LyondellBasell Industries N.V.
Form 10-Q
July 28, 2017
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2017

or

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

For the transition period from__________to___________

Commission file number: 001-34726

LYONDELLBASELL INDUSTRIES N.V.

(Exact name of registrant as specified in its charter)

The Netherlands **(State or other jurisdiction of** **incorporation or organization)**	**98-0646235** **(I.R.S. Employer** **Identification No.)**

1221 McKinney St.,	**4th Floor, One Vine Street**	**Delftseplein 27E**
Suite 300	**London**	**3013 AA Rotterdam**
Houston, Texas	**W1J0AH**	**The Netherlands**
USA 77010	**The United Kingdom**	

(Addresses of registrant s principal executive offices)

(713) 309-7200 +44 (0) 207 220 2600 +31 (0)10 275 5500
(Registrant s telephone numbers, including area codes)

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 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, smaller reporting company, or an emerging growth company. See the definitions of large accelerated filer, accelerated filer, and smaller reporting company, and emerging growth company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court. Yes No

The registrant had 395,803,946 ordinary shares, 0.04 par value, outstanding at July 25, 2017 (excluding 182,636,217 treasury shares).

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PART I. FINANCIAL INFORMATION

ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

LYONDELLBASELL INDUSTRIES N.V.

CONSOLIDATED STATEMENTS OF INCOME

	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars, except earnings per share	**2017**	**2016**	**2017**	**2016**
Sales and other operating revenues:				
Trade	$ 8,220	$ 7,132	$ 16,463	$ 13,688
Related parties	183	196	370	383
	8,403	7,328	16,833	14,071
Operating costs and expenses:				
Cost of sales	6,601	5,702	13,592	10,868
Selling, general and administrative expenses	200	199	404	392
Research and development expenses	25	24	50	48
	6,826	5,925	14,046	11,308
Operating income	1,577	1,403	2,787	2,763
Interest expense	(95)	(83)	(302)	(165)
Interest income	4	4	10	9
Other income (expense), net	29	(3)	59	85
Income from continuing operations before equity investments and income taxes	1,515	1,321	2,554	2,692
Income from equity investments	78	117	159	208
Income from continuing operations before income taxes	1,593	1,438	2,713	2,900
Provision for income taxes	459	346	774	778
Income from continuing operations	1,134	1,092	1,939	2,122
Loss from discontinued operations, net of tax	(4)	(1)	(12)	(1)
Net income	1,130	1,091	1,927	2,121
Net loss attributable to non-controlling interests	1		1	
Net income attributable to the Company shareholders	$ 1,131	$ 1,091	$ 1,928	$ 2,121
Earnings per share:				
Net income (loss) attributable to the Company shareholders				
Basic:				
Continuing operations	$ 2.83	$ 2.57	$ 4.82	$ 4.94

Discontinued operations		(0.01)				(0.03)		
	$	2.82	$	2.57	$	4.79	$	4.94
Diluted:								
Continuing operations	$	2.82	$	2.56	$	4.81	$	4.93
Discontinued operations		(0.01)				(0.03)		
	$	2.81	$	2.56	$	4.78	$	4.93

See Notes to the Consolidated Financial Statements.

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CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Net income	$ 1,130	$ 1,091	$ 1,927	$ 2,121
Other comprehensive income (loss), net of tax				
Financial derivatives:				
Gain (loss) on cash flow hedges arising during the period	(158)	5	(160)	(189)
Reclassification adjustment included in net income	133	(43)	158	47
Income tax expense (benefit)	(4)	12	(3)	(41)
Financial derivatives, net of tax	(21)	(50)	1	(101)
Unrealized losses on available-for-sale securities:				
Unrealized holding losses arising during the period	(5)		(9)	(6)
Income tax benefit	(1)		(2)	
Unrealized losses on available-for-sale securities, net of tax	(4)		(7)	(6)
Unrealized gains (losses) on available-for-sale securities held by equity investees:				
Unrealized holding gains (losses) arising during the period	(2)		9	
Income tax expense (benefit)				
Unrealized gains (losses) on available-for-sale securities held by equity investees, net of tax	(2)		9	
Defined pension and other postretirement benefit plans:				
Reclassification adjustment for net actuarial loss included in net income	9	7	19	15
Income tax expense	3	2	6	5
Defined pension and other postretirement benefit plans, net of tax	6	5	13	10
Foreign currency translation adjustments:				
Unrealized gains (losses) arising during the period	63	(29)	101	56
Income tax expense (benefit)	(21)	1	(19)	(7)
Foreign currency translation adjustments, net of tax	84	(30)	120	63
Total other comprehensive income (loss)	63	(75)	136	(34)

Comprehensive income	1,193	1,016	2,063	2,087
Comprehensive loss attributable to non-controlling interests	1		1	
Comprehensive income attributable to the Company shareholders	$ 1,194	$ 1,016	$ 2,064	$ 2,087

See Notes to the Consolidated Financial Statements.

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LYONDELLBASELL INDUSTRIES N.V.

CONSOLIDATED BALANCE SHEETS

Millions of dollars	June 30, 2017	December 31, 2016
ASSETS		
Current assets:		
Cash and cash equivalents	$ 734	$ 875
Restricted cash	6	3
Short-term investments	1,278	1,147
Accounts receivable:		
Trade, net	2,904	2,716
Related parties	182	126
Inventories	4,007	3,809
Prepaid expenses and other current assets	964	923
Total current assets	10,075	9,599
Property, plant and equipment at cost	15,548	14,635
Less: Accumulated depreciation	(4,997)	(4,498)
Property, plant and equipment, net	10,551	10,137
Investments and long-term receivables:		
Investment in PO joint ventures	423	415
Equity investments	1,595	1,575
Other investments and long-term receivables	18	20
Goodwill	559	528
Intangible assets, net	499	550
Other assets	398	618
Total assets	$ 24,118	$ 23,442

See Notes to the Consolidated Financial Statements.

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LYONDELLBASELL INDUSTRIES N.V.

CONSOLIDATED BALANCE SHEETS

Millions of dollars, except shares and par value data	June 30, 2017	December 31, 2016
LIABILITIES AND EQUITY		
Current liabilities:		
Current maturities of long-term debt	$ 2	$ 2
Short-term debt	561	594
Accounts payable:		
Trade	1,792	2,028
Related parties	525	501
Accrued liabilities	1,251	1,415
Total current liabilities	4,131	4,540
Long-term debt	8,496	8,385
Other liabilities	2,253	2,113
Deferred income taxes	2,370	2,331
Commitments and contingencies		
Stockholders equity:		
Ordinary shares, 0.04 par value, 1,275 million shares authorized, 397,457,391 and 404,046,331 shares outstanding, respectively	31	31
Additional paid-in capital	10,198	10,191
Retained earnings	13,506	12,282
Accumulated other comprehensive loss	(1,375)	(1,511)
Treasury stock, at cost, 180,982,772 and 174,389,139 ordinary shares, respectively	(15,494)	(14,945)
Total Company share of stockholders equity	6,866	6,048
Non-controlling interests	2	25
Total equity	6,868	6,073
Total liabilities and equity	$ 24,118	$ 23,442

See Notes to the Consolidated Financial Statements.

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CONSOLIDATED STATEMENTS OF CASH FLOWS

Millions of dollars	Six Months Ended June 30, 2017	2016
Cash flows from operating activities:		
Net income	$ 1,927	$ 2,121
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	582	534
Amortization of debt-related costs	8	9
Charges related to repayment of debt	48	
Equity investments		
Equity income	(159)	(208)
Distributions of earnings, net of tax	189	249
Deferred income taxes	133	104
Gain on sale of business		(78)
Gain on sale of assets	(31)	
Changes in assets and liabilities that provided (used) cash:		
Accounts receivable	(138)	(281)
Inventories	(95)	26
Accounts payable	(229)	161
Other, net	3	(76)
Net cash provided by operating activities	2,238	2,561
Cash flows from investing activities:		
Expenditures for property, plant and equipment	(828)	(1,090)
Proceeds from disposal of assets	29	
Payments for repurchase agreements	(512)	(168)
Proceeds from repurchase agreements	381	98
Purchases of available-for-sale securities	(653)	(607)
Proceeds from maturities of available-for-sale securities	487	657
Proceeds from maturities of held-to-maturity securities	75	
Payment for acquisition of business and equity method investment	(21)	
Net proceeds from sale of business		137
Proceeds from settlement of net investment hedges		795
Payments for settlement of net investment hedges		(850)
Other, net	(12)	(43)
Net cash used in investing activities	(1,054)	(1,071)

See Notes to the Consolidated Financial Statements.

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LYONDELLBASELL INDUSTRIES N.V.

CONSOLIDATED STATEMENTS OF CASH FLOWS

Millions of dollars	**Six Months Ended June 30, 2017**	**2016**
Cash flows from financing activities:		
Repurchases of Company ordinary shares	(570)	(1,682)
Dividends paid	(704)	(698)
Issuance of long-term debt	990	812
Repayment of long-term debt	(1,000)	
Debt extinguishment costs	(65)	
Net proceeds from commercial paper	1	200
Payments of debt issuance costs	(8)	(5)
Other, net	(3)	1
Net cash used in financing activities	(1,359)	(1,372)
Effect of exchange rate changes on cash	37	15
Increase (decrease) in cash and cash equivalents and restricted cash	(138)	133
Cash and cash equivalents and restricted cash at beginning of period	878	931
Cash and cash equivalents and restricted cash at end of period	$ 740	$ 1,064

See Notes to the Consolidated Financial Statements.

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CONSOLIDATED STATEMENT OF STOCKHOLDERS EQUITY

Millions of dollars	Ordinary Shares Issued	Ordinary Shares Treasury	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Company Share of Stockholders Equity	Non-Controlling Interests
Balance, December 31, 2016	$ 31	$ (14,945)	$ 10,191	$ 12,282	$ (1,511)	$ 6,048	$ 25
Net income (loss)				1,928		1,928	(1)
Other comprehensive income					136	136	
Share-based compensation		30	6			36	
Dividends ($1.75 per share)				(704)		(704)	
Repurchases of Company ordinary shares		(579)				(579)	
Purchase of non- controlling interest			1			1	(22)
Balance, June 30, 2017	$ 31	$ (15,494)	$ 10,198	$ 13,506	$ (1,375)	$ 6,866	$ 2

See Notes to the Consolidated Financial Statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. Basis of Presentation

LyondellBasell Industries N.V., together with its consolidated subsidiaries (collectively LyondellBasell N.V.), is a worldwide manufacturer of chemicals and polymers, a refiner of crude oil, a significant producer of gasoline blending components and a developer and licensor of technologies for production of polymers. Unless otherwise indicated, the Company, we, us, our or similar words are used to refer to LyondellBasell N.V.

