabilities June 30, 2016	Liabilities December 31, 2015
Derivatives Not Designated as Hedging Instruments:						
Currency contracts:						
Balance sheet items (a)	\$2,433	\$ 2,548	\$53	\$ 15	\$ 10	\$ 11
Derivatives Designated as Hedging Instruments:						
Currency contracts:						
Balance sheet items (a)	\$38	\$ 38	\$—	\$ 1	\$—	\$ —
Interest rate contracts:						
Interest rate swaps (b)	475	475	12	6	—	—
Total Hedges	\$513	\$ 513	\$12	\$ 7	\$—	\$ —
Total Derivatives	\$2,946	\$ 3,061	\$65	\$ 22	\$ 10	\$ 11

(a) Assets are recorded in prepaid and other current assets, and liabilities are recorded in other current liabilities.

(b) Assets are recorded in other long term assets

## Currency Contracts

Foreign currency contracts related to balance sheet items consist of forward contracts entered into to manage the exposure to fluctuations in foreign-currency exchange rates on recorded balance sheet assets and liabilities denominated in currencies other than the functional currency of the related operating unit. Certain forward currency contracts are entered into to protect underlying monetary assets and liabilities denominated in foreign currencies from

foreign exchange risk and are not designated as hedging instruments. The fair value adjustments on these contracts are offset by the fair value adjustments recorded on the underlying monetary assets and liabilities. Praxair also enters into forward currency contracts, which are designated as hedging

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instruments, to limit the cash flow exposure on certain foreign-currency denominated intercompany loans. The fair value adjustments on these contracts are recorded to AOCI, with the effective portion immediately reclassified to earnings to offset the fair value adjustments on the underlying debt instrument.

## Net Investment Hedge

In 2014 Praxair designated the €600 million (\$661 million as of June 30, 2016) 1.50% Euro-denominated notes due 2020 and the €500 million (\$548 million as of June 30, 2016) 1.625% Euro-denominated notes due 2025, as a hedge of the net investment position in its European operations. In 2016 Praxair designated an incremental €550 million (\$607 million as of June 30, 2016) 1.20% Euro-denominated notes due 2024 as an additional hedge of the net investment position in its European operations. These Euro-denominated debt instruments reduce the company's exposure to changes in the currency exchange rate on investments in foreign subsidiaries with Euro functional currencies. Since hedge inception, exchange rate movements have reduced long-term debt by \$242 million (long-term debt increased by \$19 million during the first two quarters of 2016), with the offsetting gain shown within the cumulative translation component of AOCI in the condensed consolidated balance sheets and the condensed consolidated statements of comprehensive income.

## Interest Rate Contracts

## Outstanding Interest Rate Swaps

At June 30, 2016, Praxair had one outstanding interest rate swap agreement with a \$475 million notional amount related to the \$475 million 1.25% notes that mature in 2018. The interest rate swap effectively converts fixed-rate interest to variable-rate interest and is designated as a fair value hedge. Fair value adjustments are recognized in earnings along with an equally offsetting charge / benefit to earnings for the changes in the fair value of the underlying debt instrument. At June 30, 2016, \$12 million was recognized as an increase in the fair value of these notes (\$6 million at December 31, 2015).

## Terminated Treasury Rate Locks

The following table summarizes the unrecognized gains (losses) related to terminated treasury rate lock contracts:

(Millions of dollars)	Year Terminated	Original Gain / (Loss)	Unrecognized June 30, 2016	Gain / (Loss) (a) December 31, 2015
<b>Treasury Rate Locks</b>				
<b>Underlying debt instrument:</b>				
\$500 million 2.20% fixed-rate notes that mature in 2022 (b)	2012	\$ (2 )	\$ (1 )	\$ (1 )
\$500 million 3.00% fixed-rate notes that mature in 2021 (b)	2011	(11 )	(6 )	(6 )
\$600 million 4.50% fixed-rate notes that mature in 2019 (b)	2009	16	5	6
Total - pre-tax			\$ (2 )	\$ (1 )
Less: income taxes			1	—
After- tax amounts			\$ (1 )	\$ (1 )

The unrecognized gains / (losses) for the treasury rate locks are shown in accumulated other comprehensive income ("AOCI") and are being recognized on a straight line basis to interest expense – net over the term of the underlying debt agreements. Refer to the table below summarizing the impact on the company's consolidated statements of income and AOCI for current period gain (loss) recognition.

The notional amount of the treasury rate lock contracts are equal to the underlying debt instrument with the exception of the treasury rate lock contract entered into to hedge the \$600 million 4.50% fixed-rate notes that mature in 2019. The notional amount of this contract was \$500 million.



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The following table summarizes the impact of the company's derivatives on the consolidated statements of income and AOCI:

	Amount of Pre-Tax Gain (Loss) Recognized in Earnings *			
	Quarter Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
(Millions of dollars)				
Derivatives Not Designated as Hedging Instruments				
Currency contracts:				
Balance sheet items				
Debt-related	\$ 16	\$ 1	\$ 83	\$ (78 )
Other balance sheet items	1	1	3	(5 )
Total	\$ 17	\$ 2	\$ 86	\$ (83 )

\* The gains (losses) on balance sheet items are offset by gains (losses) recorded on the underlying hedged assets and liabilities. Accordingly, the gains (losses) for the derivatives and the underlying hedged assets and liabilities related to debt items are recorded in the consolidated statements of income as interest expense-net. Other balance sheet items and anticipated net income gains (losses) are recorded in the consolidated statements of income as other income (expenses)-net.

The following tables summarize the impacts of the company's derivatives designated as hedging instruments that impact AOCI:

## Derivatives Designated as Hedging Instruments \*\*

	Quarter Ended			
	Amount of Gain (Loss) Reclassified from AOCI to the Consolidated Statement Recognized in AOCI		Amount of Gain (Loss) Recognized in Income	
	June 30, 2016	June 30, 2015	June 30, 2016	June 30, 2015
(Millions of dollars)				
Currency contracts:				
Balance sheet items	\$ —	\$ —	—	\$ —
Net Investment Hedge	—	—	—	—
Interest rate contracts:				
Treasury rate lock contracts	—	—	(1 )	—
Total - pre tax	\$ —	\$ —	(1 )	\$ —
Less: income taxes	—	—	1	—
Total - Net of Taxes	\$ —	\$ —	—	\$ —

## Six Months Ended

	Amount of Gain (Loss) Reclassified from AOCI to the Consolidated Statement Recognized in AOCI		Amount of Gain (Loss) Recognized in Income	

(Millions of dollars)

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	June 30, 2016	June 30, 2015	June 30, 2016		June 30, 2015
Currency contracts:					
Balance sheet items	\$ —	\$ —	\$ —		\$ —
Net Investment Hedge	(4 )	—	—		—
Interest rate contracts:					
Treasury rate lock contracts	—	—	(1 )		—
Total - pre tax	\$ (4 )	\$ —	\$ (1 )		\$ —
Less: income taxes	1	—	1		—
Total - Net of Taxes	\$ (3 )	\$ —	\$ —		\$ —

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\*\*The gains (losses) on net investment hedges are recorded as a component of AOCI within foreign currency translation adjustments in the condensed consolidated balance sheets and the condensed consolidated statements of comprehensive income. The gains (losses) on treasury rate locks are recorded as a component of AOCI within derivative instruments in the condensed consolidated balance sheets and the condensed consolidated statements of comprehensive income. There was no ineffectiveness for these instruments during 2016 or 2015. The gains (losses) on net investment hedges are reclassified to earnings only when the related currency translation adjustments are required to be reclassified, usually upon sale or liquidation of the investment. The gains (losses) for interest rate contracts are reclassified to earnings as interest expense –net on a straight-line basis over the remaining maturity of the underlying debt. Net losses of less than \$2 million are expected to be reclassified to earnings during the next twelve months.



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## 7. Fair Value Disclosures

The fair value hierarchy prioritizes the input to valuation techniques used to measure fair value into three broad levels as follows:

Level 1 – quoted prices in active markets for identical assets or liabilities

Level 2 – quoted prices for similar assets and liabilities in active markets or inputs that are observable

Level 3 – inputs that are unobservable (for example cash flow modeling inputs based on assumptions)

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The following table summarizes assets and liabilities measured at fair value on a recurring basis:

(Millions of dollars)	Fair Value Measurements Using				
	Level 1	Level 2		Level 3	
	December 31, 2016	June 30, 2016	December 31, 2015	June 30, 2016	December 31, 2015
Assets					
Derivatives	—	\$ 65	\$ 22	—	—
Liabilities					
Derivatives	—	\$ 10	\$ 11	—	—

The fair values of the derivative assets and liabilities are based on market prices obtained from independent brokers or determined using quantitative models that use as their basis readily observable market parameters that are actively quoted and can be validated through external sources, including third-party pricing services, brokers and market transactions. Investments are marketable securities traded on an exchange.

The fair values of cash and cash equivalents, short-term debt, accounts receivable-net, and accounts payable approximate carrying amounts because of the short maturities of these instruments. The fair value of long-term debt is estimated based on the quoted market prices for similar issues, which is deemed a level 2 measurement. At June 30, 2016, the estimated fair value of Praxair's long-term debt portfolio was \$9,651 million versus a carrying value of \$9,199 million. At December 31, 2015, the estimated fair value of Praxair's long-term debt portfolio was \$9,069 million versus a carrying value of \$8,981 million. Differences from carrying amounts are attributable to interest-rate changes subsequent to when the debt was issued.

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## 8. Earnings Per Share – Praxair, Inc. Shareholders

Basic earnings per share is computed by dividing Net income – Praxair, Inc. for the period by the weighted average number of Praxair common shares outstanding. Diluted earnings per share is computed by dividing Net income – Praxair, Inc. for the period by the weighted average number of Praxair common shares outstanding and dilutive common stock equivalents, as follows:

	Quarter Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Numerator (Millions of dollars)				
Net income - Praxair, Inc.	\$ 399	\$ 308	\$755	\$ 724
Denominator (Thousands of shares)				
Weighted average shares outstanding	285,314	287,535	285,182	288,142
Shares earned and issuable under compensation plans	388	404	384	399
Weighted average shares used in basic earnings per share	285,702	287,939	285,566	288,541
Effect of dilutive securities				
Stock options and awards	2,025	2,163	1,860	2,399
Weighted average shares used in diluted earnings per share	287,727	290,102	287,426	290,940
Basic Earnings Per Share	\$ 1.40	\$ 1.07	\$2.64	\$ 2.51
Diluted Earnings Per Share	\$ 1.39	\$ 1.06	\$2.63	\$ 2.49

Stock options of 2,637,160 and 5,174,451 for the quarter and six months ended June 30, 2016 and stock options of 2,763,770 and 2,762,255 for the quarter and six months ended June 30, 2015 were antidilutive and therefore excluded in the computation of diluted earnings per share.