The accompanying Consolidated Financial Statements are unaudited and have been prepared from the books and records of LyondellBasell N.V. in accordance with the instructions to Form 10-Q and Rule 10-1 of Regulation S-X for interim financial information. Accordingly, they do not include all of the information and notes required by accounting principles generally accepted in the United States (U.S. GAAP) for complete financial statements. In our opinion, all adjustments, consisting only of normal recurring adjustments, considered necessary for a fair presentation have been included. The results for interim periods are not necessarily indicative of results for the entire year. These Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and notes thereto included in the Company s Annual Report on Form 10-K for the year ended December 31, 2016.

2. Accounting and Reporting Changes

Recently Adopted Guidance

Intangibles-Goodwill and Other In January 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASC) 2017-04, *Intangibles Goodwill and other (Topic 350): Simplifying the Test for Goodwill Impairment* to simplify the accounting for goodwill impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. Goodwill impairment will now be the amount by which a reporting unit s carrying value exceeds its fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. All other goodwill impairment guidance will remain largely unchanged. Entities will continue to have the option to perform a qualitative assessment to determine if a quantitative impairment test is necessary. The same one-step impairment test will be applied to goodwill at all reporting units, even those with zero or negative carrying amounts. Entities will be required to disclose the amount of goodwill at reporting units with zero or negative carrying amounts. The early adoption of this amendment in the first quarter of 2017 did not have a material impact on our Consolidated Financial Statements.

Inventories In July 2015, the FASB issued ASU 2015-11, *Inventory (Topic 330): Simplifying the Measurement of Inventory.* Under this new guidance, entities that measure inventory using any method other than last-in, first-out or the retail inventory method will be required to measure inventory at the lower of cost and net realizable value. The amendments in this ASU, which should be applied prospectively, are effective for annual and interim periods beginning after December 15, 2016. The adoption of this amendment did not have a material impact on our Consolidated Financial Statements.

Compensation In March 2016, the FASB issued ASU 2016-09, *Compensation Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. This ASU simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The amendments in this ASU are effective for public entities for annual and interim periods beginning after December 15, 2016. Various transition methods are prescribed depending on the aspect of accounting impacted by the amended guidance. Adoption of the amendments in this guidance in the first quarter of 2017 did not have a material impact on our Consolidated Financial Statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Statement of Cash Flows In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*. The updated accounting requirement is intended to reduce diversity in practice in the classification of certain transactions in the statement of cash flows. Such transactions include, but are not limited to, debt prepayment or debt extinguishment costs, settlement of zero coupon debt instruments, contingent consideration payments made after a business combination and distributions received from equity method of investments. The amendments in this ASU are effective for public entities for annual and interim periods beginning after December 15, 2018, with early adoption permitted. Early adoption of the amendments in this guidance in the second quarter of 2017 resulted in a reclassification of cash flows related to debt extinguishment costs incurred in March 2017 of $65 million from operating to financing activity cash flows. Other aspects of the amendment did not have a material impact on our Consolidated Statement of Cash Flows.

Statement of Cash Flows In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows: Restricted Cash*. The ASU requires entities to include restricted cash and restricted cash equivalents in their cash and cash-equivalent balances in the statement of cash flows. Early retrospective adoption of this amendment in the second quarter of 2017 did not have a material impact on our Consolidated Statement of Cash Flows.

Accounting Guidance Issued But Not Adopted as of June 30, 2017

Revenue Recognition In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*, which supersedes the current revenue recognition requirements in ASC 606, *Revenue Recognition.* Under this guidance, entities should recognize revenues to depict the transfer of promised goods or services to customers in an amount that reflects the consideration the entity expects to receive in exchange for those goods or services. This ASU also requires enhanced disclosures. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which deferred the original effective date for one year to annual and interim periods beginning after December 15, 2017. Retrospective and modified retrospective application is allowed.

Amendments to Revenue Recognition In 2016 the FASB issued several amendments to *Topic 606, Revenue from Contracts with Customers.* ASU 2016-08, *Principal versus Agent Considerations,* contains amendments that clarify the implementation guidance on principal versus agent considerations. ASU 2016-10, *Identifying Performance Obligations and Licensing* clarifies the guidance in the new revenue standard on identifying performance obligations and accounting for licenses of intellectual property. The FASB also issued ASU 2016-12, *Narrow-Scope Improvements and Practical Expedients,* which further clarifies the new revenue guidance primarily in the areas of collectability, noncash consideration, presentation of sales tax, and transition. The FASB also issued ASU 2016-20 *Technical Corrections and Improvements to Topic 606*, which provides numerous improvements related to the Topic 606. All amendments are effective with the same date as ASU 2014-09. Management is currently assessing the effects of applying the new standard and has preliminarily determined that there will not be a material impact on our Consolidated Financial Statements. We expect to use the modified retrospective method. We will complete any required changes to our systems and processes, including updating our internal controls, during the remainder of 2017.

Financial Instruments In January 2016, the FASB issued ASU 2016-01, *Financial Instruments-Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*. The new guidance in this ASU includes a requirement for equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income. Prospective application of this ASU is required for public entities for annual and interim periods beginning on or after December 15, 2017. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Leases In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842),* which supersedes the existing guidance for lease accounting in ASC 840, *Leases*. Under the new guidance, for leases with a term longer than 12 months a lessee should recognize a liability for lease payments (the lease liability) and a right-of-use asset representing its right to use the underlying asset for the lease term. Topic 842 retains a classification distinction between finance leases and operating leases, with the classification affecting the pattern of expense recognition in the income statement. This ASU also requires enhanced disclosures. A modified retrospective transition approach is required for annual and interim periods beginning on or after December 15, 2018. Early adoption is permitted. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements via an extensive review of numerous existing lease contracts and other purchase obligations that contain embedded lease features, both classified as operating leases under the existing guidance.

Financial Instruments In June 2016, the FASB issued ASU 2016-13, *Financial Instruments Credit Losses (Topic 326)*: *Measurement of Credit Losses on Financial Instruments*. This amendment requires financial assets measured at amortized cost basis to be presented at the net amount expected to be collected, resulting in the use of a current expected credit loss (CECL) model when measuring an impairment of financial instruments. Credit losses related to available-for-sale securities should be recorded in the consolidated income statement through an allowance for credit losses. Estimated credit losses utilizing the CECL model are based on reasonable use of historical experience, current conditions and forecasts that affect the collectability of reported financial assets. This ASU also modifies the impairment model for available-for-sale debt securities by eliminating the concept of other than temporary as well as providing a simplified accounting model for purchased financial assets with credit deterioration since their origination. The guidance will be effective for public entities for annual and interim periods beginning after December 15, 2019. Early adoption is permitted. We are currently assessing the impact of the amendments in this guidance on our Consolidated Financial Statements.

Income Taxes In October 2016, the FASB issued ASU 2016-16, *Accounting for Income Taxes: Intra-Entity Asset Transfers of Assets Other than Inventory*. The ASU is aimed at reducing complexity in accounting standards. Under current GAAP, the tax effects of intra-entity asset transfers (intercompany sales) are deferred until the transferred asset is sold to a third party or otherwise recovered through use. The new guidance eliminates the exception for all intra-entity sales of assets other than inventory, and a reporting entity would recognize tax expense from the sale of assets in the seller s tax jurisdiction when the transfer occurs, even though the pre-tax effects of that transaction are eliminated in consolidation. Any deferred tax asset that arises in the buyer s jurisdiction would also be recognized at the time of the transfer. The new guidance will be effective for public entities for annual periods beginning after December 15, 2017. Early adoption is permitted. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

Business Combinations In January 2017, the FASB issued ASU 2017-01, *Clarifying the Definition of a Business.* This ASU clarifies the definition of a business with the objective of adding guidance to assist entities with evaluating whether a transaction should be accounted for as an acquisition (or disposal) of an asset or a business. The amendments will be effective for public entities for annual and interim periods beginning after December 15, 2017. Early adoption is permitted. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

Other Income Gains and Losses from the Derecognition of Nonfinancial Assets In February 2017, the FASB issued ASU 2017-05, *Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets*. The guidance provides clarification about the term *in substance nonfinancial asset*; other aspects of the scope of Subtopic 610-20 *Other Income* which were confusing and complex; and how an entity should account for partial sales of nonfinancial assets once the amendments in Update 2014-09 become effective. The amendments will be effective for public entities for annual and interim periods beginning after December 15, 2017. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Compensation Retirement Benefits In March 2017, the FASB issued ASU 2017-07, *Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. The guidance will require changes in presentation of current service cost and other components of net benefit cost. The amendments will be effective for public entities for annual and interim periods beginning after December 15, 2017. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

Receivables Nonrefundable Fees and Other Costs In March 2017, the FASB issued ASU 2017-08, *Premium Amortization on Purchased Callable Debt Securities*. This new guidance requires the premium on callable debt securities to be amortized to the earliest call date. Under current U.S. GAAP, premiums on callable debt securities are generally amortized over the contractual life of the security. The amendments will be effective for public entities for annual and interim periods beginning after December 15, 2018. Early adoption is permitted. We do not expect the adoption of this new guidance to have a material impact on our Consolidated Financial Statements.

Compensation Stock Compensation In May 2017, the FASB issued ASU 2017-09, *Stock Compensation: Scope of Modification Accounting*. The current definition of the term modification refers to a change in any of the terms and conditions of a share-based payment award. The amendments in this update provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. The amendments will be effective for public entities for annual and interim periods beginning after December 15, 2017. Early adoption is permitted. We are currently assessing the impact of this new guidance on our Consolidated Financial Statements.

3. Accounts Receivable

Our allowance for doubtful accounts receivable, which is reflected in the Consolidated Balance Sheets as a reduction of accounts receivable, totaled $17 million and $16 million at June 30, 2017 and December 31, 2016, respectively.

4. Inventories

Inventories consisted of the following components:

Millions of dollars	June 30, 2017	December 31, 2016
Finished goods	$ 2,666	$ 2,575
Work-in-process	180	154
Raw materials and supplies	1,161	1,080
Total inventories	$ 4,007	$ 3,809

For information related to lower of cost or market inventory valuation adjustments recognized during the six months ended June 30, 2016, see Note 13.

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

5. Debt

Long-term loans, notes and other long-term debt consisted of the following:

Millions of dollars	June 30, 2017	December 31, 2016
Senior Notes due 2019, $2,000 million, 5.0% ($4 million of debt issuance cost)	$ 954	$ 1,906
Senior Notes due 2021, $1,000 million, 6.0% ($8 million of debt issuance cost)	992	988
Senior Notes due 2024, $1,000 million, 5.75% ($8 million of debt issuance cost)	992	991
Senior Notes due 2055, $1,000 million, 4.625% ($16 million of discount; $11 million of debt issuance cost)	973	972
Guaranteed Notes due 2044, $1,000 million, 4.875% ($11 million of discount; $10 million of debt issuance cost)	979	979
Guaranteed Notes due 2043, $750 million, 5.25% ($21 million of discount; $7 million of debt issuance cost)	722	721
Guaranteed Notes due 2023, $750 million, 4.0% ($6 million of discount; $4 million of debt issuance cost)	740	739
Guaranteed Notes due 2027, $300 million, 8.1%	300	300
Guaranteed Notes due 2022, 750 million, 1.875% ($3 million of discount; $4 million of debt issuance cost)	849	785
Guaranteed Notes due 2027, $1,000 million, 3.5% ($10 million of discount; $8 million of debt issuance cost)	992	
Other	5	6
Total	8,498	8,387
Less current maturities	(2)	(2)
Long-term debt	$ 8,496	$ 8,385

Gains (losses) related to fair value adjustments associated with the fair value hedge accounting treatment of our fixed-for-floating interest rate swaps for the applicable periods are as follows:

		Three Months Ended June 30,		Six Months Ended June 30,		Year Ended December 31,	Cumulative Amount Since Inception
Millions of dollars	Inception Year	2017	2016	2017	2016	2016	
Senior Notes due 2019, 5.0%	2014	$ (6)	$ 4	$ (42)	$ (15)	$ 42	$ 42

Senior Notes due 2021, 6.0%	2016	(5)	(3)	3	
Guaranteed Notes due 2027, 3.5%	2017	(9)	(10)		(10)

These fair value adjustments are recognized in Interest expense in the Consolidated Statements of Income.

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Short-term loans, notes, and other short-term debt consisted of the following:

Millions of dollars	June 30, 2017	December 31, 2016
$2,500 million Senior Revolving Credit Facility	$	$
$900 million U.S. Receivables Securitization Facility		
Commercial paper	498	500
Financial payables to equity investees	1	2
Precious metal financings	59	90
Other	3	2
Total short-term debt	$ 561	$ 594

Long-Term Debt

Guaranteed Notes due 2027 In March 2017, LYB International Finance II B.V. (LYB Finance II), a direct, 100% owned finance subsidiary of LyondellBasell Industries N.V., as defined in Rule 3-10(b) of Regulation S-X, issued $1,000 million of 3.5% guaranteed notes due 2027 at a discounted price of 98.968%.

These unsecured notes, which are fully and unconditionally guaranteed by LyondellBasell Industries N.V., rank equally in right of payment to all of LYB Finance II s existing and future unsecured indebtedness and to all of LyondellBasell N.V. s existing and future unsubordinated indebtedness. There are no significant restrictions that would impede LyondellBasell N.V., as guarantor, from obtaining funds by dividend or loan from its subsidiaries.

The indenture governing these notes contains limited covenants, including those restricting our ability and the ability of our subsidiaries to incur indebtedness secured by significant property or by capital stock of subsidiaries that own significant property, enter into certain sale and lease-back transactions with respect to any significant property or enter into consolidations, mergers or sales of all or substantially all of our assets.

The notes may be redeemed before the date that is three months prior to the scheduled maturity date at a redemption price equal to the greater of 100% of the principal amount of the notes redeemed and the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable Treasury Yield plus 20 basis points) on the notes to be redeemed. The notes may also be redeemed on or after the date that is three months prior to the scheduled maturity date of the notes at a redemption price equal to 100% of the principal amount of the notes redeemed plus accrued and unpaid interest.

Senior Notes due 2019 In March 2017, we redeemed $1,000 million aggregate principal amount of our outstanding 5% senior notes due 2019, and paid $65 million in make-whole premiums. In conjunction with the redemption of these notes, we recognized non-cash charges of $4 million for the write-off of unamortized debt issuance costs and $44 million for the write-off of the cumulative fair value hedge accounting adjustment related to the redeemed notes.

Short-Term Debt

Senior Revolving Credit Facility In June 2017, the term of our $2,500 million revolving credit facility was extended for one year to June 2022 pursuant to a consent agreement. The revolving credit facility may be used for dollar and euro denominated borrowings, has a $500 million sublimit for dollar and euro denominated letters of credit, a $1,000 million uncommitted accordion feature, and supports our commercial paper program. The aggregate balance of outstanding borrowings, including amounts outstanding under our commercial paper program, and letters

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

of credit under this facility may not exceed $2,500 million at any given time. Borrowings under the facility bear interest at a Base Rate or LIBOR, plus an applicable margin. Additional fees are incurred for the average daily unused commitments.

The facility contains customary covenants and warranties, including specified restrictions on indebtedness and liens. In addition, we are required to maintain a leverage ratio at the end of every fiscal quarter of 3.50 to 1.00 or less for the period covering the most recent four quarters. We are in compliance with these covenants as of June 30, 2017. At June 30, 2017, we had $498 million of outstanding commercial paper, no outstanding letters of credit and no outstanding borrowings under this facility.

Commercial Paper Program We have a commercial paper program under which we may issue up to $2,500 million of privately placed, unsecured, short-term promissory notes (commercial paper) under this program, which is backed by our $2,500 million Senior Revolving Credit Facility. Proceeds from the issuance of commercial paper may be used for general corporate purposes, including dividends and share repurchases. Interest rates on the commercial paper outstanding at June 30, 2017 are based on the term of the notes and range from 120 to 150 basis points.

U.S. Receivables Securitization Facility Our $900 million U.S. accounts receivable securitization facility, which expires in 2018, has a purchase limit of $900 million in addition to a $300 million uncommitted accordion feature. This facility provides liquidity through the sale or contribution of trade receivables by certain of our U.S. subsidiaries to a wholly owned, bankruptcy-remote subsidiary on an ongoing basis and without recourse. The bankruptcy-remote subsidiary may then, at its option and subject to a borrowing base of eligible receivables, sell undivided interests in the pool of trade receivables to financial institutions participating in the facility. In the event of liquidation, the bankruptcy-remote subsidiary s assets will be used to satisfy the claims of its creditors prior to any assets or value in the bankruptcy-remote subsidiary becoming available to us. We are responsible for servicing the receivables. This facility also provides for the issuance of letters of credit up to $200 million. The term of the securitization facility may be extended in accordance with the terms of the agreement. The facility is also subject to customary covenants and warranties, including limits and reserves and the maintenance of specified financial ratios. We are required to maintain a leverage ratio at the end of every fiscal quarter of 3.50 to 1.00 or less for the period covering the most recent four quarters. Performance obligations under the facility are guaranteed by the parent company. Additional fees are incurred for the average daily unused commitments.

At June 30, 2017, there were no borrowings or letters of credit under the facility.

Other At June 30, 2017 and December 31, 2016, our weighted average interest rate on outstanding short-term debt was 1.3% and 0.9%, respectively.

Debt Discount and Issuance Costs

In the six months ended June 30, 2017 and 2016, amortization of debt discounts and debt issuance costs resulted in amortization expense of $12 million and $9 million, respectively, which is included in Interest expense in the Consolidated Statements of Income.

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6. Financial Instruments

Cash Concentration Our cash equivalents are placed in high-quality commercial paper, money market funds, marketable securities with maturities less than three months and time deposits with major international banks and financial institutions.

Market Risks We are exposed to market risks, such as changes in commodity pricing, currency exchange rates and interest rates. To manage the volatility related to these exposures, we selectively enter into derivative transactions pursuant to our risk management policies. Derivative instruments are recorded at fair value on the balance sheet. Gains and losses related to changes in the fair value of derivative instruments not designated as hedges are recorded in earnings. For derivatives that have been designated as fair value hedges, the gains and losses of the derivatives and hedged instruments are recorded in earnings. For derivatives designated as cash flow and net investment hedges, the effective portion of the gains and losses is recorded in Other comprehensive income (loss). The ineffective portion of cash flow and net investment hedges is recorded in earnings.

Marketable Securities We invest cash in investment-grade securities for periods generally not exceeding three years. Investments in securities with original maturities of three months or less are classified as Cash and cash equivalents. At June 30, 2017 and December 31, 2016, we had marketable securities classified as Cash and cash equivalents of $311 million and $351 million, respectively.

We also have investments in marketable securities classified as available-for-sale and held-to-maturity. These securities are included in Short-term investments on the Consolidated Balance Sheets. Investments classified as available-for-sale are carried at estimated fair value with unrealized gains and losses recorded as a component of Accumulated other comprehensive income (AOCI). Investments classified as held-to-maturity are carried at amortized cost. We periodically review our available-for-sale and held-to-maturity securities for other-than-temporary declines in fair value below the cost basis, and when events or changes in circumstances indicate the carrying value of an asset may not be recoverable, the investment is written down to fair value, establishing a new cost basis.

Repurchase Agreements We invest in tri-party repurchase agreements. Under these agreements, we make cash purchases of securities according to a pre-agreed profile from our counterparties. The counterparties have an obligation to repurchase, and we have an obligation to sell, the same or substantially the same securities at a pre-defined date for a price equal to the purchase price plus interest. These securities, which pursuant to our internal policies, are held by a third-party custodian and must generally have a minimum collateral value of 102%, secure the counterparty s obligation to repurchase the securities. Depending upon maturity, these tri-party repurchase agreements are treated as short-term loans receivable and are reflected in Prepaid expenses and other current assets or as long-term loans receivable reflected in Other investments and long-term receivables on our Consolidated Balance Sheets. The balance of our investment at June 30, 2017 and December 31, 2016 was $542 million and $369 million, respectively.

Commodity Prices We are exposed to commodity price volatility related to purchases of natural gas liquids, crude oil and other raw materials and sales of our products. We selectively use over-the counter commodity swaps, options and exchange traded futures contracts with various terms to manage the volatility related to these risks. In addition, we are exposed to volatility on the prices of precious metals to the extent that we have obligations, classified as embedded derivatives, tied to the price of precious metals associated with secured borrowings.

Foreign Currency Rates We have significant worldwide operations. The functional currencies of our consolidated subsidiaries through which we operate are primarily the U.S. dollar and the euro. We enter into transactions denominated in currencies other than our designated functional currencies. As a result, we are exposed to foreign currency risk on receivables and payables. We maintain risk management control policies intended to monitor

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

foreign currency risk attributable to our outstanding foreign currency balances. These control policies involve the centralization of foreign currency exposure management, the offsetting of exposures and the estimating of expected impacts of changes in foreign currency rates on our earnings. We enter into foreign currency forward contracts to reduce the effects of our net currency exchange exposures. At June 30, 2017, foreign currency forward contracts in the notional amount of $352 million, maturing from July 2017 to September 2017, were outstanding.

For forward contracts that economically hedge recognized monetary assets and liabilities in foreign currencies and that are not designated as net investment hedges, hedge accounting is not applied. Changes in the fair value of foreign currency forward contracts, which are reported in the Consolidated Statements of Income, are offset in part by the currency translation results recognized on the assets and liabilities.