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## 9. Goodwill and Other Intangible Assets

Changes in the carrying amount of goodwill for the six months ended June 30, 2016 were as follows:

(Millions of dollars)	North America	South America	Europe	Asia	Surface Technologies	Total
Balance, December 31, 2015	\$ 2,111	\$ 98	\$ 582	\$ 59	\$ 136	\$2,986
Acquisitions (Note 3)	51	—	67	—	—	118
Purchase adjustments & other	7	—	—	—	2	9
Foreign currency translation	2	27	7	—	—	36
Balance, June 30, 2016	\$ 2,171	\$ 125	\$ 656	\$ 59	\$ 138	\$3,149

Praxair has performed its goodwill impairment tests annually during the second quarter of each year, and historically has determined that the fair value of each of its reporting units was substantially in excess of its carrying value. For the 2016 test completed this quarter, Praxair applied the FASB's accounting guidance (refer to Note 1 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K) which allows the Company to first assess qualitative factors to determine the extent of additional quantitative analysis, if any, that may be required to test goodwill for impairment. Based on the qualitative assessments performed, Praxair concluded that it was more likely than not that the fair value of each reporting unit substantially exceeded its carrying value and therefore, further quantitative analysis was not required. As a result, no impairment was recorded. There were no indicators of impairment through June 30, 2016.

Changes in the carrying amounts of other intangibles for the six months ended June 30, 2016 were as follows:

(Millions of dollars)	Customer & License/Use Agreements	Non-compete Agreements	Patents & Other	Total
Cost:				
Balance, December 31, 2015	\$ 698	\$ 38	\$ 47	\$783
Additions (Note 3)	63	4	5	72
Foreign currency translation	(2 )	—	(1 )	(3 )
Other	—	(7 )	—	(7 )
Balance, June 30, 2016	\$ 759	\$ 35	\$ 51	\$845
Less: Accumulated amortization				
Balance, December 31, 2015	\$ (179 )	\$ (23 )	\$ (13 )	\$(215)
Amortization expense	(20 )	(3 )	(2 )	(25 )
Foreign currency translation	—	—	—	—
Other	—	7	—	7
Balance, June 30, 2016	\$ (199 )	\$ (19 )	\$ (15 )	\$(233)
Net balance at June 30, 2016	\$ 560	\$ 16	\$ 36	\$612

There are no expected residual values related to these intangible assets. The remaining weighted-average amortization period for intangible assets is approximately 18 years.

Total estimated annual amortization expense is as follows:

(Millions of dollars)	
Remaining 2016	\$27
2017	47
2018	43
2019	40
2020	39
Thereafter	416
	\$612



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## 10. Share-Based Compensation

Share-based compensation of \$14 million (\$10 million after-tax) and \$10 million (\$7 million after-tax) was recognized during the quarters ended June 30, 2016 and 2015, respectively. Share-based compensation of \$22 million (\$16 million after-tax) and \$17 million (\$12 million after-tax) was recognized during the six months ended June 30, 2016 and 2015, respectively. Expense amounts reflect current estimates of achieving performance targets relating to performance-based compensation. The expense was recorded primarily in selling, general and administrative expenses. There was no share-based compensation cost that was capitalized. For further details regarding Praxair's share-based compensation arrangements and prior-year grants, refer to Note 15 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K.

## Stock Options

The weighted-average fair value of options granted during the six months ended June 30, 2016 was \$8.91 (\$11.99 in 2015) based on the Black-Scholes Options-Pricing model. The decrease in grant date fair value year-over-year is primarily attributable to a decrease in the company's stock price.

The following weighted-average assumptions were used to value the grants in 2016 and 2015:

	Six Months Ended June 30,	
	2016	2015
Dividend yield	2.9 %	2.2 %
Volatility	14.4 %	13.5 %
Risk-free interest rate	1.41 %	1.51 %
Expected term years	6	5

The following table summarizes option activity under the plans as of June 30, 2016 and changes during the six-month period then ended (averages are calculated on a weighted basis; life in years; intrinsic value expressed in millions):

	Number of Options (000's)	Average Exercise Price	Average Remaining Life	Aggregate Intrinsic Value
Outstanding at January 1, 2016	11,273	\$ 96.58		
Granted	2,468	102.22		
Exercised	(913 )	65.02		
Cancelled or Expired	(109 )	112.14		
Outstanding at June 30, 2016	12,719	99.78	5.8	\$ 203
Exercisable at June 30, 2016	8,925	\$ 94.74	4.4	\$ 178

The aggregate intrinsic value represents the difference between the company's closing stock price of \$112.39 as of June 30, 2016 and the exercise price multiplied by the number of in the money options outstanding as of that date. The total intrinsic value of stock options exercised during the quarter and six-months ended June 30, 2016 was \$18 million and \$41 million, respectively (\$7 million and \$51 million during the same periods in 2015, respectively).

Cash received from option exercises under all share-based payment arrangements for the quarter and six months ended June 30, 2016 was \$29 million and \$59 million, respectively (\$11 million and \$51 million for the same time periods in 2015, respectively). The cash tax benefit realized from share-based compensation totaled \$6 million and \$19 million for the quarter and six months ended June 30, 2016 (\$5 million and \$29 million cash tax benefit for the same periods in 2015 ).

As of June 30, 2016, \$28 million of unrecognized compensation cost related to non-vested stock options is expected to be recognized over a weighted-average period of approximately 1 year.

## Performance-Based and Restricted Stock Awards

During the six months ended June 30, 2016, the company granted performance-based stock awards to employees of 240,505 shares that vest, subject to the attainment of pre-established minimum performance criteria, principally on the third anniversary of their date of grant. These awards are tied to either return on capital ("ROC") performance or

relative total shareholder return ("TSR") performance versus that of the S&P 500. The actual number of shares issued in settlement of a vested award can range from zero to 200 percent of the target number of shares granted based upon the company's attainment of specified performance targets at the end of a three-year period. Compensation expense related to these awards is recognized over the three-year performance period based on the fair value of the closing market price of the company's common stock on the date of the grant

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and the estimated performance that will be achieved. Compensation expense will be adjusted during the three-year performance period based upon the estimated performance levels that will be achieved.

During the six months ended June 30, 2016, the company also granted restricted stock units to employees of 95,049 shares. The majority of the restricted stock units vest at the end of a three-year service period. Compensation expense related to the restricted stock units is recognized on a straight line basis over the vesting period.

The weighted-average fair value of ROC performance-based stock awards and restricted stock units granted during the six months ended June 30, 2016 was \$93.46 and \$97.95, respectively (\$120.04 and \$120.37 for the same periods in 2015). These fair values are based on the closing market price of Praxair's common stock on the grant date adjusted for dividends that will not be paid during the vesting period.

The weighted-average fair value of performance-based stock tied to relative TSR performance granted during the six months ended June 30, 2016 was \$124.18 (none in 2015), and was estimated using a Monte Carlo simulation performed as of the grant date.

The following table summarizes non-vested performance-based and restricted stock award activity as of June 30, 2016 and changes during the six months then ended (shares based on target amounts, averages are calculated on a weighted basis):

	Performance-Based		Restricted Stock	
	Number of Shares (000's)	Average Grant Date Fair Value	Number of Shares (000's)	Average Grant Date Fair Value
Non-vested at January 1, 2016	802	\$ 114.41	286	\$ 112.48
Granted	241	105.34	95	97.95
Vested	(106 )	103.46	(88 )	105.42
Cancelled and Forfeited	(202 )	104.28	(5 )	112.85
Non-vested at June 30, 2016	735	\$ 115.76	288	\$ 109.83

There are approximately 12 thousand performance-based shares and 11 thousand restricted stock shares that are non-vested at June 30, 2016 which will be settled in cash due to foreign regulatory limitations. The liability related to these grants reflects the current estimate of performance that will be achieved and the current common stock price. As of June 30, 2016, based on current estimates of future performance, \$32 million of unrecognized compensation cost related to performance-based awards is expected to be recognized through the first quarter of 2019 and \$16 million of unrecognized compensation cost related to the restricted stock awards is expected to be recognized primarily through the first quarter of 2019.

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## 11. Retirement Programs

The components of net pension and postretirement benefits other than pensions ("OPEB") costs for the quarter and six months ended June 30, 2016 and 2015 are shown below:

	Quarter Ended June 30,				Six Months Ended June 30,			
	Pensions		OPEB		Pensions		OPEB	
(Millions of dollars)	2016	2015	2016	2015	2016	2015	2016	2015
Service cost	\$12	\$14	\$1	\$1	\$24	\$28	\$2	\$2
Interest cost	25	29	1	2	49	57	2	4
Expected return on plan assets	(39)	(39)	—	—	(78)	(78)	—	—
Net amortization and deferral	16	21	(1)	(1)	31	41	(2)	(2)
Net periodic benefit cost	\$14	\$25	\$1	\$2	\$26	\$48	\$2	\$4

Praxair estimates that 2016 required contributions to its pension plans will be in the range of \$10 million to \$15 million, of which \$6 million have been made through June 30, 2016. At the end of 2015, the Company changed the approach used to measure service and interest costs for significant pension and OPEB plans by applying specific spot rates along the yield curve rather than a single weighted-average rate derived from the yield curve (the "spot rate approach"). This change was accounted for as a change in accounting estimate and, as such, is applied on a prospective basis starting in 2016.

In 2015 a number of senior managers retired. These retirees are covered by the U.S. supplemental pension plan which provides for a lump sum payment option. Under certain circumstances, such lump sum payments must be accounted for as a settlement of the related pension obligation, but only when paid. As a result, Praxair anticipates that it will record a pension settlement expense of approximately \$4 million in the third quarter of 2016 when the payments are made to the retirees.



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## 12. Commitments and Contingencies

## Contingent Liabilities

Praxair is subject to various lawsuits and government investigations that arise from time to time in the ordinary course of business. These actions are based upon alleged environmental, tax, antitrust and personal injury claims, among others. Praxair has strong defenses in these cases and intends to defend itself vigorously. It is possible that the company may incur losses in connection with some of these actions in excess of accrued liabilities. Management does not anticipate that in the aggregate such losses would have a material adverse effect on the company's consolidated financial position or liquidity; however, it is possible that the final outcomes could have a significant impact on the company's reported results of operations in any given period (see Note 17 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K).

Significant matters are:

During May 2009, the Brazilian government published Law 11941/2009 instituting a new voluntary amnesty program ("Refis Program") which allowed Brazilian companies to settle certain federal tax disputes at reduced amounts. During the 2009 third quarter, Praxair decided that it was economically beneficial to settle many of its outstanding federal tax disputes and such disputes were enrolled in the Refis Program, subject to final calculation and review by the Brazilian federal government. The Company recorded estimated liabilities based on the terms of the Refis Program. Since 2009, Praxair has been unable to reach final agreement on the calculations and recently initiated litigation against the government in an attempt to resolve certain items. Open issues relate to the following matters: (i) application of cash deposits and net operating loss carryforwards to satisfy obligations, and (ii) the amount of tax reductions available under the Refis Program. It is difficult to estimate the timing of resolution of legal matters in Brazil.

At June 30, 2016 the most significant non-income and income tax claims in Brazil, after enrollment in the Refis Program, relate to state VAT tax matters and a federal income tax matter where the taxing authorities are challenging the tax rate that should be applied to income generated by a subsidiary company. The total estimated exposure relating to such claims, including interest and penalties, as appropriate, is approximately \$220 million. Praxair has not recorded any liabilities related to such claims based on management judgments, after considering judgments and opinions of outside counsel. Because litigation in Brazil historically takes many years to resolve, it is very difficult to estimate the timing of resolution of these matters; however, it is possible that certain of these matters may be resolved within the near term. The company is vigorously defending against the proceedings.