Foreign Currency Gain (Loss) Other income (expense), net, in the Consolidated Statements of Income reflected losses of less than $1 million and $6 million for the three and six months ended June 30, 2017, respectively, and losses of $3 million and $6 million for the three and six months ended June 30, 2016, respectively.

Basis Swaps In February 2017, we entered into 617 million of basis swaps to reduce the volatility in stockholders equity resulting from changes in currency exchange rates of our foreign subsidiaries with respect to the U.S. dollar. We use the critical terms match to assess both the prospective and retrospective hedge effectiveness of these basis swaps by comparing the spot rate change in the euro notes and the spot rate change in the designated net investment.

We also have 400 million of basis swaps entered into in 2015 to reduce the volatility in stockholders equity resulting from changes in currency exchange rates of our foreign subsidiaries with respect to the U.S. dollar. We use the long-haul method to assess hedge effectiveness using a regression analysis approach under the hypothetical derivative method. We perform the regression analysis of these basis swap contracts at least on a quarterly basis over an observation period of three years, utilizing data that is relevant to the hedge duration.

The ineffectiveness related to these basis swaps is measured using the forward method.

Under the terms of these contracts, which have been designated as net investment hedges, we will make interest payments in euros at 3 Month EURIBOR plus applicable basis and will receive interest in U.S. dollars at 3 Month LIBOR plus applicable basis. Upon the maturities of these contracts, we will pay the principal amount in euros and receive U.S. dollars from our counterparties. The effective portion of the unrealized gains and losses on these basis swap contracts is reported within Foreign currency translation adjustments in Accumulated other comprehensive loss and reclassified to earnings only when realized upon the sale or upon complete or substantially complete liquidation of the investment in the foreign entity. Cash flows from basis swaps are reported in Cash flows from investing activities in the Consolidated Statement of Cash Flows.

There was no ineffectiveness recorded during the three and six months ended June 30, 2017 and 2016 related to these basis swaps.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the notional and fair value of our basis swaps outstanding:

	June 30, 2017		December 31, 2016	
Millions of dollars	Notional Value	Fair Value	Notional Value	Fair Value
Assets				
Basis swaps expiring in 2017	$	$	$ 305	$ 15
Basis swaps expiring in 2018			139	6
	$	$	$ 444	$ 21
Liabilities				
Basis swaps expiring in 2017	$ 305	$ 8	$	$
Basis swaps expiring in 2018	139	4		
Basis swaps expiring in 2027	650	66		
	$ 1,094	$ 78	$	$

Forward Exchange Contracts In October 2016, we entered into forward exchange contracts with an aggregate notional value of 275 million ($299 million) to mitigate the risk associated with the fluctuations in the Euro to U.S. Dollar exchange rate related to our investments in foreign subsidiaries. There was no ineffectiveness recorded during the three and six months ended June 30, 2017 related to these forward exchange contracts.

We use the critical terms match to assess both prospective and retrospective hedge effectiveness by comparing the spot rate change in the Euro notes and the spot rate change in the designated net investment. We use the hypothetical derivative method to measure hedge ineffectiveness.

In December 2015, we entered into forward exchange contracts with an aggregate notional value of 750 million ($795 million) to mitigate the risk associated with the fluctuations in the Euro to U.S. dollar exchange rate related to our investments in foreign subsidiaries.

We elected to designate these forward exchange contracts as net investment hedges. The effective portion of the gains or losses was recorded within foreign currency translation adjustments in Accumulated other comprehensive loss. In periods where the hedging relationship was deemed ineffective, changes in the fair value were recorded directly to Other income (expense), net in the Consolidated Statements of Income. Cash flows from these forward exchange contracts are reported in Cash flows from investing activities in the Consolidated Statement of Cash Flows.

On March 31, 2016, the forward exchange contracts entered into in December 2015 expired. Upon settlement of these contracts, we paid 750 million ($850 million at the expiry spot rate) to our counterparties and received $795 million from our counterparties. The $55 million difference, which includes a $30 million loss in the first quarter of 2016, is reflected within foreign currency translations adjustments in Accumulated other comprehensive loss. Cash flows from these forward exchange contracts are reported in Cash flows from investing activities in the Consolidated Statement of Cash Flows.

There was no ineffectiveness recorded for this hedging relationship during the three months ended March 31, 2016.

Guaranteed Euro Notes Due 2022 In March 2016, we issued euro denominated notes payable due 2022 (Euro notes) with notional amounts totaling 750 million. To mitigate the risk to our investments in foreign subsidiaries associated with fluctuations in the euro to U.S. dollar exchange rate, we designated these Euro notes as a net investment hedge.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We use the critical terms match to assess both prospective and retrospective hedge effectiveness by comparing the spot rate change in the Euro notes and the spot rate change in the designated net investment. We use the hypothetical derivative method to measure hedge ineffectiveness.

The effective portion of the gain or loss is recorded within foreign currency translation adjustments in Accumulated other comprehensive loss and will be reclassified to earnings only when realized upon the sale of or the complete or substantially complete liquidation of the investment in the foreign entity. In periods where the hedging relationship is deemed ineffective, changes in remeasurement of the Euro notes due to changes in the spot exchange rate will be recorded directly to Other income (expense), net in the Consolidated Statements of Income. Cash flows related to our Euro notes are reported in Cash flows from financing activities and related interest payments are reported in Cash flows from operating activities in the Consolidated Statement of Cash Flows.

There was no ineffectiveness recorded for this hedging relationship during the three and six months ended June 30, 2017 and 2016.

Cross-Currency Swaps We have cross-currency swap contracts that reduce our exposure to the foreign currency exchange risk associated with certain intercompany loans. Under the terms of these contracts, which have been designated as cash flow hedges, we make interest payments in euros and receive interest in U.S. dollars. Upon the maturities of these contracts, we will pay the principal amount of the loans in euros and receive U.S. dollars from our counterparties.

We use the long-haul method to assess hedge effectiveness using a regression analysis approach under the hypothetical derivative method. We perform the regression analysis over an observation period of three years, utilizing data that is relevant to the hedge duration. We use the dollar offset method under the hypothetical derivative method to measure ineffectiveness.

The effective portion of the unrealized gains and losses on these cross-currency swap contracts is reported in Accumulated other comprehensive loss and reclassified to earnings over the period that the hedged intercompany loans affect earnings based on changes in spot rates. The ineffective portion of the unrealized gains and losses is recorded directly to Other income (expense), net in the Consolidated Statements of Income. In addition, the swaps are marked-to-market each reporting period with the euro notional values measured based on the current foreign exchange spot rate.

There was no ineffectiveness recorded during the three and six months ended June 30, 2017 and 2016.

The following table summarizes our cross-currency swaps outstanding:

			June 30, 2017		December 31, 2016	
Millions of dollars, except expiration date and rates	**Expiration Date**	**Average Interest Rate**	**Notional Value**	**Fair Value**	**Notional Value**	**Fair Value**

Pay Euro	2021	4.55%	$ 1,000	$ 83	$ 1,000	$ 146
Receive U.S. dollars		6.00%				
Pay Euro	2024	4.37%	1,000	77	1,000	134
Receive U.S. dollars		5.75%				
Pay Euro	2027	3.69%	300	(11)	300	5
Receive U.S. dollars		5.49%				

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Forward-Starting Interest Rate Swaps In March 2015, we entered into forward-starting interest rate swaps to mitigate the risk of adverse changes in the benchmark interest rates on the anticipated refinancing of our senior notes due 2019. These interest rate swaps will be terminated upon debt issuance. The total notional amount of these forward-starting interest rate swaps was $1,000 million at June 30, 2017. The ineffectiveness recorded for this hedging relationship was losses of less than $1 million during each of the three months ended June 30, 2017 and 2016, respectively, and losses of $1 million during each of the six months ended June 30, 2017 and 2016, respectively.

We elected to designate these forward-starting interest rate swaps as cash flow hedges. The effective portion of the gain or loss is recorded in Accumulated other comprehensive loss. In periods where the hedging relationship is deemed ineffective, the ineffective portion of the changes in the fair value will be recorded as Interest expense in the Consolidated Statements of Income. The related deferred gains and losses recognized in Accumulated other comprehensive loss will be amortized to interest expense over the original term of the related swaps using the effective interest method.

We use a regression analysis approach under the hypothetical derivative method to assess both prospective and retrospective hedge effectiveness. We use the dollar-offset method under the hypothetical derivative method to measure hedge ineffectiveness.

There was no settlement of our forward-starting swap agreements during the three and six months ended June 30, 2017 and 2016.

As of June 30, 2017, less than $1 million (on a pretax basis) is scheduled to be reclassified as a decrease to interest expense over the next twelve months.

Commodity swaps designated as cash-flow hedges We have commodity swaps designated as cash-flow hedges to manage the volatility of the commodity price related to anticipated purchases of raw materials. We enter into over-the-counter commodity swaps with one or more counterparties whereby these commodity swaps require us to pay a predetermined fixed price and receive a price based on the average monthly forward rate of a specified index for the specified nominated volumes.

We use the long-haul method to assess hedge effectiveness using a regression analysis approach under the hypothetical derivative method. We perform the regression analysis monthly. We use the dollar offset method under the hypothetical derivative method to measure ineffectiveness.

The effective portion of the unrealized gains and losses on these commodity swaps designated as cash-flow hedges is reported in Accumulated other comprehensive loss and reclassified to earnings in the same period or periods that the hedged forecasted transaction affects earnings. The ineffective portion of the unrealized gains and losses is recorded directly to Other income (expense), net in the Consolidated Statements of Income. There was no ineffectiveness recorded during the three and six months ended June 30, 2017.

As of June 30, 2017, $4 million (on a pretax basis) is scheduled to be reclassified as a decrease to cost of sales over the next twelve months.

Fixed-for-Floating Interest Rate Swaps We use interest rate swaps as part of our current interest rate risk management strategy to achieve a desired proportion of variable versus fixed rate debt.

In 2017, we entered into U.S. dollar fixed-for-floating interest rate swaps with third party financial institutions to mitigate changes in the fair value of our $1,000 million 3.5% guaranteed notes due 2027 associated with the risk of variability in the 3 Month USD LIBOR rate (the benchmark interest rate).

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We also have U.S. dollar fixed-for-floating interest rate swaps with third party financial institutions to mitigate changes in the fair value of our $1,000 million 6% senior notes due 2021 associated with the risk of variability in the 1 Month USD LIBOR rate (the benchmark interest rate).

In 2014, we entered into U.S. dollar fixed-for-floating interest rate swaps with third party financial institutions to mitigate changes in the fair value of our $2,000 million 5% senior notes due 2019 associated with the risk of variability in the 3 Month USD LIBOR rate (the benchmark interest rate). In March 2017, concurrent with the redemption of $1,000 million of our outstanding 5% senior notes due 2019, we dedesignated the related $2,000 million fair value hedge and terminated swaps in the notional amount of $1,000 million. At the same time, we redesignated the remaining $1,000 million notional amount of swaps as a fair value hedge of the remaining $1,000 million of 5% senior notes outstanding. For information related to charges recognized as a result of the dedesignation of the hedging relationship, see Note 5.

Under these arrangements, we exchange fixed-rate for floating-rate interest payments to effectively convert our fixed-rate debt to floating rate-debt. The fixed and variable cash payments for the interest rate swaps related to our 5% senior notes due 2019 are net settled semi-annually. The fixed and variable payments for the interest rate swaps related to our 6% senior notes due 2021 are settled semi-annually and monthly, respectively. The fixed and variable payments for the interest rate swaps related to our guaranteed notes due 2027 are settled semi-annually and quarterly, respectively. These payments are classified as Other, net, in the Cash flows from operating activities section of the Consolidated Statements of Cash Flows.

We elected to designate these fixed-for-floating interest rate swaps as fair value hedges. We use the long-haul method to assess hedge effectiveness using a regression analysis approach. We perform the regression analysis over an observation period of three years, utilizing data that is relevant to the hedge duration. We use the dollar offset method to measure ineffectiveness.

Changes in the fair value of the derivatives and changes in the value of the hedged items based on changes in the benchmark interest rate are recorded as Interest expense in our Consolidated Statements of Income. We evaluate the effectiveness of the hedging relationship quarterly and calculate the changes in the fair value of the derivatives and the underlying hedged items separately. There was no ineffectiveness for these hedging relationships in the three months ended June 30, 2017. However, the ineffectiveness related to these hedging relationships resulted in a net loss of $7 million for the six months ended June 30, 2017 and net gains of $9 million and $18 million, respectively, for the three and six months ended June 30, 2016.

At June 30, 2017, we had outstanding interest rate swap agreements with notional amounts of $1,000 million, maturing on April 15, 2019, $1,000 million, maturing on November 15, 2021, and $1,000 million, maturing on March 2, 2027.

Investments in marketable securities The following table summarizes our investments in marketable securities:

Millions of dollars	**June 30, 2017**	**December 31, 2016**
Short-term investments:		
Available-for-sale securities, at fair value	$ 1,278	$ 1,073
Held-to-maturity securities, at cost		74
Total	$ 1,278	$ 1,147

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the amortized cost, gross unrealized gains and losses, and fair value of our available-for-sale and held-to maturity securities that are outstanding as of June 30, 2017 and December 31, 2016. Refer to Note 7 for additional information regarding the fair value of available-for-sale and held-to maturity securities.

	June 30, 2017			
Millions of dollars	**Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
Available-for-sale securities:				
Commercial paper	$ 171	$	$	$ 171
Bonds	613		(2)	611
Certificates of deposit	150	1		151
Time deposits	1			1
Limited partnership investments	350	1	(7)	344
Total available-for-sale securities	$ 1,285	$ 2	$ (9)	$ 1,278
Held-to-maturity securities:				
Time deposits	$	$	$	$

	December 31, 2016			
Millions of dollars	**Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Fair Value**
Available-for-sale securities:				
Commercial paper	$ 232	$	$	$ 232
Bonds	141			141
Certificates of deposit	347	1		348
Limited partnership investments	350	2		352
Total available-for-sale securities	$ 1,070	$ 3	$	$ 1,073
Held-to-maturity securities:				
Time deposits	$ 74	$	$	$ 74

Our limited partnership investments include investments in, among other things, equities and equity related securities, debt securities, credit instruments, global interest rate products, currencies, commodities, futures, options, warrants and swaps. These investments, which include both long and short positions, may be redeemed at least monthly with advance notice ranging up to ninety days. The fair value of these funds is estimated using the net asset value (NAV) per share of the respective pooled fund investment.

No losses related to other-than-temporary impairments of our available-for-sale and held-to-maturity investments have been recorded in Accumulated other comprehensive loss during the three and six months ended June 30, 2017 and the year ended December 31, 2016.

As of June 30, 2017, our available-for-sale securities had the following maturities: commercial paper securities held by the Company had maturities between eight and nine months; bonds had maturities between three and forty months; certificates of deposit mature within nine months; and limited partnership investments mature between one and three months.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The proceeds from maturities and sales of our available-for-sale securities during the three and six months ended June 30, 2017 and 2016 are summarized in the following table:

	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
Proceeds from maturities of securities	$ 149	$ 417	$ 487	$ 657
Proceeds from sales of securities				

No gain or loss was realized in connection with the sales of our available-for-sale securities during the three and six months ended June 30, 2017 and 2016. The specific identification method was used to identify the cost of the securities sold and the amounts reclassified out of Accumulated other comprehensive loss into earnings.

During the three and six months ended June 30, 2017, we had maturities of our held-to-maturity securities totaling $31 million and $75 million. We had no sales of our held-to-maturity securities and we had no transfers of investments classified as held-to-maturity to available-for-sale.

The following table summarizes the fair value and unrealized losses related to available-for-sale and held-to-maturity securities that were in a continuous unrealized loss position for less than and greater than twelve months as of June 30, 2017 and December 31, 2016:

	June 30, 2017			
	Less than 12 months		Greater than 12 months	
Millions of dollars	**Fair Value**	**Unrealized Loss**	**Fair Value**	**Unrealized Loss**
Available-for-sale securities:				
Bonds	$ 516	$ (2)	$	$
Limited partnership investments	122	(5)	105	(2)

	December 31, 2016			
	Less than 12 months		Greater than 12 months	
Millions of dollars	**Fair Value**	**Unrealized Loss**	**Fair Value**	**Unrealized Loss**
Available-for-sale securities:				
Limited partnership investments	$	$	$ 105	$ (3)

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Financial Instruments The following table summarizes financial instruments outstanding as of June 30, 2017 and December 31, 2016 that are measured at fair value on a recurring basis. Refer to Note 7 for additional information regarding the fair value of financial instruments.

Millions of dollars	Balance Sheet Classification	June 30, 2017 Notional Amount	June 30, 2017 Fair Value	December 31, 2016 Notional Amount	December 31, 2016 Fair Value
Assets					
Derivatives designated as net investment hedges:					
Basis swaps	Prepaid expenses and other current assets	$	$	$ 305	$ 15
Basis swaps	Other assets			139	6
Forward exchange contracts	Prepaid expenses and other current assets			299	10
Derivatives designated as cash flow hedges:					
Cross-currency swaps	Other assets	2,000	154	2,300	276
Cross-currency swaps	Prepaid expenses and other current assets		8		9
Commodity swaps	Other assets	2		54	3
Commodity swaps	Prepaid expenses and other current assets	25		4	
Forward-starting interest rate swaps	Other assets			200	1
Derivatives designated as fair value hedges:					
Fixed-for-floating interest rate swaps	Other assets	2,200	12	2,000	10
Fixed-for-floating interest rate swaps	Prepaid expenses and other current assets		16		5
Derivatives not designated as hedges:					
Commodities	Prepaid expenses and other current assets	21	1	68	2
Embedded derivatives	Prepaid expenses and other current assets			17	1
Foreign currency	Prepaid expenses and other current assets	159		11	
Non-derivatives:					
Available-for-sale securities	Short-term investments	1,285	1,278	1,069	1,073
		$ 5,692	$ 1,469	$ 6,466	$ 1,411

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Millions of dollars	Balance Sheet Classification	June 30, 2017 Notional Amount	June 30, 2017 Fair Value	December 31, 2016 Notional Amount	December 31, 2016 Fair Value
Liabilities					
Derivatives designated as net investment hedges:					
Basis swaps	Accrued liabilities	$ 305	$ 8	$	$
Basis swaps	Other liabilities	789	70		
Forward exchange contracts	Accrued liabilities	299	11		
Derivatives designated as cash flow hedges:					
Cross-currency swaps	Other liabilities	300	13		
Forward-starting interest rate swaps	Other liabilities	1,000	32	800	16
Commodities	Accrued liabilities	51	4		
Commodities	Other liabilities	26			
Derivatives designated as fair value hedges:					
Fixed-for-floating interest rate swaps	Other liabilities	800	4	600	4
Derivatives not designated as hedges:					
Commodities	Accrued liabilities	154	9	30	1
Embedded derivatives	Accrued liabilities	60	3	73	10
Foreign currency	Accrued liabilities	193		28	1
Non-derivatives:					
Performance share awards	Accrued liabilities	14	14	19	19
Performance share awards	Other liabilities	16	16	22	22
		$ 4,007	$ 184	$ 1,572	$ 73

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table summarizes the pretax effect of derivative instruments and non-derivative instruments designated as net investment hedges charged directly to income:

	Effect of Financial Instruments Three Months Ended June 30, 2017			
Millions of dollars	**Gain (Loss) Recognized in AOCI**	**Gain (Loss) Reclassified from AOCI to Income**	**Additional Gain (Loss) Recognized in Income**	**Income Statement Classification**
Derivatives designated as net investment hedges:				
Basis swaps	$ (72)	$	$	Other income (expense), net
Forward exchange contracts	(19)			Other income (expense), net
Derivatives designated as cash-flow hedges:				
Cross-currency swaps	(128)	133		Other income (expense), net
Forward-starting interest rate swaps	(24)			Interest expense
Commodities	(6)			Cost of sales
Derivatives designated as fair value hedges:				
Fixed-for-floating interest rate swaps			19	Interest expense
Derivatives not designated as hedges:				
Commodities			(2)	Sales and other operating revenues
Commodities			(7)	Cost of sales
Non-derivatives designated as net investment hedges:				
Euro notes payable	(54)			Other income (expense), net
	$ (303)	$ 133	$ 10	

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Effect of Financial Instruments Three Months Ended June 30, 2016			
Millions of dollars	**Gain (Loss) Recognized in AOCI**	**Gain (Loss) Reclassified from AOCI to Income**	**Additional Gain (Loss) Recognized in Income**	**Income Statement Classification**
Derivatives designated as net investment hedges:				
Basis swaps	$ 23	$	$	Other income (expense), net
Derivatives designated as cash-flow hedges:				
Cross-currency swaps	71	(43)		Other income (expense), net
Forward-starting interest rate swaps	(66)			Interest expense
Derivatives designated as fair value hedges:				
Fixed-for-floating interest rate swaps			11	Interest expense
Derivatives not designated as hedges:				
Commodities			11	Sales and other operating revenues
Commodities			(8)	Cost of sales
Embedded derivatives			(12)	Cost of sales
Foreign currency			(7)	Other income (expense), net
Non-derivatives designated as net investment hedges:				
Euro notes payable	18			Other income (expense), net
	$ 46	$ (43)	$ (5)	