On September 1, 2010, CADE (Brazilian Administrative Council for Economic Defense) announced alleged anticompetitive activity on the part of five industrial gas companies in Brazil and imposed fines on all five companies. Originally, CADE imposed a civil fine of R\$2.2 billion Brazilian reais (US\$685 million) against White Martins, the Brazil-based subsidiary of Praxair, Inc. In response to a motion for clarification, the fine was reduced to R\$1.7 billion Brazilian reais (US\$530 million) due to a calculation error made by CADE. The amount of the fine is subject to indexation using SELIC. On September 2, 2010, Praxair issued a press release and filed a report on Form 8-K rejecting all claims and stating that the fine represents a gross and arbitrary disregard of Brazilian law.

On October 19, 2010, White Martins filed an annulment petition ("appeal") with the Federal Court in Brasilia seeking to have the fine against White Martins entirely overturned. In order to suspend payment of the fine pending the completion of the appeal process, Brazilian law required that the company tender a form of guarantee in the amount of the fine as security. Initially, 50% of the guarantee was satisfied by letters of credit with a financial institution and 50% by equity of a Brazilian subsidiary.

On September 14, 2015, the Ninth Federal Court of Brasilia overturned the fine against White Martins and declared the original CADE administrative proceeding to be null and void. On June 30, 2016, CADE filed an appeal against this decision with the Federal Circuit Court in Brasilia.

On April 15, 2016, the Ninth Federal Court in Brasilia allowed White Martins to withdraw and cancel the letters of credit. Accordingly, the guarantee is currently satisfied solely by equity of a Brazilian subsidiary.

Praxair strongly believes that the allegations are without merit and that the fine will be entirely overturned during the appeal process. The company further believes that it has strong defenses and will vigorously defend against the allegations and related fine up to such levels of the Federal Courts in Brazil as may be necessary. Because appeals in Brazil historically take many years to resolve, it is very difficult to estimate when the appeal will be finally decided.

Based on management judgments, after considering judgments and opinions of outside counsel, no reserve has been recorded for this proceeding as management does not believe that a loss is probable.

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## 13. Segments

Sales and operating profit by segment for the quarters and six-months ended June 30, 2016 and 2015 are shown below. For a description of Praxair's operating segments, refer to Note 18 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K.

	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2016	2015	2016	2015
SALES <sup>(a)</sup>				
North America	\$ 1,411	\$ 1,482	\$ 2,764	\$ 2,981
Europe	355	331	675	657
South America	358	388	669	789
Asia	393	387	769	758
Surface Technologies	148	150	297	310
Total sales	\$ 2,665	\$ 2,738	\$ 5,174	\$ 5,495
	Quarter Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2016	2015	2016	2015
OPERATING PROFIT				
North America	\$ 359	\$ 388	\$ 708	\$ 767
Europe	68	63	130	125
South America	70	81	125	166
Asia	67	69	130	138
Surface Technologies	24	25	49	53
Segment operating profit	588	626	1,142	1,249
Cost reduction program and other charges (Note 2)	—	(146 )	—	(146 )
Total operating profit	\$ 588	\$ 480	\$ 1,142	\$ 1,103

(a) Sales reflect external sales only. Intersegment sales, primarily from North America to other segments, were not material.

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## 14. Equity and Redeemable Noncontrolling Interests

## Equity

A summary of the changes in total equity for the quarters ended June 30, 2016 and 2015 is provided below:

Activity	Quarter Ended June 30,			2015		
	2016			2015		
(Millions of dollars)	Praxair,	Noncontrolling	Total	Praxair,	Noncontrolling	Total
	Inc.	Interests	Equity	Inc.	Interests	Equity
	Shareholders' Equity			Shareholders' Equity		
Balance, beginning of period	\$4,888	\$ 417	\$5,305	\$5,018	\$ 375	\$5,393
Net income (a)	399	10	409	308	8	316
Other comprehensive income (loss)	76	(6 )	70	73	7	80
Noncontrolling interests:						
Additions (reductions) (b)	—	—	—	—	—	—
Dividends and other capital changes	—	(14 )	(14 )	—	(10 )	(10 )
Redemption value adjustments	3	—	3	(1 )	—	(1 )
Dividends to Praxair, Inc. common stock holders (\$0.75 per share in 2016 and \$0.715 per share in 2015)	(214 )	—	(214 )	(205 )	—	(205 )
Issuances of common stock:						
For the dividend reinvestment and stock purchase plan	2	—	2	1	—	1
For employee savings and incentive plans	19	—	19	14	—	14
Purchases of common stock	(51 )	—	(51 )	(257 )	—	(257 )
Tax benefit from share-based compensation	4	—	4	3	—	3
Share-based compensation	14	—	14	10	—	10
Balance, end of period	\$5,140	\$ 407	\$5,547	\$4,964	\$ 380	\$5,344

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(Millions of dollars)	Six Months Ended June 30,			2015		
	2016			2015		
Activity	Praxair, Inc.	Noncontrolling interests	Total Equity	Praxair, Inc.	Noncontrolling interests	Total Equity
	Shareholders' Equity	Shareholders' Equity	Shareholders' Equity	Shareholders' Equity	Shareholders' Equity	Shareholders' Equity
Balance, beginning of period	\$4,389	\$ 404	\$4,793	\$5,623	\$ 387	\$6,010
Net income (a)	755	18	773	724	17	741
Other comprehensive income (loss)	422	4	426	(557 )	(14 )	(571 )
Noncontrolling interests:						
Additions (reductions) (b)	—	—	—	—	2	2
Dividends and other capital changes	—	(19 )	(19 )	—	(12 )	(12 )
Redemption value adjustments	3	—	3	(4 )	—	(4 )
Dividends to Praxair, Inc. common stock holders (\$1.50 per share in 2016 and \$1.43 per share in 2015)	(428 )	—	(428 )	(412 )	—	(412 )
Issuances of common stock:						
For the dividend reinvestment and stock purchase plan	4	—	4	3	—	3
For employee savings and incentive plans	46	—	46	44	—	44
Purchases of common stock	(83 )	—	(83 )	(491 )	—	(491 )
Tax benefit from share-based compensation	10	—	10	17	—	17
Share-based compensation	22	—	22	17	—	17
Balance, end of period	\$5,140	\$ 407	\$5,547	\$4,964	\$ 380	\$5,344

Net income for noncontrolling interests excludes Net income related to redeemable noncontrolling interests of \$2 (a) million for the six months ended June 30, 2016 (\$6 million for the same time period in 2015), which is not part of total equity (see redeemable noncontrolling interests section below).

(b) Praxair increased its ownership in certain consolidated subsidiaries. The difference between the purchase price and the related noncontrolling interests was recorded as a decrease in Praxair's additional paid-in-capital.

The components of AOCI are as follows:

(Millions of dollars)	June 30, 2016	December 31, 2015
Cumulative translation adjustment - net of taxes:		
North America	\$(865 )	\$(899 )
South America	(1,931 )	(2,272 )
Europe	(477 )	(526 )
Asia	(292 )	(285 )
Surface Technologies	(33 )	(36 )
	(3,598 )	(4,018 )
Derivatives - net of taxes	(1 )	(1 )
Pension / OPEB funded status obligation (net of \$322 million and \$325 million tax benefit in June 30, 2016 and December 31, 2015, respectively)	(575 )	(577 )
	\$(4,174 )	\$(4,596 )

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## Redeemable Noncontrolling Interests

Noncontrolling interests with redemption features, such as put/sell options, that are not solely within the Company's control ("redeemable noncontrolling interests") are reported separately in the consolidated balance sheets at the greater of carrying value or redemption value. For redeemable noncontrolling interests that are not yet exercisable, Praxair calculates the redemption value by accreting the carrying value to the redemption value over the period until exercisable. If the redemption value is greater than the carrying value, any increase is adjusted directly to equity and does not impact net income.

At June 30, 2016, redeemable noncontrolling interests includes one packaged gas distributor in the United States where the noncontrolling shareholder has a put option. At December 31, 2015, redeemable noncontrolling interests also included Yara Praxair Holding AS, a 66%-owned joint venture in Scandinavia. On June 1, 2016, Praxair acquired the remaining 34% stake in this joint venture for \$104 million. The cash payment is shown in the financing section of the consolidated statements of cash flows under the caption "Noncontrolling interest transactions and other".

The following is a summary of the changes in redeemable noncontrolling interests for the six months ended June 30, 2016 and 2015:

(Millions of dollars)	2016	2015
Balance, January 1	\$113	\$176
Net income	2	6
Distributions to noncontrolling interest and other	—	(5 )
Redemption value adjustments/accretion	(3 )	4
Foreign currency translation	4	(6 )
Purchase of noncontrolling interest	(104 )	—
Balance, June 30	\$12	\$175

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

The following table provides summary data for the quarter and six months ended June 30, 2016 and 2015:

(Dollar amounts in millions, except per share data)	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
Reported Amounts						
Sales	\$2,665	\$2,738	(3 )%	\$5,174	\$5,495	(6 )%
Cost of sales, exclusive of depreciation and amortization	\$1,468	\$1,516	(3 )%	\$2,849	\$3,046	(6 )%
Gross margin (a)	\$1,197	\$1,222	(2 )%	\$2,325	\$2,449	(5 )%
As a percent of sales	44.9 %	44.6 %		44.9 %	44.6 %	
Selling, general and administrative	\$308	\$297	4 %	\$582	\$596	(2 )%
As a percent of sales	11.6 %	10.8 %		11.2 %	10.8 %	
Depreciation and amortization	\$281	\$278	1 %	\$553	\$555	— %
Cost reduction program and other charges (b)	\$—	\$146		\$—	\$146	
Other income (expense) - net	\$4	\$2		\$(1 )	\$(2 )	
Operating profit	\$588	\$480	23 %	\$1,142	\$1,103	4 %
Operating margin	22.1 %	17.5 %		22.1 %	20.1 %	
Interest expense - net	\$44	\$40	10 %	\$109	\$84	30 %
Effective tax rate	26.8 %	29.8 %		27.0 %	28.8 %	
Income from equity investments	\$11	\$10	10 %	\$21	\$21	— %
Noncontrolling interests	\$(10 )	\$(11 )	(9 )%	\$(20 )	\$(23 )	(13 )%
Net income - Praxair, Inc.	\$399	\$308	30 %	\$755	\$724	4 %
Diluted earnings per share	\$1.39	\$1.06	31 %	\$2.63	\$2.49	6 %
Diluted shares outstanding	287,727	290,102	(1 )%	287,426	290,940	(1 )%
Number of employees	26,896	27,302		26,896	27,302	

## 2016 Adjusted Amounts (b)

Operating profit	\$588		\$626	(6 )%	\$1,142		\$1,249	(9 )%
Operating margin	22.1	%	22.9	%	22.1	%	22.7	%
Interest expense - net	\$44		\$40	10 %	93		84	11 %
Effective tax rate	26.8	%	28.0	%	27.2	%	28.0	%
Net income - Praxair, Inc.	\$399		\$420	(5 )%	\$765		\$836	(8 )%
Diluted earnings per share	\$1.39		\$1.45	(4 )%	\$2.67		\$2.88	(7 )%

(a) Gross margin excludes depreciation and amortization expense.

Adjusted amounts are non-GAAP measures which exclude the impact of the bond redemption charge in the first quarter of 2016 and the cost reduction program and other charges in the second quarter of 2015 (see Note 2 and (b) Note 5 to the condensed consolidated financial statements). A reconciliation of reported amounts to adjusted amounts can be found in the "Non-GAAP Financial Measures" section of this MD&A.