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Effect of Financial Instruments Six Months Ended June 30, 2017			
Millions of dollars	**Gain (Loss) Recognized in AOCI**	**Gain (Loss) Reclassified from AOCI to Income**	**Additional Gain (Loss) Recognized in Income**	**Income Statement Classification**
Derivatives designated as net investment hedges:				
Basis swaps	$ (93)	$	$	Other income (expense), net
Forward exchange contracts	(21)			Other income (expense), net
Derivatives designated as cash-flow hedges:				
Cross-currency swaps	(135)	158		Other income (expense), net
Forward-starting interest rate swaps	(17)			Interest expense
Commodities	(8)			Cost of sales
Derivatives designated as fair value hedges:				
Fixed-for-floating interest rate swaps			18	Interest expense
Derivatives not designated as hedges:				
Commodities			(3)	Sales and other operating revenues
Commodities			(6)	Cost of sales
Embedded derivatives			(31)	Cost of sales
Foreign currency			(1)	Other income (expense), net
Non-derivatives designated as net investment hedges:				
Euro notes payable	(64)			Other income (expense), net
	$ (338)	$ 158	$ (23)	

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Effect of Financial Instruments Six Months Ended June 30, 2016			
Millions of dollars	Gain (Loss) Recognized in AOCI	Gain (Loss) Reclassified from AOCI to Income	Additional Gain (Loss) Recognized in Income	Income Statement Classification
Derivatives designated as net investment hedges:				
Basis swaps	$ (17)	$	$	Other income (expense), net
Forward exchange contracts	(30)			Other income (expense), net
Derivatives designated as cash-flow hedges:				
Cross-currency swaps	(35)	47		Other income (expense), net
Forward-starting interest rate swaps	(154)		(1)	Interest expense
Derivatives designated as fair value hedges:				
Fixed-for-floating interest rate swaps			44	Interest expense
Derivatives not designated as hedges:				
Commodities			10	Sales and other operating revenues
Commodities			(2)	Cost of sales
Embedded derivatives			(20)	Cost of sales
Foreign currency			12	Other income (expense), net
Non-derivatives designated as net investment hedges:				
Euro notes payable	14			Other income (expense), net
	$ (222)	$ 47	$ 43	

The pretax effect of the gains (losses) recognized in income for our fixed-for-floating interest rate swaps includes the net value of interest accrued of $6 million and $13 million during the three and six months ended June 30, 2017 and $5 million and $11 million for the three and six months ended 2016, respectively.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. Fair Value Measurement

The following table presents the financial instruments outstanding as of June 30, 2017 and December 31, 2016 that are measured at fair value on a recurring basis.

	June 30, 2017			
Millions of dollars	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Assets				
Derivatives:				
Cross-currency swaps	$ 162	$	$ 162	$
Fixed-for-floating interest rate swaps	28		28	
Commodities	1	1		
Non-derivatives:				
Available-for-sale securities	934		934	
Available-for-sale securities measured at net asset value*	344			
	$ 1,469	$ 1	$ 1,124	$
Liabilities				
Derivatives:				
Basis swaps	$ 78	$	$ 78	$
Forward exchange contracts	11		11	
Cross-currency swaps	13		13	
Forward-starting interest rate swaps	32		32	
Fixed-for-floating interest rate swaps	4		4	
Commodities	13	9	4	
Embedded derivatives	3		3	
Non-derivatives:				
Performance share awards	30	30		
	$ 184	$ 39	$ 145	$

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	December 31, 2016			
Millions of dollars	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Assets				
Derivatives:				
Basis swaps	$ 21	$	$ 21	$
Cross-currency swaps	285		285	
Forward exchange contracts	10		10	
Forward-starting interest rate swaps	1		1	
Fixed-for-floating interest rate swaps	15		15	
Commodities	5	2	3	
Embedded derivatives	1		1	
Non-derivatives:				
Available-for-sale securities	738		738	
Available-for-sale securities measured at net asset value*	335			
	$ 1,411	$ 2	$ 1,074	$
Liabilities				
Derivatives:				
Forward-starting interest rate swaps	$ 16	$	$ 16	$
Fixed-for-floating interest rate swaps	4		4	
Commodities	1	1		
Embedded derivatives	10		10	
Foreign currency	1		1	
Non-derivatives:				
Performance share awards	41	41		
	$ 73	$ 42	$ 31	$

* In accordance with Fair Measurement Topic 820, Subtopic 10, certain investments measured at fair value using the net asset value per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The amounts presented in this table are intended to facilitate reconciliation to the Consolidated Balance Sheets.

The fair value of the commodities assets classified as Level 2 is associated with our commodity swaps designated as cash-flow hedges. The fair values of the commodities assets and liabilities classified as Level 1 are associated with our commodity derivatives not designated as hedges.

There were no transfers between Level 1 and Level 2 during the six months ended June 30, 2017 and the year ended December 31, 2016.

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The following table presents the carrying value and estimated fair value of our financial instruments that are not measured at fair value on a recurring basis as of June 30, 2017 and December 31, 2016. Short-term loans receivable, which represent our repurchase agreements, and short-term and long-term debt, are recorded at amortized cost in the Consolidated Balance Sheets. The carrying and fair values of short-term and long-term debt exclude capital leases.

	June 30, 2017				
Millions of dollars	**Carrying Value**	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Non-derivatives:					
Assets:					
Short-term loans receivable	$ 542	$ 542	$	$ 542	$
Liabilities:					
Short-term debt	$ 59	$ 42	$	$ 42	$
Long-term debt	8,494	9,314		9,313	1
Total	$ 8,553	$ 9,356	$	$ 9,355	$ 1

	December 31, 2016				
Millions of dollars	**Carrying Value**	**Fair Value**	**Level 1**	**Level 2**	**Level 3**
Non-derivatives:					
Assets:					
Short-term loans receivable	$ 369	$ 369	$	$ 369	$
Liabilities:					
Short-term debt	$ 90	$ 98	$	$ 98	$
Long-term debt	8,382	9,147		9,146	1
Total	$ 8,472	$ 9,245	$	$ 9,244	$ 1

The fair value of all non-derivative financial instruments included in Current assets described below, Current liabilities, including Short-term debt excluding precious metal financings, and Accounts payable, approximates the applicable carrying value due to the short maturity of those instruments. Current assets include Cash and cash equivalents, Restricted cash, held-to-maturity time deposits and Accounts receivable.

We use the following inputs and valuation techniques to estimate the fair value of our financial instruments:

Basis Swaps The fair value of our basis swap contracts is calculated using the present value of future cash flows discounted using observable inputs such as known notional value amounts, yield curves, and spot and forward exchange rates.

Cross-Currency Swaps The fair value of our cross-currency swaps is calculated using the present value of future cash flows discounted using observable inputs with the foreign currency leg revalued using published spot and future exchange rates on the valuation date.

Forward-Starting Interest Rate Swaps The fair value of our forward-starting interest rate swaps is calculated using the present value of future cash flows method and based on observable inputs such as benchmark interest rates.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Fixed-for-Floating Interest Rate Swaps The fair value of our fixed-for-floating interest rate swaps is calculated using the present value of future cash flows method and based on observable inputs such as interest rates and market yield curves.

Commodity and Embedded Derivatives The fair values of our commodity derivatives classified as Level 1 and embedded derivatives are measured using closing market prices at the end of the reporting period obtained from the New York Mercantile Exchange and from third-party broker quotes and pricing providers.

The fair value of our commodity swaps classified as Level 2 is determined using a combination of observable and unobservable inputs. The observable inputs consist of future market values of various crude and heavy fuel oils, which are readily available through public data sources. The unobservable input, which is the estimated discount or premium used in the market pricing, is calculated using an internally-developed, multi-linear regression model based on the observable prices of the known components and their relationships to historical prices. A significant change in this unobservable input would not have a material impact on the fair value measurement of our level 2 commodity swaps.

Foreign Currency Derivatives and Forward Exchange Contracts The fair value of our foreign currency derivatives is based on forward market rates.

Available-for-Sale Securities Fair value is calculated using observable market data for similar securities and broker quotes from recognized purveyors of market data or the net asset value for limited partnership investments provided by the fund administrator.

Performance Share Awards Fair value is determined using the quoted market price of our stock.

Short-Term and Long-Term Loans Receivable Valuations are based on discounted cash flows, which consider prevailing market rates for the respective instrument maturity in addition to corroborative support from the minimum underlying collateral requirements.

Short-Term Debt Fair values of short-term borrowings related to precious metal financing arrangements are determined based on the current market price of the associated precious metal.

Long-Term Debt Fair value is calculated using pricing data obtained from well-established and recognized vendors of market data for debt valuations.

8. Pension and Other Postretirement Benefits

Net periodic pension benefits included the following cost components for the periods presented:

U.S. Plans

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Service cost	$ 12	$ 11	$ 24	$ 22
Interest cost	15	22	30	44
Expected return on plan assets	(31)	(35)	(61)	(70)
Actuarial and investment loss amortization	6	5	11	10
Net periodic benefit costs	$ 2	$ 3	$ 4	$ 6

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Non-U.S. Plans			
	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
Service cost	$ 10	$ 8	$ 19	$ 16
Interest cost	6	8	11	16
Expected return on plan assets	(5)	(6)	(9)	(12)
Actuarial and investment loss amortization	3	2	7	4
Net periodic benefit costs	$ 14	$ 12	$ 28	$ 24

Net periodic other postretirement benefits included the following cost components for the periods presented:

	U.S. Plans			
	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
Service cost	$ 1	$ 1	$ 2	$ 2
Interest cost	2	3	4	6
Net periodic benefit costs	$ 3	$ 4	$ 6	$ 8

	Non-U.S. Plans			
	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
Service cost	$	$	$ 1	$ 1
Interest cost	1	1	1	1
Actuarial loss amortization			1	1
Net periodic benefit costs	$ 1	$ 1	$ 3	$ 3

9. Income Taxes

Our effective income tax rate for the three months ended June 30, 2017 was 28.8% compared with 24.1% for the three months ended June 30, 2016. For the six months ended June 30, 2017, the effective income tax rate was 28.5% compared with 26.8% for the first six months ended June 30, 2016. Our effective income tax rate fluctuates based on, among other factors, changes in pretax income in countries with varying statutory tax rates, the U.S. domestic production activity deduction, changes in valuation allowances, changes in foreign exchange gains/losses, the amount of exempt income, and changes in unrecognized tax benefits associated with uncertain tax positions.

Compared with the second quarter of 2016, the higher effective tax rate for the second quarter of 2017 was primarily attributable to the prior year impact of a change in non-U.S. tax law on our deferred tax liabilities, a decrease in exempt income, changes in pretax income in countries with varying statutory tax rates, and changes in valuation allowances, partially offset by the impact of prior year adjustments to our deferred tax liabilities. Compared with the first six months of 2016, the higher effective tax rate for the first six months of 2017 was primarily attributable to the prior year impact of a change in non-U.S. tax law on our deferred tax liabilities, changes in valuation allowances, a decrease in exempt income, changes in pretax income in countries with varying statutory tax rates, partially offset by the impact of prior year adjustments to our deferred tax liabilities and a reduction in foreign exchange gains.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We monitor income tax developments (including, for example, the U.S. tax reform proposals and the European Union s state aid investigations) in countries where we conduct business. In October 2016, the U.S. Treasury issued final Section 385 debt-equity regulations that may impact our internal financings; however, these regulations are currently under review by the Treasury Department pursuant to an Executive Order. Recently, there has been an increase in attention, both in the U.K. and globally, to the tax practices of multinational companies, including proposals by the Organization for Economic Cooperation and Development with respect to base erosion and profit shifting. Such attention may result in legislative changes that could affect our tax rate. Management does not believe that recent changes in income tax laws will have a material impact on our Consolidated Financial Statements, although new or proposed changes to tax laws could affect our tax liabilities in the future.

10. Commitments and Contingencies

Financial Assurance Instruments We have obtained letters of credit, performance and surety bonds and have issued financial and performance guarantees to support trade payables, potential liabilities and other obligations. Considering the frequency of claims made against the financial instruments we use to support our obligations, and the magnitude of those financial instruments in light of our current financial position, management does not expect that any claims against or draws on these instruments would have a material adverse effect on our Consolidated Financial Statements. We have not experienced any unmanageable difficulty in obtaining the required financial assurance instruments for our current operations.

Environmental Remediation Our accrued liability for future environmental remediation costs at current and former plant sites and other remediation sites totaled $99 million and $95 million as of June 30, 2017 and December 31, 2016, respectively. At June 30, 2017, the accrued liabilities for individual sites range from less than $1 million to $16 million. The remediation expenditures are expected to occur over a number of years, and not to be concentrated in any single year. In our opinion, it is reasonably possible that losses in excess of the liabilities recorded may have been incurred. However, we cannot estimate any amount or range of such possible additional losses. New information about sites, new technology or future developments such as involvement in investigations by regulatory agencies, could require us to reassess our potential exposure related to environmental matters.

The following table summarizes the activity in our accrued environmental liability included in Accrued liabilities and Other liabilities:

	Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**
Beginning balance	$ 95	$ 106
Changes in estimates	3	10
Amounts paid	(4)	(8)
Foreign exchange effects	5	2

Ending balance	$ 99	$ 110

Access Indemnity Demand In December 2010, one of our subsidiaries received demand letters from affiliates of Access Industries (collectively, Access Entities), a more than five percent shareholder of the Company, demanding indemnity for losses, including attorney s fees and expenses, arising out of a pending lawsuit styled *Edward S. Weisfelner, as Litigation Trustee of the LB Litigation Trust v. Leonard Blavatnik, et al.,* Adversary

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Proceeding No. 09-1375 (REG), in the United States Bankruptcy Court, Southern District of New York. In the *Weisfelner* lawsuit, the plaintiffs seek to recover from Access the return of all amounts earned by the Access Entities related to their purchase of shares of Lyondell Chemical prior to its acquisition by Basell AF S.C.A.; distributions by Basell AF S.C.A. to its shareholders before it acquired Lyondell Chemical; and management and transaction fees and expenses. Trial of the lawsuit was held in October 2016. In April 2017, the court awarded $7.2 million to the plaintiffs and denied all other relief, and in May 2017 the court issued its Final Judgment reflecting this ruling. With prejudgment interest included, the total Final Judgment is $12.6 million. In May 2017 Plaintiffs filed an appeal of this Final Judgment to the Federal District Court for the Southern District of New York. That appeal remains pending.

The Access Entities have also demanded $100 million in management fees under a 2007 management agreement between an Access affiliate and the predecessor of LyondellBasell AF, as well as other unspecified amounts relating to advice purportedly given in connection with financing and other strategic transactions. In June 2009, an Access affiliate filed a proof of claim in Bankruptcy Court against LyondellBasell AF seeking no less than $723 thousand for amounts allegedly owed under the 2007 management agreement. In April 2011, Lyondell Chemical filed an objection to the claim and brought a declaratory judgment action for a determination that the demands are not valid. The declaratory judgment action is stayed pending the outcome of the *Weisfelner* lawsuit.

We do not believe that the 2007 management agreement is in effect or that the Company or any Company-affiliated entity owes any obligations under the management agreement, including for management fees or for indemnification. We intend to vigorously defend our position in any proceedings and against any claims or demands that may be asserted.

Although the court issued its Final Judgment in *Weisfelner* in May 2017 as noted above, it remains on appeal and subject to further potential appeal by the parties. Accordingly, we cannot at this time estimate the reasonably possible loss or range of loss that may be incurred.

409A Matter Certain of the Company s current and former executives were being audited by the Internal Revenue Service for the 2012 tax year regarding the treatment of their Company stock options under Section 409A of the Internal Revenue Code. In early 2017, the audits were settled and the Company has incurred an aggregate of $1.7 million for all liabilities relating to the 2012 tax year. The Company believes that any additional future liability that may arise related to this issue will not be material.

Indemnification We are parties to various indemnification arrangements, including arrangements entered into in connection with acquisitions, divestitures and the formation and dissolution of joint ventures. Pursuant to these arrangements, we provide indemnification to and/or receive indemnification from other parties in connection with liabilities that may arise in connection with the transactions and in connection with activities prior to completion of the transactions. These indemnification arrangements typically include provisions pertaining to third party claims relating to environmental and tax matters and various types of litigation. As of June 30, 2017, we had not accrued any significant amounts for our indemnification obligations, and we are not aware of other circumstances that would likely lead to significant future indemnification obligations. We cannot determine with certainty the potential amount of future payments under the indemnification arrangements until events arise that would trigger a liability under the arrangements.

As part of our technology licensing contracts, we give indemnifications to our licensees for liabilities arising from possible patent infringement claims with respect to certain proprietary licensed technologies. Such indemnifications have a stated maximum amount and generally cover a period of five to ten years.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Stockholders Equity

Dividend distributions The following table summarizes the dividends paid in the periods presented:

Millions of dollars, except per share amounts	Dividend Per Ordinary Share	Aggregate Dividends Paid	Date of Record
March	$ 0.85	$ 343	March 6, 2017
June	0.90	361	June 5, 2017
	$ 1.75	$ 704	

Share Repurchase Programs In May 2017, our shareholders approved a proposal to authorize us to repurchase up to an additional 10% of our outstanding ordinary shares through November 2018 (May 2017 Share Repurchase Program). As a result, the authorization of the remaining unpurchased shares under the share repurchase program approved by our shareholders in May 2016 (May 2016 Share Repurchase Program) was superseded.

These repurchases, which are determined at the discretion of our Management Board, may be executed from time to time through open market or privately negotiated transactions. The repurchased shares, which are recorded at cost, are recorded as Treasury stock and may be retired or used for general corporate purposes, including for various employee benefit and compensation plans.

The following table summarizes our share repurchase activity for the periods presented:

	Six Months Ended June 30, 2017		
Millions of dollars, except shares and per share amounts	Shares Repurchased	Average Purchase Price	Total Purchase Price, Including Commissions
May 2016 Share Repurchase Program	3,501,084	$ 85.71	$ 300
May 2017 Share Repurchase Program	3,450,559	80.89	279
	6,951,643	$ 83.32	$ 579

	Six Months Ended June 30, 2016		
Millions of dollars, except shares and per share amounts	Shares Repurchased	Average Purchase Price	Total Purchase Price,

				Including Commissions
May 2015 Share Repurchase Program	15,302,707	$ 80.15	$	1,226
May 2016 Share Repurchase Program	5,837,691	79.21		463
	21,140,398	$ 79.89	$	1,689

Due to the timing of settlements, total cash paid for share repurchases for the six months ended June 30, 2017 and 2016 was $570 million and $1,682 million, respectively.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Ordinary Shares The changes in the outstanding amounts of ordinary shares are as follows:

	Six Months Ended June 30, 2017	2016
Ordinary shares outstanding:		
Beginning balance	404,046,331	440,150,069
Share-based compensation	304,566	325,997
Warrants exercised	4,184	
Employee stock purchase plan	53,953	45,898
Purchase of ordinary shares	(6,951,643)	(21,140,398)
Ending balance	397,457,391	419,381,566

Treasury Shares The changes in the amounts of treasury shares held by the Company are as follows:

	Six Months Ended June 30, 2017	2016
Ordinary shares held as treasury shares:		
Beginning balance	174,389,139	138,285,201
Share-based compensation	(304,566)	(325,997)
Warrants exercised	509	
Employee stock purchase plan	(53,953)	(45,898)
Purchase of ordinary shares	6,951,643	21,140,398
Ending balance	180,982,772	159,053,704

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Accumulated Other Comprehensive Income (Loss) The components of, and after-tax changes in, Accumulated other comprehensive income (loss) as of and for the six months ended June 30, 2017 and 2016 are presented in the following table:

Millions of dollars	Financial Derivatives	Net Unrealized Holding Gains (Losses) on Investments	Net Unrealized Holding Gains (Losses) Attributable to Equity Investees	Defined Pension and Other Postretirement Benefit Plans	Foreign Currency Translation Adjustments	Total
Balance January 1, 2017	$ (75)	$ 1	$	$ (498)	$ (939)	$ (1,511)
Other comprehensive income (loss) before reclassifications	(110)	(7)	9		120	12
Amounts reclassified from accumulated other comprehensive loss	111			13		124
Net other comprehensive income (loss)	1	(7)	9	13	120	136
Balance June 30, 2017	$ (74)	$ (6)	$ 9	$ (485)	$ (819)	$ (1,375)
Balance January 1, 2016	$ (79)	$ (5)	$	$ (428)	$ (926)	$ (1,438)
Other comprehensive income (loss) before reclassifications	(148)	(6)			63	(91)
Amounts reclassified from accumulated other comprehensive loss	47			10		57
Net other comprehensive income (loss)	(101)	(6)		10	63	(34)
Balance June 30, 2016	$ (180)	$ (11)	$	$ (418)	$ (863)	$ (1,472)

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The amounts reclassified out of each component of Accumulated other comprehensive loss are as follows:

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016	Affected line item on the Consolidated Statements of Income
Reclassification adjustments for:					
Financial derivatives	$ 133	$ (43)	$ 158	$ 47	Other income (expense), net
Defined pension and other postretirement benefit plan items:					
Amortization of:					
Actuarial loss	9	7	19	15	
Reclassifications, before tax	142	(36)	177	62	
Income tax expense	43	2	53	5	Provision for income taxes
Amounts reclassified out of Accumulated other comprehensive income (loss)	$ 99	$ (38)	$ 124	$ 57	

Amortization of actuarial loss is included in the computation of net periodic pension and other postretirement benefit costs (see Note 8).