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### Consolidated Results

In the second quarter, Praxair's sales were \$2,665 million, 3% below the prior-year quarter primarily due to the negative impact of foreign currency translation which reduced sales by 4%. Lower cost pass-through, primarily natural gas, reduced sales by 1%. Excluding these impacts, sales were 2% above the second quarter of 2015 due to higher overall pricing which increased sales by 1%, and 1% growth from acquisitions, primarily the acquisition of a European CO2 business in June. Overall volumes were comparable to the prior-year quarter, as volume growth from new project start-ups primarily in Asia, Europe and South America were offset by lower base business volumes in North America due primarily to weaker industrial manufacturing activity in the United States, and weaker demand in upstream energy end-markets. Operating profit of \$588 million, 22.1% of sales, was 23% above \$480 million in the prior-year quarter. Excluding the impact of a \$146 million charge relating to the cost reduction program recorded in the prior-year quarter, operating profit was 6% lower, and 2% lower excluding negative currency translation. Growth from higher pricing was more than offset by the impact of lower volumes and higher costs. The company's EBITDA margin was strong at 33%. Diluted earnings per share ("EPS") was \$1.39, 31% above reported earnings per share of \$1.06 in the second quarter of 2015. Excluding the impact of a \$146 million pre-tax cost reduction charge in the 2015 quarter, diluted EPS was 4% below 2015 adjusted EPS of \$1.45, as lower operating profit was partially offset by a lower tax rate and lower diluted shares outstanding due to Treasury share repurchases over the past year.

#### Outlook

Reported GAAP diluted EPS for the third quarter of 2016 is expected to be in the range of \$1.34 to \$1.41 and reported GAAP diluted EPS for the full year of 2016 is expected to be in the range of \$5.40 to \$5.55.

Adjusted diluted EPS for the third quarter of 2016 is expected to be in the range of \$1.35 to \$1.42 which excludes the impact of a pension settlement expected to be recorded in the third quarter (see Note 11 to the condensed consolidated financial statements). Adjusted diluted EPS for the full year of 2016 is expected to be in the range of \$5.45 to \$5.60 which also excludes the impact of a bond redemption charge recorded in the first quarter (see Note 5 to the condensed consolidated financial statements).

Full-year capital expenditures are expected to be about \$1.4 billion.

The company's core business is to build, own, and operate industrial gas plants in order to supply atmospheric and process gases to customers. As such, Praxair believes that its backlog is one indicator of future sales growth. At June 30, 2016, Praxair's backlog of 17 large projects under construction was \$1.3 billion. This represents the total estimated capital cost of large plants under construction. These plants will supply customers in the energy, chemical, manufacturing, electronics and metals markets.

Praxair provides quarterly updates on operating results, material trends that may affect financial performance, and financial earnings guidance via quarterly earnings releases and investor teleconferences. These updates are available on the company's website, [www.praxair.com](http://www.praxair.com), but are not incorporated herein.



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## Results of Operations

The changes in consolidated sales and operating profit compared to the prior year are attributable to the following:

	Quarter Ended June 30, 2016 vs. 2015				Six Months Ended June 30, 2016 vs. 2015			
	% Change				% Change			
	Sales		Operating Profit		Sales		Operating Profit	
Factors Contributing to Changes								
Volume	—	%	(2	)%	(1)%	(5	)%	
Price	1	%	4	%	1	%	5	%
Cost pass-through	(1	)%	—	%	(1)%	—	%	
Currency	(4	)%	(4	)%	(5)%	(6	)%	
Acquisitions/divestitures	1	%	—	%	—	%	—	%
Other	—	%	25	%	—	%	10	%
Reported	(3	)%	23	%	(6)%	4	%	
Add: Cost reduction program and other charges	—	%	(29	)%	—	%	(13	)%
Adjusted	(3	)%	(6	)%	(6)%	(9	)%	

The following tables provide sales by end-market and distribution method:

	Quarter Ended June 30,						Six Months Ended June 30,					
	% of Sales			% Change*			% of Sales			% Change*		
	2016	2015		2016	2015		2016	2015		2016	2015	
Sales by End Markets												
Manufacturing	23	%	25	%	(6)	)%	23	%	24	%	(5)	)%
Metals	17	%	17	%	5	%	17	%	17	%	2	%
Energy	11	%	13	%	(4)	)%	11	%	13	%	(8)	)%
Chemicals	10	%	10	%	(1)	)%	10	%	10	%	(2)	)%
Electronics	8	%	8	%	6	%	8	%	8	%	6	%
Healthcare	8	%	8	%	8	%	8	%	8	%	7	%
Food & Beverage	9	%	9	%	8	%	9	%	8	%	8	%
Aerospace	3	%	3	%	4	%	3	%	3	%	2	%
Other	11	%	7	%	5	%	11	%	9	%	1	%
	100	%	100	%			100	%	100	%		

\* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures.

	Quarter Ended June 30,				Six Months Ended June 30,			
	% of Sales		% Change*		% of Sales		% Change*	
	2016	2015			2016	2015		
Sales by Distribution Method								
On-Site	28	%	28	%	28	%	28	%
Merchant	35	%	35	%	35	%	34	%
Packaged Gas	29	%	29	%	28	%	29	%
Other	8	%	8	%	9	%	9	%
	100	%	100	%	100	%	100	%

Sales decreased \$73 million, or 3%, for the second quarter versus the respective 2015 period primarily due to negative currency translation impacts of 4% and lower cost pass-through of 1%. Excluding these impacts, organic sales increased 1% due to higher overall pricing, primarily in North America, South America and Europe. Acquisitions increased sales by 1%

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primarily in Europe. Sales decreased \$321 million, or 6%, for the six months ended June 30, 2016 versus the respective 2015 period primarily due to negative currency translation impacts of 5% and lower cost-pass through of 1%.

Gross margin decreased \$25 million, or 2%, for the second quarter and decreased \$124 million, or 5%, for the six months ended June 30, 2016 versus the respective 2015 periods, primarily due to lower sales. Gross margin as percentage of sales improved to 44.9% from 44.6% for both the second quarter and the six months ended June 30, 2016 versus the respective 2015 periods primarily due to lower cost pass-through.

Selling, general and administrative expense ("SG&A") increased \$11 million, or 4%, for the second quarter and decreased \$14 million, or 2%, for the six months ended June 30, 2016 versus the respective 2015 periods. Currency effects reduced SG&A expense by \$11 million and \$30 million in the quarter and six-month periods respectively. Excluding currency effects, SG&A increased \$22 million in the second quarter and increased \$16 million for the six months ended June 30, 2016 versus the respective 2015 periods. In both periods, acquisitions, cost inflation and higher incentive compensation increased SG&A which were partially offset by benefits from the cost reduction program.

Depreciation and amortization expense increased \$3 million, or 1%, for the second quarter and decreased \$2 million for the six months ended June 30, 2016 versus the respective 2015 periods. Currency effects reduced depreciation and amortization expense by \$10 million for the quarter which was more than offset by higher depreciation due to large project start-ups and acquisitions. Currency effects reduced depreciation and amortization expense by \$28 million for the six-month period which was largely offset by higher depreciation expense primarily related to new project start-ups and acquisitions.

In 2015, Praxair recorded charges of \$146 million in the second quarter and \$19 million in the third quarter related primarily to a cost reduction program (Refer to note 2 to the consolidated financial statements included in Praxair's 2015 Annual Report on Form 10-K). The 2015 second and third quarter cost reduction actions are expected to result in annualized pre-tax expense reductions and cash flow increases of approximately \$80 million and, to date, have met expectations excluding any currency translation impacts.

Other income (expense) – net was \$4 million income for the quarter ended June 30, 2016 and \$1 million expense for the six months ended June 30, 2016 compared to a \$2 million income and \$2 million expense for the respective 2015 periods.

Reported operating profit increased \$108 million, or 23%, for the second quarter and increased \$39 million, or 4%, for the six months ended June 30, 2016 versus the respective period in 2015. In 2015 there was a \$146 million charge related to the cost reduction program and other charges. Excluding the impact of negative currency translation, operating profit decreased 2% in the second quarter and decreased 3% for the six months ended June 30, 2016 versus the respective adjusted amounts in 2015. Higher pricing increased operating profit but was offset by lower volumes and higher costs. A discussion of operating profit by segment is included in the segment discussion that follows.

Interest expense-net increased \$4 million, or 10%, for the second quarter and increased \$25 million, or 30%, for the six months ended June 30, 2016 versus the respective 2015 periods. Included within interest expense-net for the six months ended June 30, 2016 was a \$16 million charge relating to a bond redemption (see Note 5 to the condensed consolidated financial statements) recorded during the first quarter of 2016. Excluding this charge, adjusted interest expense-net increased \$9 million, or 11% for the six months ended June 30, 2016 versus the respective 2015 periods. Lower capitalized interest increased interest expense by approximately \$1 million and \$3 million for the quarter and six months ended June 30, 2016, respectively. The remaining increase was primarily attributable to slightly higher average interest rates due primarily to extending debt maturities.

The reported effective tax rate ("ETR") for the quarters ended June 30, 2016 and 2015 was 26.8% and 29.8%, respectively. The ETR for 2016 includes a \$10 million excess tax benefit on share-based compensation due to the adoption of a new accounting standard during the current year (see Note 1 to the condensed consolidated financial statements) while the 2015 period had \$33 million lower taxes related to the cost reduction program and other charges (see Note 2 to the condensed consolidated financial statements). The ETR for the six months ended June 30, 2016 and 2015 was 27.0% and 28.8%, respectively, and includes these same matters. In addition to the items previously noted, the 2016 six-month period includes a \$6 million tax benefit relating to a bond redemption charge recorded during the first quarter of 2016.

Income from equity investments for the quarters ended June 30, 2016 and 2015 was \$11 million and \$10 million, respectively and was \$21 million for both the six months ended June 30, 2016 and 2015. Praxair's significant sources of equity income are in China, Italy, and the Middle East.

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At June 30, 2016, non-controlling interests consisted primarily of non-controlling shareholders' investments in Asia (primarily China and India), Europe (primarily Italy), and North America (primarily within the U.S. packaged gas business). Non-controlling interests decreased \$1 million for the second quarter and decreased \$3 million for the six months ended June 30, 2016 versus the respective 2015 periods. The decrease in both periods was primarily attributable to the divestiture of a controlling interest in a U.S. packaged gas business during the fourth quarter of 2015.

Reported Net income-Praxair, Inc. increased \$91 million, or 30%, for the second quarter and increased \$31 million, or 4%, for the six months ended June 30, 2016 versus the respective periods in 2015. These fluctuations included the impacts from a \$10 million after-tax impact of a bond redemption charge (see Note 5 to the condensed consolidated financial statements) recorded during the first quarter of 2016 and a \$112 million after-tax charge related to the cost reduction program and other charges (see Note 2 to the condensed consolidated financial statements) recorded during the second quarter of 2015. Net income-Praxair, Inc. for the second quarter decreased \$21 million, or 5% versus the prior-year on an adjusted basis. For the six-month period, adjusted Net Income-Praxair, Inc. decreased \$71 million, or 8% versus the prior-year primarily due to lower operating profit, partially offset by a lower ETR.

Reported Earnings per share of \$1.39 increased \$0.33, or 31%, for the second quarter and increased \$0.14, or 6%, for the six months ended June 30, 2016 versus the comparable period in 2015. These fluctuations included the impacts from a \$0.04 per share bond redemption charge (see Note 5 to the condensed consolidated financial statements) recorded during the first quarter of 2016 and a \$0.39 per share charge related to the cost reduction program and other charges (see Note 2 to the condensed consolidated financial statements) recorded during the second quarter of 2016. Excluding these charges, adjusted EPS decreased \$0.06, or 4% for the second quarter and decreased \$0.21, or 7%, for the six months ended June 30, 2016, versus the comparable period in 2015. The decrease was attributable to lower adjusted net income which was partially offset by a reduction in the number of diluted shares outstanding as a result of the company's net repurchases of common stock over the past year.

The number of employees at June 30, 2016 was 26,896, a decrease of 406 employees from June 30, 2015. This decrease primarily reflects the impact of cost reduction programs implemented during the previous year and was partially offset by increases due to acquisitions.

### Other Comprehensive Income (Loss)

Other comprehensive income for the second quarter and six months ended June 30, 2016 of \$68 million and \$430 million, respectively, resulted primarily from positive currency translation adjustments of \$70 million and \$428 million respectively. The translation adjustments reflect the impact of translating local currency foreign subsidiary financial statements to U.S. dollars. The positive translation adjustments in the period resulted primarily from the weakening of the U.S. dollar against most major currencies. See "Currency" section of the MD&A for exchange rates used for translation purposes and Note 14 to the condensed consolidated financial statements for a summary of the currency translation adjustment component of accumulated other comprehensive income by segment.

### Retirement Benefits

The net periodic cost for pension and OPEB plans was \$15 million and \$27 million in the quarters ended June 30, 2016 and 2015, respectively and \$28 million and \$52 million for the six months ended June 30, 2016 and 2015 respectively. These decreases are due to lower amortization of net actuarial losses as a result of an increase in discount rates and a change in the approach for measuring service and interest costs by applying specific spot rates along the yield curve rather than a single weighted-average rate derived from the yield curve (the "spot rate approach"). Refer to the 2015 Annual Report on Form 10-K for a more detailed discussion of the change in approach and the estimated impacts.



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## Segment Discussion

The following summary of sales and operating profit by segment provides a basis for the discussion that follows.

(Dollar amounts in millions)	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
<b>SALES</b>						
North America	\$1,411	\$1,482	(5 )%	\$2,764	\$2,981	(7 )%
Europe	355	331	7 %	675	657	3 %
South America	358	388	(8 )%	669	789	(15 )%
Asia	393	387	2 %	769	758	1 %
Surface Technologies	148	150	(1 )%	297	310	(4 )%
	\$2,665	\$2,738	(3 )%	\$5,174	\$5,495	(6 )%
<b>OPERATING PROFIT</b>						
North America	\$359	\$388	(7 )%	\$708	\$767	(8 )%
Europe	68	63	8 %	130	125	4 %
South America	70	81	(14 )%	125	166	(25 )%
Asia	67	69	(3 )%	130	138	(6 )%
Surface Technologies	24	25	(4 )%	49	53	(8 )%
Segment operating profit	588	626	(6 )%	1,142	1,249	(9 )%
Cost reduction program and other charges	—	(146 )		—	(146 )	
Total operating profit	\$588	\$480	23 %	\$1,142	\$1,103	4 %

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## North America

	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
Sales	\$1,411	\$1,482	(5 )%	\$2,764	\$2,981	(7 )%
Cost of sales, exclusive of depreciation and amortization	715	765		1,397	1,556	
Gross margin	696	717		1,367	1,425	
Operating expenses	183	175		353	354	
Depreciation and amortization	154	154		306	304	
Operating profit	\$359	\$388	(7 )%	\$708	\$767	(8 )%
Margin %	25.4 %	26.2 %		25.6 %	25.7 %	

	Quarter Ended June 30, 2016 vs. 2015			Six Months Ended June 30, 2016 vs. 2015		
	% Change			% Change		
	Sales	Operating Profit		Sales	Operating Profit	
Factors Contributing to Changes						
Volume	(2 )%	(3 )%		(3 )%	(6 )%	
Price	1 %	3 %		1 %	3 %	
Cost pass-through	(2 )%	— %		(2 )%	— %	
Currency	(2 )%	(2 )%		(3 )%	(3 )%	
Acquisitions/divestitures	— %	— %		— %	— %	
Other	— %	(5 )%		— %	(2 )%	
	(5 )%	(7 )%		(7 )%	(8 )%	

The following tables provide sales by end-market and distribution method:

	Quarter Ended June 30,			Six Months Ended June 30,		
	% of Sales			% of Sales		
	2016	2015	% Change*	2016	2015	% Change*
Sales by End Markets						
Manufacturing	30 %	31 %	(6 )%	30 %	31 %	(5 )%
Metals	12 %	11 %	1 %	12 %	11 %	(2 )%
Energy	16 %	18 %	(3 )%	16 %	18 %	(8 )%
Chemicals	9 %	10 %	(9 )%	9 %	10 %	(11 )%
Electronics	5 %	4 %	5 %	5 %	5 %	3 %
Healthcare	7 %	7 %	6 %	7 %	7 %	4 %
Food & Beverage	10 %	9 %	7 %	10 %	9 %	7 %
Aerospace	2 %	2 %	5 %	2 %	1 %	5 %
Other	9 %	8 %	13 %	9 %	8 %	5 %
	100%	100%		100%	100%	

\* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures.

	Quarter Ended June 30,			Six Months Ended June 30,		
	% of Sales			% of Sales		
	2016	2015		2016	2015	
Sales by Distribution Method						
On- Site	27 %	28 %		27 %	28 %	
Merchant	39 %	37 %		39 %	37 %	



Packaged Gas	32	%	33	%	32	%	33	%
Other	2	%	2	%	2	%	2	%
	100	%	100	%	100	%	100	%

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The North America segment includes Praxair's industrial gases operations in the United States, Canada and Mexico. North America segment sales decreased \$71 million, or 5% in the second quarter and \$217 million, or 7% for the six-month period as compared to the prior year. Excluding currency and cost pass-through impacts, sales were 1% and 2% below the prior year for the quarter and six-month period, respectively, due to lower volumes, primarily packaged gases, partially offset by higher pricing. By end-market, lower organic sales primarily to the manufacturing and upstream energy markets, were partially offset by growth in food and beverage, and healthcare.

North America segment operating profit decreased \$29 million, or 7% in the second quarter and \$59 million or 8% for the six-month period as compared to the prior-year due to lower volumes and currency impacts which were partially offset by the impact of higher pricing.

## Europe

	Quarter Ended June 30,				Six Months Ended June 30,			
	2016	2015	Variance	%	2016	2015	Variance	%
Sales	\$355	\$331	7	%	\$675	\$657	3	%
Cost of sales, exclusive of depreciation and amortization	197	188			375	370		
Gross margin	158	143			300	287		
Operating expenses	51	44			95	90		
Depreciation and amortization	39	36			75	72		
Operating profit	\$68	\$63	8	%	\$130	\$125	4	%
Margin %	19.2	%	19.0	%	19.3	%	19.0	%

	Quarter Ended June 30, 2016 vs. 2015				Six Months Ended June 30, 2016 vs. 2015			
	% Change		% Change		% Change		% Change	
	Sales		Operating Profit		Sales		Operating Profit	
Factors Contributing to Changes								
Volume	3	%	3	%	3	%	3	%
Price	1	%	3	%	—	%	2	%
Cost pass-through	(1)	%	—	%	(1)	%	—	%
Currency	1	%	2	%	(1)	%	—	%
Acquisitions/divestitures	3	%	—	%	2	%	—	%
Other	—	%	—	%	—	%	(1)	%
	7	%	8	%	3	%	4	%

The following tables provide sales by end-market and distribution method:

	Quarter Ended June 30,					Six Months Ended June 30,				
	% of Sales		% Change*			% of Sales		% Change*		
	2016	2015				2016	2015			
Sales by End Markets										
Manufacturing	21	%	23	%	—	%	22	%	22	%
Metals	16	%	17	%	6	%	17	%	17	%
Energy	5	%	6	%	(5)	%	5	%	6	%
Chemicals	13	%	14	%	(1)	%	14	%	14	%
Electronics	7	%	7	%	8	%	8	%	8	%
Healthcare	11	%	11	%	4	%	11	%	11	%

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Food & Beverage	11	%	10	%	4	%	10	%	9	%	4	%
Aerospace	1	%	1	%	13	%	1	%	1	%	(3)	)%
Other	15	%	11	%	11	%	12	%	12	%	7	%
	100%		100%				100%		100%			

\* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures

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	Quarter Ended June 30,				Six Months Ended June 30,			
	% of Sales		% of Sales		% of Sales		% of Sales	
	2016	2015	2016	2015	2016	2015	2016	2015
Sales by Distribution Method								
On- Site	18	%	19	%	19	%	19	%
Merchant	35	%	33	%	34	%	34	%
Packaged Gas	43	%	44	%	42	%	43	%
Other	4	%	4	%	5	%	4	%
	100	%	100	%	100	%	100	%

Europe segment sales increased by \$24 million, or 7% in the second quarter and \$18 million, or 3% for the six-month period as compared to the prior year. Organic sales grew 4% for the quarter due primarily to higher merchant volumes, volume growth from new project start-ups and higher pricing. Organic sales grew 3% for the six-month period due primarily to higher volumes. Organic growth was positive in most major end-markets in Europe as compared to the prior-year. In addition, acquisitions, primarily a carbon dioxide business largely serving the food and beverage market, contributed growth of 3% and 2% for the quarter and six-month period, respectively. Refer to Note 3 to the condensed consolidated financial statements for additional information.

Europe segment operating profit increased by \$5 million, or 8% in the second quarter and \$5 million, or 4% for the six-month period as compared to the prior year. Excluding currency translation, operating profit increased 6% and 4% for the quarter and six-month period, respectively, primarily due to higher volumes and higher pricing.

## South America

	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
Sales	\$358	\$388	(8 )%	\$669	\$789	(15 )%
Cost of sales, exclusive of depreciation and amortization	208	219		391	440	
Gross margin	150	169		278	349	
Operating expenses	48	54		91	111	
Depreciation and amortization	32	34		62	72	
Operating profit	\$70	\$81	(14 )%	\$125	\$166	(25 )%
Margin %	19.6 %	20.9 %		18.7 %	21.0 %	

	Quarter Ended June 30, 2016 vs. 2015				Six Months Ended June 30, 2016 vs. 2015			
	% Change		% Change		% Change		% Change	
	Sales	Operating Profit	Sales	Operating Profit	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes								
Volume	1	%	1	%	—	%	(2	)%
Price	4	%	17	%	3	%	15	%
Cost pass-through	—	%	—	%	—	%	—	%
Currency	(13	)%	(13	)%	(18)	%	(19	)%
Acquisitions/divestitures	—	%	—	%	—	%	—	%
Other	—	%	(19	)%	—	%	(19	)%
	(8	)%	(14	)%	(15)	%	(25	)%

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The following tables provide sales by end-market and distribution method:

	Quarter Ended June 30,					Six Months Ended June 30,				
	% of Sales		% Change*			% of Sales		% Change*		
	2016	2015				2016	2015			
Sales by End Markets										
Manufacturing	19 %	21 %	(8 )	%		19 %	22 %	(9 )	%	
Metals	29 %	29 %	7	%		29 %	28 %	6	%	
Energy	2 %	2 %	16	%		2 %	2 %	(1 )	%	
Chemicals	9 %	9 %	5	%		9 %	9 %	1	%	
Electronics	— %	— %	—	%		— %	— %	—	%	
Healthcare	19 %	18 %	13	%		19 %	17 %	13	%	
Food & Beverage	13 %	12 %	16	%		13 %	12 %	12	%	
Aerospace	— %	— %	—	%		— %	— %	—	%	
Other	9 %	9 %	(4 )	%		9 %	10 %	(1 )	%	
	100%	100%				100%	100%			

\* - Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures.

	Quarter Ended June 30,				Six Months Ended June 30,			
	% of Sales				% of Sales			
	2016	2015			2016	2015		
Sales by Distribution Method								
On- Site	28 %	27 %			29 %	27 %		
Merchant	41 %	41 %			41 %	41 %		
Packaged Gas	28 %	29 %			28 %	29 %		
Other	3 %	3 %			2 %	3 %		
	100 %	100 %			100%	100 %		

South America segment sales in the second quarter decreased \$30 million, or 8%, versus the prior-year quarter. Currency translation impacts reduced sales by 13%, primarily due to a significant devaluation of the Brazilian Real against the U.S. dollar. Excluding currency, sales grew 5% primarily due to higher overall pricing which increased sales by 4% coupled with a 1% increase due to higher volumes primarily attributable to new plant start-ups during the current quarter. For the six-month period sales decreased \$120 million, or 15%, from 2015. Excluding currency, sales grew 3% due to higher overall pricing. Volumes in Brazil were steady as growth to healthcare and food and beverage end-markets was offset by lower sales to manufacturing due to weak industrial production.

Segment operating profit decreased \$11 million, or 14%, versus the prior-year quarter and decreased \$41 million, or 25%, for the six-month period year-over-year. The decrease in both periods is primarily due to negative currency translation and cost inflation which was partially offset by higher pricing and cost reduction actions.

## Asia

	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
Sales	\$393	\$387	2 %	\$769	\$758	1 %
Cost of sales, exclusive of depreciation and amortization	253	245		494	478	
Gross margin	140	142		275	280	
Operating expenses	28	30		55	56	

Depreciation and amortization	45	43		90	86	
Operating profit	\$67	\$69	(3 )%	\$130	\$138	(6 )%
Margin %	17.0 %	17.8 %		16.9 %	18.2 %	

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	Quarter Ended June 30, 2016 vs. 2015				Six Months Ended June 30, 2016 vs. 2015			
	% Change		% Change		% Change		% Change	
Factors Contributing to Changes	Sales		Operating Profit		Sales		Operating Profit	
Volume / Sale of Equipment	6	%	2	%	6	%	1	%
Price	(1)	)%	(6)	)%	(1)	)%	(5)	)%
Cost pass-through	—	%	—	%	—	%	—	%
Currency	(4)	)%	(5)	)%	(5)	)%	(6)	)%
Acquisitions/divestitures	1	%	1	%	1	%	1	%
Other	—	%	5	%	—	%	3	%
	2	%	(3)	)%	1	%	(6)	)%

The following tables provide sales by end-market and distribution method:

	Quarter Ended June 30,			Six Months Ended June 30,		
	% of Sales		%	% of Sales		%
	2016	2015	Change*	2016	2015	Change*
<b>Sales by End Markets</b>						
Manufacturing	9	%	10	%	(8)	)%
Metals	30	%	29	%	7	%
Energy	3	%	3	%	(11)	)%
Chemicals	14	%	12	%	23	%
Electronics	32	%	31	%	6	%
Healthcare	1	%	1	%	10	%
Food & Beverage	3	%	2	%	10	%
Aerospace	—	%	—	%	—	%
Other	8	%	12	%	(9)	)%
	100	%	100	%	100	%

\* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures

	Quarter Ended June 30,		Six Months Ended June 30,	
	% of Sales		% of Sales	
	2016	2015	2016	2015
<b>Sales by Distribution Method</b>				
On- Site	50	%	50	%
Merchant	29	%	31	%
Packaged Gas	14	%	12	%
Other	7	%	7	%
	100	%	100	%

Asia segment sales increased \$6 million, or 2% in the second quarter as compared to the prior year. Currency translation reduced sales by 4% primarily due to the devaluation of the Chinese yuan, Korean won and Indian Rupee against the U.S. Dollar. Excluding these impacts, sales grew 6% year-over-year primarily due to volume growth from new project start-ups in China and India and higher sales of specialty gases including helium. An acquisition in the Middle East in the prior year also contributed 1% sales growth. Overall pricing was lower than the prior year, primarily merchant liquid products in China. By end-market, organic sales growth was strongest to the chemicals and

electronics end-markets. For the six month period, sales increased \$11 million, or 1%, as compared to the prior year largely for the same reasons discussed above.

Asia segment operating profit decreased \$2 million, or 3% in the second quarter as compared to the prior year.

Excluding negative currency effects, operating profit increased 2%. This increase was primarily attributable to volume growth of 2%, acquisition contribution of 1% and favorable costs. These increases were partially offset by lower pricing. For the six month period, operating profit decreased \$8 million, or 6%, in the as compared to the prior year largely for the same reasons discussed above.



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## Surface Technologies

	Quarter Ended June 30,			Six Months Ended June 30,		
	2016	2015	Variance	2016	2015	Variance
Sales	\$148	\$150	(1 )%	\$297	\$310	(4 )%
Cost of sales, exclusive of depreciation and amortization	95	99		193	202	
Gross margin	53	51		104	108	
Operating expenses	19	15		35	34	
Depreciation and amortization	10	11		20	21	
Operating profit	\$24	\$25	(4 )%	\$49	\$53	(8 )%
Margin %	16.2 %	16.7 %		16.5 %	17.1 %	

	Quarter Ended June 30, 2016 vs. 2015		Six Months Ended June 30, 2016 vs. 2015	
	% Change	% Change	% Change	% Change
	Sales	Operating Profit	Sales	Operating Profit
Factors Contributing to Changes				
Volume/Price	(2 )%	(10 )%	(4)%	(16 )%
Cost pass-through	— %	— %	— %	— %
Currency	— %	— %	(1)%	— %
Acquisitions/divestitures	1 %	— %	1 %	— %
Other	— %	6 %	— %	8 %
	(1 )%	(4 )%	(4)%	(8 )%

The following table provides sales by end-market:

	Quarter Ended June 30,			Six Months Ended June 30,		
	% of Sales		% Change*	% of Sales		% Change*
	2016	2015		2016	2015	
Sales by End Markets						
Manufacturing	11 %	12 %	(8 )%	11 %	12 %	(8 )%
Metals	9 %	8 %	10 %	9 %	8 %	14 %
Energy	22 %	24 %	(9 )%	23 %	25 %	(10 )%
Chemicals	2 %	3 %	(13 )%	2 %	2 %	(9 )%
Electronics	1 %	1 %	(1 )%	1 %	1 %	10 %
Healthcare	— %	— %	— %	— %	— %	— %
Food & Beverage	4 %	4 %	— %	4 %	4 %	(2 )%
Aerospace	39 %	37 %	3 %	39 %	36 %	— %
Other	12 %	11 %	(13 )%	11 %	12 %	(17 )%
	100%	100%		100%	100%	

\* Excludes impact of currency, natural gas/precious metals cost pass-through and acquisitions/divestitures. Surface Technologies segment sales decreased \$2 million, or 1% in the quarter and \$13 million, or 4% for the six-month period as compared to the prior year. Organic sales decreased 2% and 4% for the quarter and six-month period respectively, primarily due to lower volumes. Sales were lower in manufacturing and energy end-markets, which were partially offset by growth in the aerospace market. Acquisitions contributed 1% growth.

Surface Technologies segment operating profit decreased \$1 million, or 4% in the quarter and \$4 million, or 8% for the six-month period as compared to the prior year primarily due to lower volumes, partially offset by higher pricing and lower costs.

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## Currency

The results of Praxair's non-U.S. operations are translated to the company's reporting currency, the U.S. dollar, from the functional currencies. For most foreign operations, Praxair uses the local currency as its functional currency. There is inherent variability and unpredictability in the relationship of these functional currencies to the U.S. dollar and such currency movements may materially impact Praxair's results of operations in any given period.

To help understand the reported results, the following is a summary of the significant currencies underlying Praxair's consolidated results and the exchange rates used to translate the financial statements (rates of exchange expressed in units of local currency per U.S. dollar):

Currency	Percentage of YTD 2016 Consolidated Sales		Exchange Rate for Income Statement		Exchange Rate for Balance Sheet	
			Year-To-Date Average		June 30,	December 31,
			2016	2015	2016	2015
Brazilian real	11	%	3.69	2.96	3.21	3.90
Euro	10	%	0.90	0.90	0.90	0.92
Canadian dollar	8	%	1.33	1.23	1.29	1.38
Chinese yuan	6	%	6.54	6.22	6.65	6.49
Mexican peso	5	%	18.06	15.13	18.28	17.21
Korean won	4	%	1,182	1,099	1,152	1,175
India rupee	3	%	67.18	62.85	67.53	66.15
Argentine peso	1	%	14.32	8.82	15.04	13.04
Norwegian krone	1	%	8.43	7.75	8.36	8.84

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## Liquidity, Capital Resources and Other Financial Data

The following selected cash flow information provides a basis for the discussion that follows:

(Millions of dollars)	Six Months Ended	
	June 30, 2016	2015
<b>NET CASH PROVIDED BY (USED FOR):</b>		
<b>OPERATING ACTIVITIES</b>		
Net income (including noncontrolling interest)	\$775	\$747
Non-cash charges (credits):		
Add: Depreciation and amortization	553	555
Add: Deferred income taxes	4	(17 )
Add: Share-based compensation	22	17
Add: Cost reduction program and other charges (a)	—	135
Net income adjusted for non-cash charges	1,354	1,437
Less: Working capital	(130 )	(153 )
Less: Pension contributions	(6 )	(12 )
Other	41	(44 )
Net cash provided by operating activities	\$1,259	\$1,228
<b>INVESTING ACTIVITIES</b>		
Capital expenditures	(680 )	(749 )
Acquisitions, net of cash acquired	(325 )	(43 )
Divestitures and asset sales	8	240
Net cash used for investing activities	\$(997 )	\$(552 )
<b>FINANCING ACTIVITIES</b>		
Debt increases - net	690	201
Issuances (purchases) of common stock - net	(23 )	(408 )
Cash dividends - Praxair, Inc. shareholders	(428 )	(412 )
Excess tax benefit on share-based compensation	—	17
Noncontrolling interest transactions and other	(109 )	(38 )
Net cash (used for) provided by financing activities	\$130	\$(640 )
Effect of exchange rate changes on cash and cash equivalents	\$28	\$(26 )
Cash and cash equivalents, end-of-period	\$567	\$136
<b>OTHER FINANCIAL DATA (a)</b>		
Debt-to-capital ratio	62.8	% 62.4 %
After-tax return on capital ("ROC")	12.2	% 12.6 %
Return on Praxair, Inc. shareholder's equity ("ROE")	34.0	% 30.5 %
Adjusted EBITDA	\$1,716	\$1,825
Adjusted EBITDA Margin	33.2	% 33.2 %
Debt-to-adjusted EBITDA	2.6	2.4

(a) Non-GAAP measures. See the "Non-GAAP Financial Measures" section for definitions and reconciliations to reported amounts.

## Cash Flow from Operations

Cash provided by operations of \$1,259 million for the six months ended June 30, 2016 increased \$31 million, or 3%, versus 2015. The increase was primarily attributable to lower working capital requirements, lower pension contributions and



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favorable changes in other long-term assets and liabilities which were partially offset by lower net income adjusted for non-cash charges.

Praxair estimates that total 2016 required contributions to its pension plans will be in the area of \$10 million to \$15 million, of which \$6 million has been made through June 30, 2016. At a minimum, Praxair contributes to its pension plans to comply with local regulatory requirements (e.g., ERISA in the United States). Discretionary contributions in excess of the local minimum requirements are made based on many factors, including long-term projections of the plans' funded status, the economic environment, potential risk of overfunding, pension insurance costs and alternative uses of the cash. Changes to these factors can impact the amount and timing of discretionary contributions from year to year.

### Investing

Net cash used for investing of \$997 million for the six months ended June 30, 2016 increased \$445 million versus 2015 primarily due to higher acquisitions, net of cash acquired partially offset by lower capital expenditures and lower divestiture and asset sales.

Capital expenditures for the six months ended June 30, 2016 were \$680 million, \$69 million lower than the prior year. Capital expenditures related primarily to investments in new plant and production equipment for growth and density. Approximately 60% of the capital expenditures were in North America.

Acquisitions for the six months ended June 30, 2016 were \$325 million, primarily due to the acquisition of the European CO<sub>2</sub> business and packaged gases businesses in North America and Europe. Acquisitions in the prior-year period of \$43 million primarily relate to a packaged gases business in South America (see Note 3 to the condensed consolidated financial statements).

For the six months ended June 30, 2016 divestitures and asset sales were \$8 million. For the six months ended June 30, 2015 divestitures and asset sales were \$240 million, primarily due to the sale of fixed assets under construction to a customer in the North America energy market.

### Financing

Cash provided by financing activities was \$130 million for the six months ended June 30, 2016. Cash dividends of \$428 million were higher than the prior year due to a 5% increase in quarterly dividends per share from \$0.715 to \$0.75. Net repurchases of common stock decreased \$385 million due primarily to fewer treasury share purchases and debt net of cash increased by \$212 million. Noncontrolling interest transactions and other was \$109 million for the six months ended June 30, 2016 and primarily included the acquisition of the remaining 34% of Yara Praxair Holding AS (see Note 14 to the condensed consolidated financial statements).

In February 2016, Praxair repaid \$400 million of 0.75% notes that became due. Also in February 2016, Praxair redeemed \$325 million of 5.20% notes due March 2017 resulting in a \$16 million charge to interest expense (\$10 million after-tax, or \$0.04 per diluted share).

In February 2016, Praxair issued €550 million (\$607 million as of June 30, 2016) of 1.20% Euro-denominated notes due 2024. In addition, Praxair issued \$275 million of 3.20% notes due 2026.

### Debt Covenants

Praxair's \$2.5 billion senior unsecured credit facility and long-term debt agreements contain various covenants (refer to Note 11 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K). The only financial covenant requires Praxair not to exceed a maximum 70% leverage ratio, as defined in the agreements. For purposes of the leverage ratio calculation, consolidated shareholders' equity excludes changes in the cumulative foreign currency translation adjustments after June 30, 2011. At June 30, 2016 and December 31, 2015, the actual leverage ratio calculated in accordance with the agreements was 54% and 53%, respectively.

### Other Financial Data

Praxair's debt-to-capital ratio was 62.8% at June 30, 2016 versus 62.4% at June 30, 2015. Although net debt increased \$212 million versus the prior year, the increase in the debt-to-capital ratio is due primarily to currency translation impacts on the accumulated other comprehensive income (loss) component of equity.

After-tax return on capital ("ROC") was 12.2% for the four-quarter trailing period ended June 30, 2016 versus 12.6% for the 2015 period. This decrease is because net operating profit after tax ("NOPAT") has decreased more than capital has decreased, as more fully described throughout the previous MD&A sections.

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Return on equity ("ROE") for the four-quarter trailing period ended June 30, 2016 was strong at 34.0% and was 350 basis-points above the prior year.

Adjusted EBITDA decreased \$34 million to \$880 million for the quarter ended June 30, 2016 and decreased \$109 million to \$1,716 million for the six months ended June 30, 2016 versus prior year periods. These decreases in adjusted EBITDA are primarily due to lower adjusted net income versus the prior year primarily due to negative currency translation impacts and lower volumes.

Debt-to-Adjusted EBITDA was 2.6 and 2.4 for the four-quarter trailing period ended June 30, 2016 and 2015, respectively, primarily due to lower adjusted EBITDA. Additionally, currency translation had less impact on debt, since Praxair's debt is primarily denominated in U.S. dollars.

See the "Non-GAAP Financial Measures" section below for definitions and reconciliations of these non-GAAP measures to reported GAAP amounts.

## Legal Proceedings

See Note 12 to the condensed consolidated financial statements.

## Non-GAAP Financial Measures

The following non-GAAP measures are intended to supplement investors' understanding of the company's financial information by providing measures which investors, financial analysts and management use to help evaluate the company's financial leverage, return on net assets employed and operating performance. Special items which the company does not believe to be indicative of on-going business trends are excluded from these calculations so that investors can better evaluate and analyze historical and future business trends on a consistent basis. Definitions of these non-GAAP measures may not be comparable to similar definitions used by other companies and are not a substitute for similar GAAP measures.

The following are the non-GAAP measures presented in the MD&A:

	June 30,	
(Dollar amounts in millions, except per share data)	2016	2015
Debt-to-capital	62.8 %	62.4 %
After-tax return on capital	12.2 %	12.6 %
Return on equity	34.0 %	30.5 %
Adjusted EBITDA for the quarter ended	\$880	\$914
Adjusted EBITDA for the six months ended	\$1,716	\$1,825
Debt-to-adjusted EBITDA	2.6	2.4

	Quarter Ended		Six Months Ended	
	June 30,		June 30,	
2016 Adjusted amounts:*	2016	2015	2016	2015
Operating profit	\$588	\$626	\$1,142	\$1,249
Operating margin	22.1 %	22.9 %	22.1 %	22.7 %
EBITDA	\$880	\$914	\$1,716	\$1,825
EBITDA margin	33.0 %	33.4 %	33.2 %	33.2 %
Effective tax rate	26.8 %	28.0 %	27.2 %	28.0 %
Net income - Praxair, Inc.	\$399	\$420	\$765	\$836
Diluted earnings per share	1.39	1.45	2.67	2.88

\* The adjusted amounts for 2016 exclude the impact of a bond redemption which resulted in a \$16 million charge to interest expense (\$10 million after-tax or \$0.04 per diluted share). The adjusted amounts for 2015 exclude the impact



of the cost reduction program and other charges. See Note 2 and 5 to the condensed consolidated financial statements.

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The debt-to-capital ratio is a measure used by investors, financial analysts and management to provide a measure of financial leverage and insights into how the company is financing its operations.

	Six Months Ended June 30,	
	2016	2015
(Dollar amounts in millions)		
Debt	\$9,956	\$9,313
Less: cash and cash equivalents	(567 )	(136 )
Net debt	9,389	9,177
Equity and redeemable noncontrolling interests		
Redeemable noncontrolling interests	12	175
Praxair, Inc. shareholders' equity	5,140	4,964
Noncontrolling interests	407	380
Total equity and redeemable noncontrolling interests	5,559	5,519
Capital	\$14,948	\$14,696
DEBT-TO-CAPITAL RATIO	62.8 %	62.4 %

**After-tax Return on Capital (ROC)**

After-tax return on capital is a measure used by investors, financial analysts and management to evaluate the return on net assets employed in the business. ROC measures the after-tax operating profit that the company was able to generate with the investments made by all parties in the business (debt, noncontrolling interests and Praxair, Inc. shareholders' equity).

	2016			2015		
	Four Quarter Trailing	Six Months Ended June 30, 2016	Six Months Ended December 31, 2015	Four Quarter Trailing	Six Months Ended June 30, 2015	Six Months Ended December 31, 2014
(Dollar amounts in millions)						
Adjusted operating profit (see below)	\$2,386	\$1,142	\$1,244	\$2,623	\$1,249	\$1,374
Less: adjusted income taxes (see below)	(612 )	(285 )	(327 )	(674 )	(326 )	(348 )
Less: tax benefit on interest expense*	(48 )	(26 )	(22 )	(48 )	(23 )	(25 )
Add: equity income	43	21	22	44	21	23
Net operating profit after-tax (NOPAT)	\$1,769	\$852	\$917	\$1,945	\$921	\$1,024
Capital:						
June 30th	\$14,948			\$14,696		
March 31st	\$14,607			\$14,806		
December 31st, 2015 & 2014	\$13,990			\$15,285		
September 30th, 2015 & 2014	\$14,157			\$16,052		
June 30th, 2015 & 2014	\$14,696			\$16,459		
Five-quarter average	\$14,480			\$15,460		
AFTER-TAX ROC	12.2 %			12.6 %		

\* Tax benefit on interest expense is computed using the effective rate.

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## Return on Praxair, Inc. Shareholders' Equity (ROE)

Return on Praxair, Inc. shareholders' equity is a measure used by investors, financial analysts and management to evaluate operating performance from a Praxair shareholder perspective. ROE measures the net income attributable to Praxair, Inc. that the company was able to generate with the money shareholders have invested.

	2016	Six	Six	2015	Six	Six
	Four	Months	Months	Four	Months	Months
	Quarter	Ended	Ended	Quarter	Ended	Ended
	Trailing	June 30,	December	Trailing	June 30,	December
		2016	31, 2015		2015	31, 2014
(Dollar amounts in millions)						
Adjusted Net income - Praxair, Inc. (see below)	\$1,606	\$ 765	\$ 841	\$1,773	\$ 836	\$ 937
Praxair, Inc. shareholders' equity						
June 30th	\$5,140			\$4,964		
March 31st	\$4,888			\$5,018		
December 31st, 2015 & 2014	\$4,389			\$5,623		
September 30th, 2015 & 2014	\$4,264			\$6,552		
June 30th, 2015 & 2014	\$4,964			\$6,911		
Five-quarter average	\$4,729			\$5,814		
ROE	34.0	%		30.5	%	

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## Adjusted EBITDA, Adjusted EBITDA Margin and Debt-to-Adjusted EBITDA Ratio

These measures are used by investors, financial analysts and management to assess a company's profitability.

	Quarter Ended June 30,	
	2016	2015
(Dollar amounts in millions)		
Adjusted net income - Praxair, Inc. (see below)	\$399	\$420
Add: noncontrolling interest	10	12
Add: interest expense - net	44	40
Add: adjusted income taxes (see below)	146	164
Add: depreciation and amortization	281	278
Adjusted EBITDA	\$880	\$914
Reported Sales	\$2,665	\$2,738
Adjusted EBITDA Margin	33.0 %	33.4 %

	2016			2015		
	Four Quarter Trailing	Six Months Ended June 30,	Six Months Ended December	Four Quarter Trailing	Six Months Ended June 30,	Six Months Ended December
	2016	2016	31, 2015	2015	2015	31, 2014
(Dollar amounts in millions)						
Adjusted net income - Praxair, Inc. (see below)	\$1,606	\$765	\$ 841	\$1,773	\$836	\$ 937
Add: adjusted noncontrolling interest (see below)	41	20	21	48	24	24
Add: adjusted interest expense - net (see below)	170	93	77	172	84	88
Add: adjusted income taxes (see below)	612	285	327	674	326	348
Add: depreciation and amortization	1,104	553	551	1,147	555	592
ADJUSTED EBITDA	\$3,533	\$1,716	\$ 1,817	\$3,814	\$1,825	\$ 1,989
Reported Sales		5,174			5,495	
Adjusted EBITDA Margin		33.2 %			33.2 %	

Net Debt:	
June 30th	\$9,389
March 31st	\$9,183
December 31st, 2015 & 2014	\$9,084
September 30th, 2015 & 2014	\$9,344
June 30th, 2015 & 2014	\$9,177
Five-quarter average	\$9,236
DEBT-TO-ADJUSTED EBITDA RATIO	2.6
	2.4

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## Adjusted Amounts

The adjusted amounts for the six months ended June 30, 2016 exclude the impact of a bond redemption charge to interest expense of \$16 million (\$10 million net of tax) in the first quarter. See Note 5 to the condensed consolidated financial statements. Adjusted amounts for 2015 exclude the impact of the second and third quarter cost reduction program and other charges. Adjusted amounts for 2014 exclude the impact of the fourth quarter pension settlement, bond redemption, and Venezuela currency devaluation. The company does not believe these items are indicative of on-going business trends and, accordingly, the impact is excluded from the reported amounts so that investors can better evaluate and analyze historical and future business trends on a consistent basis. For a description of these items, refer to Notes 2, 5 & 11 to the consolidated financial statements of Praxair's 2015 Annual Report on Form 10-K. Certain amounts for 2015 and 2014 have been included for reference purposes and to facilitate the calculations contained herein.

	Quarter Ended		Six Months Ended		Six Months Ended		
	June 30,		June 30,		December 31,		
(Dollar amounts in millions, except per share data)	2016	2015	2016	2015	2015	2014	
Adjusted Operating Profit							
Reported operating profit	\$588	\$480	\$1,142	\$1,103	\$1,218	\$1,236	
Add: Venezuela currency devaluation	—	—	—	—	—	131	
Add: Pension settlement charge	—	—	—	—	7	7	
Add: Cost reduction program	—	146	—	146	19	—	
Total adjustments	—	146	—	146	26	138	
Adjusted operating profit	\$588	\$626	\$1,142	\$1,249	\$1,244	\$1,374	
Reported percent change	23	%	4	%	(1	)%	
Adjusted percent change	(6	)%	(9	)%	(9	)%	
Adjusted Interest Expense							
Reported interest expense	\$44	\$40	\$109	\$84	\$77	\$124	
Less: Bond redemption	—	—	(16	)	—	(36	)
Total adjustments	—	—	(16	)	—	(36	)
Adjusted interest expense	\$44	\$40	\$93	\$84	\$77	\$88	
Adjusted Income Taxes and Effective Tax Rate							
Reported income taxes	\$146	\$131	\$279	\$293	\$319	\$332	
Add: Bond redemption	—	—	6	—	—	14	
Add: Pension settlement charge	—	—	—	—	2	2	
Add: Cost reduction program	—	33	—	33	6	—	
Total adjustments	—	33	6	33	8	16	
Adjusted income taxes	\$146	\$164	\$285	\$326	\$327	\$348	

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	Quarter Ended June 30,		Six Months Ended June 30,		Six Months Ended December 31,	
(Dollar amounts in millions, except per share data)	2016	2015	2016	2015	2015	2014
Adjusted Effective Tax Rate						
Reported income before income taxes and equity investments	\$544	\$440	\$1,033	\$1,019	\$1,141	\$1,112
Add: Bond redemption	—	—	16	—	—	36
Add: Pension settlement charge	—	—	—	—	7	7
Add: Venezuela currency devaluation	—	—	—	—	—	131
Add: Cost reduction program	—	146	—	146	19	—
Total adjustments	—	146	16	146	26	174
Adjusted income before income taxes and equity investments	\$544	\$586	\$1,049	\$1,165	\$1,167	\$1,286
Reported effective tax rate	26.8 %	29.8 %	27.0 %	28.8 %	28.0 %	29.9 %
Adjusted effective tax rate	26.8 %	28.0 %	27.2 %	28.0 %	28.0 %	27.1 %
Adjusted Noncontrolling Interests						
Reported noncontrolling interests	\$10	\$11	\$20	\$23	\$21	\$24
Add: Cost reduction program	—	1	—	1	—	—
Total adjustments	—	1	—	1	—	—
Adjusted Noncontrolling Interests	\$10	\$12	\$20	\$24	\$21	\$24
Adjusted Net Income - Praxair, Inc.						
Reported net income - Praxair, Inc.	\$399	\$308	\$755	\$724	\$823	\$779
Add: Bond redemption	—	—	10	—	—	22
Add: Pension settlement charge	—	—	—	—	5	5
Add: Venezuela currency devaluation	—	—	—	—	—	131
Add: Cost reduction program	—	112	—	112	13	—
Total adjustments	—	112	10	112	18	158
Adjusted net income - Praxair, Inc.	\$399	\$420	\$765	\$836	\$841	\$937
Reported percent change	30 %		4 %		6 %	
Adjusted percent change	(5 )%		(8 )%		(10 )%	
Adjusted Diluted Earnings Per Share						
Reported diluted EPS	\$1.39	\$1.06	\$2.63	\$2.49		
Add: Bond redemption	—	—	0.04	—		
Add: Cost reduction program	—	0.39	—	0.39		
Total adjustments	\$—	\$0.39	\$0.04	\$0.39		
Adjusted diluted EPS	\$1.39	\$1.45	\$2.67	\$2.88		
Reported percent change	31 %		6 %			
Adjusted percent change	(4 )%		(7 )%			

## New Accounting Standards

Refer to Note 1 of the condensed consolidated financial statements.

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Forward-looking Statements

This document contains “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995. These statements are based on management’s reasonable expectations and assumptions as of the date the statements are made but involve risks and uncertainties. These risks and uncertainties include, without limitation: the performance of stock markets generally; developments in worldwide and national economies and other international events and circumstances; changes in foreign currencies and in interest rates; the cost and availability of electric power, natural gas and other raw materials; the ability to achieve price increases to offset cost increases; catastrophic events including natural disasters, epidemics and acts of war and terrorism; the ability to attract, hire, and retain qualified personnel; the impact of changes in financial accounting standards; the impact of changes in pension plan liabilities; the impact of tax, environmental, healthcare and other legislation and government regulation in jurisdictions in which the company operates; the cost and outcomes of investigations, litigation and regulatory proceedings; the impact of potential unusual or non-recurring items; continued timely development and market acceptance of new products and applications; the impact of competitive products and pricing; future financial and operating performance of major customers and industries served; the impact of information technology system failures, network disruptions and breaches in data security; and the effectiveness and speed of integrating new acquisitions into the business. These risks and uncertainties may cause actual future results or circumstances to differ materially from the GAAP or adjusted projections or estimates contained in the forward-looking statements. The company assumes no obligation to update or provide revisions to any forward-looking statement in response to changing circumstances. The above listed risks and uncertainties are further described in Item 1A (Risk Factors) in the company's latest Annual Report on Form 10-K filed with the SEC which should be reviewed carefully. Please consider the company’s forward-looking statements in light of those risks.

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Item 3. Quantitative and Qualitative Disclosures About Market Risk

Refer to Item 7A. to Part II of Praxair's 2015 Annual Report on Form 10-K for discussion.

Item 4. Controls and Procedures

Based on an evaluation of the effectiveness of Praxair's disclosure controls and procedures, which was made under the supervision and with the participation of management, including Praxair's principal executive officer and principal financial officer, the principal executive officer and principal financial officer have each concluded that, (a) as of the end of the quarterly period covered by this report, such disclosure controls and procedures are effective in ensuring that information required to be disclosed by Praxair in reports that it files under the Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and accumulated and communicated to management including Praxair's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure.

There were no changes in Praxair's internal control over financial reporting that occurred during the quarterly (b) period covered by this report that have materially affected, or are reasonably likely to materially affect, Praxair's internal control over financial reporting.



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## PART II - OTHER INFORMATION

## Praxair, Inc. and Subsidiaries

## Item 1. Legal Proceedings

See Note 12 to the condensed consolidated financial statements for a description of current legal proceedings.

## Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in Item 1a to Part I of Praxair's 2015 Annual Report on Form 10-K.

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

Purchases of Equity Securities- Certain information regarding purchases made by or on behalf of the company or any affiliated purchaser (as defined in Rule 10b-18(a)(3) under the Securities Exchange Act of 1934, as amended) of its common stock during the quarter ended June 30, 2016 is provided below:

Period	Total Number of Shares Purchased (Thousands)	Average Price Paid Per Share	Total Numbers of Shares Purchased as Part of Publicly Announced Program (1) (Thousands)	Approximate Dollar Value of Shares that May Yet be Purchased Under the Program (2) (Millions)
April 2016	—	\$ —	—	\$ 1,786
May 2016	350	\$ 112.61	350	\$ 1,747
June 2016	106	\$ 109.16	106	\$ 1,735
Second Quarter 2016	456	\$ 111.81	456	\$ 1,735

On January 28, 2014, the Company's board of directors approved the repurchase of \$1.5 billion of its common (1) stock (2014 program) which could take place from time to time on the open market (which could include the use of 10b5-1 trading plans) or through negotiated transactions, subject to market and business conditions.

As of June 30, 2016, the Company purchased \$1,265 million of its common stock pursuant to the 2014 program, leaving an additional \$235 million remaining authorized under the 2014 program. The 2014 program does not have any stated expiration date. In addition, on July 28, 2015, the Company's board of directors approved the repurchase (2) of \$1.5 billion of its common stock ("2015 program") which could take place from time to time on the open market (which could include the use of 10b5-1 trade plans) or through negotiated transactions, subject to market and business conditions. The 2015 program does not have any stated expiration date. The 2015 program is in addition to the 2014 program.

## Item 3. Defaults Upon Senior Securities

None.

## Item 4. Mine Safety Disclosures

Not applicable.

## Item 5. Other Information

On July 26, 2016, the Board of Directors of Praxair, Inc. elected Kelcey E. Hoyt as Vice President and Controller of Praxair, effective August 1, 2016. Ms. Hoyt will assume that position from Elizabeth T. Hirsch who is retiring from Praxair after eighteen years of service with the company.

Prior to becoming Controller, Ms. Hoyt, age 47, served as Praxair's Director of Investor Relations since 2010. She joined Praxair in 2002 and served as Director of Corporate Accounting and SEC Reporting through 2008, and later served as Controller for various divisions within Praxair's North American Industrial Gas business. Previously, she had five years of experience in audit at KPMG, LLP. She is a certified public accountant.



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Item 6. Exhibits

(a) Exhibits

12.01 Computation of Ratio of Earnings to Fixed Charges.

31.01 Rule 13a-14(a) Certification

31.02 Rule 13a-14(a) Certification

32.01 Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).

32.02 Section 1350 Certification (such certifications are furnished for the information of the Commission and shall not be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act).

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema

101.CAL XBRL Taxonomy Extension Calculation Linkbase

101.LAB XBRL Taxonomy Extension Label Linkbase

101.PRE XBRL Taxonomy Extension Presentation Linkbase

101.DEF XBRL Taxonomy Extension Definition Linkbase

\* Indicates a management contract or compensatory plan or arrangement.

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SIGNATURE

Praxair, Inc. and Subsidiaries

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.

PRAXAIR, INC.

(Registrant)

Date: July 28, 2016 By: /s/ Elizabeth T. Hirsch

Elizabeth T. Hirsch  
Vice President and Controller  
(On behalf of the Registrant  
and as Chief Accounting Officer)