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. Per Share Data

Basic earnings per share is based upon the weighted average number of shares of common stock outstanding during the periods. Diluted earnings per share includes the effect of certain stock option awards and other equity-based compensation awards. We have unvested restricted stock units that are considered participating securities for earnings per share.

Earnings per share data and dividends declared per share of common stock are as follows:

	Three Months Ended June 30,			
	2017		2016	
Millions of dollars	**Continuing Operations**	**Discontinued Operations**	**Continuing Operations**	**Discontinued Operations**
Net income (loss)	$ 1,134	$ (4)	$ 1,092	$ (1)
Less: net loss attributable to non-controlling interests	1			
Net income (loss) attributable to the Company shareholders	1,135	(4)	1,092	(1)
Net income attributable to participating securities	(1)		(1)	
Net income (loss) attributable to ordinary shareholders basic and diluted	$ 1,134	$ (4)	$ 1,091	$ (1)
Millions of shares, except per share amounts				
Basic weighted average common stock outstanding	401	401	424	424
Effect of dilutive securities:				
PSU awards	1	1	1	1
Potential dilutive shares	402	402	425	425
Earnings (loss) per share:				
Basic	$ 2.83	$ (0.01)	$ 2.57	$
Diluted	$ 2.82	$ (0.01)	$ 2.56	$
Millions of shares				
Participating securities	0.4	0.4	0.4	0.4
Dividends declared per share of common stock	$ 0.90	$	$ 0.85	$

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Six Months Ended June 30,			
	2017		2016	
Millions of dollars	**Continuing Operations**	**Discontinued Operations**	**Continuing Operations**	**Discontinued Operations**
Net income (loss)	$ 1,939	$ (12)	$ 2,122	$ (1)
Less: net loss attributable to non-controlling interests	1			
Net income (loss) attributable to the Company shareholders	1,940	(12)	2,122	(1)
Net income attributable to participating securities	(2)		(2)	
Net income (loss) attributable to ordinary shareholders basic and diluted	$ 1,938	$ (12)	$ 2,120	$ (1)
Millions of shares, except per share amounts				
Basic weighted average common stock outstanding	402	402	428	428
Effect of dilutive securities:				
PSU awards	1	1	1	1
Potential dilutive shares	403	403	429	429
Earnings (loss) per share:				
Basic	$ 4.82	$ (0.03)	$ 4.94	$
Diluted	$ 4.81	$ (0.03)	$ 4.93	$
Millions of shares				
Participating securities	0.4	0.4	0.4	0.4
Dividends declared per share of common stock	$ 1.75	$	$ 1.63	$

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Segment and Related Information

Our operations are managed through five operating segments, as shown below. We disclose the results of each of our operating segments in accordance with ASC 280, *Segment Reporting*. Each of our operating segments is managed by a senior executive reporting directly to our Chief Executive Officer, the chief operating decision maker. Discrete financial information is available for each of the segments, and our Chief Executive Officer uses the operating results of each of the operating segments for performance evaluation and resource allocation. The activities of each of our segments from which they earn revenues and incur expenses are described below:

Olefins and Polyolefins Americas (O&P Americas). Our O&P Americas segment produces and markets olefins and co-products, polyethylene and polypropylene.

Olefins and Polyolefins Europe, Asia, International (O&P EAI). Our O&P EAI segment produces and markets olefins and co-products, polyethylene, and polypropylene, including polypropylene compounds.

Intermediates and Derivatives (I&D). Our I&D segment produces and markets propylene oxide and its co-products and derivatives, oxyfuels and related products and intermediate chemicals such as styrene monomer, acetyls, ethylene oxide and ethylene glycol.

Refining. Our Refining segment refines heavy, high-sulfur crude oils and other crude oils of varied types and sources available on the U.S. Gulf Coast into refined products, including gasoline and distillates.

Technology. Our Technology segment develops and licenses chemical and polyolefin process technologies and manufactures and sells polyolefin catalysts.

Our chief operating decision maker uses EBITDA as the primary measure for reviewing our segments profitability and therefore, in accordance with ASC 280, *Segment Reporting*, we have presented EBITDA for all segments. We define EBITDA as earnings before interest, taxes and depreciation and amortization.

Intersegment eliminations and items that are not directly related or allocated to business operations are included in Other. Sales between segments are made primarily at prices approximating prevailing market prices.

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LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Summarized financial information concerning reportable segments is shown in the following table for the periods presented:

	Three Months Ended June 30, 2017						
Millions of dollars	**O&P Americas**	**O&P EAI**	**I&D**	**Refining**	**Technology**	**Other**	**Total**
Sales and other operating revenues:							
Customers	$ 1,815	$ 2,966	$ 1,978	$ 1,565	$ 79	$	$ 8,403
Intersegment	732	42	36	148	28	(986)	
	2,547	3,008	2,014	1,713	107	(986)	8,403
Income from equity investments	11	67					78
EBITDA	859	699	339	25	48		1,970

	Three Months Ended June 30, 2016						
Millions of dollars	**O&P Americas**	**O&P EAI**	**I&D**	**Refining**	**Technology**	**Other**	**Total**
Sales and other operating revenues:							
Customers	$ 1,643	$ 2,675	$ 1,741	$ 1,166	$ 102	$ 1	$ 7,328
Intersegment	568	46	28	123	27	(792)	
	2,211	2,721	1,769	1,289	129	(791)	7,328
Income from equity investments	20	96	1				117
EBITDA	754	576	397	(13)	73	(4)	1,783

	Six Months Ended June 30, 2017						
Millions of dollars	**O&P Americas**	**O&P EAI**	**I&D**	**Refining**	**Technology**	**Other**	**Total**
Sales and other operating revenues:							
Customers	$ 3,814	$ 5,933	$ 4,099	$ 2,815	$ 172	$	$ 16,833
Intersegment	1,337	99	65	251	55	(1,807)	
	5,151	6,032	4,164	3,066	227	(1,807)	16,833
Income from equity investments	25	133	1				159
EBITDA	1,582	1,228	678	(5)	108	(4)	3,587

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Six Months Ended June 30, 2016						
Millions of dollars	**O&P Americas**	**O&P EAI**	**I&D**	**Refining**	**Technology**	**Other**	**Total**
Sales and other operating revenues:							
Customers	$ 3,238	$ 5,220	$ 3,417	$ 1,987	$ 208	$ 1	$ 14,071
Intersegment	1,088	79	54	257	53	(1,531)	
	4,326	5,299	3,471	2,244	261	(1,530)	14,071
Income from equity investments	42	165	1				208
EBITDA	1,632	1,085	723	1	156	(7)	3,590

Our O&P Americas results for the first six months of 2017 include a $31 million gain on the first quarter sale of our Lake Charles, Louisiana site. EBITDA for our O&P EAI segment in the second quarter and first six months of 2017 include a $21 million non-cash gain stemming from the elimination of an obligation associated with a lease. Our I&D segment results for the first six months of 2017 include charges totaling $38 million primarily related to the settlement of precious metal financings in the first quarter.

Results for our O&P EAI segment in the second quarter of 2016 include a reversal of the first quarter 2016 non-cash, lower of cost or market (LCM) inventory valuation charge of $40 million necessitated by the recovery of market prices for several of our polyolefins products and naphtha. A recovery in market prices for benzene and styrene also necessitated the reversal of the $28 million LCM inventory valuation charge recognized in the first quarter of 2016 by our I&D segment. In the first six months of 2016, our O&P Americas and O&P EAI segments also benefited from gains of $57 million and $21 million, respectively, related to the sale of our wholly owned subsidiary, Petroken Petroquimica Ensenada S.A.

A reconciliation of EBITDA to Income from continuing operations before income taxes is shown in the following table for each of the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
EBITDA:				
Total segment EBITDA	$ 1,970	$ 1,787	$ 3,591	$ 3,597
Other EBITDA		(4)	(4)	(7)
Less:				
Depreciation and amortization expense	(286)	(266)	(582)	(534)
Interest expense	(95)	(83)	(302)	(165)
Add:				
Interest income	4	4	10	9
Income from continuing operations before income taxes	$ 1,593	$ 1,438	$ 2,713	$ 2,900

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Item 2. MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

GENERAL

This discussion and analysis should be read in conjunction with the information contained in our Consolidated Financial Statements and the accompanying notes elsewhere in this report. When we use the terms we, us, our or similar words in this discussion, unless the context otherwise requires, we are referring to LyondellBasell Industries N.V. and its consolidated subsidiaries.

OVERVIEW

We believe our second quarter results demonstrate the value of our investments in capacity expansions and asset maintenance. Our ethylene crackers in the U.S. and Europe and our refinery had very strong operating rates in the second quarter of 2017. Our high operating rates were met with solid demand to drive chain margin improvements in our O&P Americas and O&P EAI segments.

Significant items that affected our results during the second quarter and first six months of 2017 relative to the second quarter and first six months of 2016 include:

- Higher ethylene sales volumes in O&P Americas following completion of the expansion-related turnaround at our Corpus Christi, Texas, facility offset in part by lower polyolefins margins, compared to strong 2016 levels;

- Strong O&P EAI results with higher olefins margins, partially offset by a decline in polyolefin results;

- Lower I&D segment results in both 2017 periods with volume-driven decreases due to turnaround activities and lower results for oxyfuels and related products; and

- Increased crude oil processing rates leading to higher Refining segment results in the second quarter but more than offset by lower refining margins driven by lower yields and higher maintenance-related fixed costs in the first quarter and weaker industry conditions in the second quarter of 2017.

Other noteworthy items since the beginning of the year include the following:

- Increased quarterly dividend from $0.85 to $0.90 cents in May 2017;

- Issuance of $1,000 million of 3.5% guaranteed notes due 2027 in March 2017, used to redeem $1,000 million aggregate principal amount of our outstanding 5% senior notes due 2019; and

Repurchases of approximately 5 million and 7 million of our outstanding ordinary shares during the second quarter and first six months of 2017, respectively.

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Results of operations for the periods discussed are presented in the table below:

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Sales and other operating revenues	$ 8,403	$ 7,328	$ 16,833	$ 14,071
Cost of sales	6,601	5,702	13,592	10,868
Selling, general and administrative expenses	200	199	404	392
Research and development expenses	25	24	50	48
Operating income	1,577	1,403	2,787	2,763
Interest expense	(95)	(83)	(302)	(165)
Interest income	4	4	10	9
Other income (expense), net	29	(3)	59	85
Income from equity investments	78	117	159	208
Provision for income taxes	459	346	774	778
Income from continuing operations	1,134	1,092	1,939	2,122
Loss from discontinued operations, net of tax	(4)	(1)	(12)	(1)
Net income	$ 1,130	$ 1,091	$ 1,927	$ 2,121

RESULTS OF OPERATIONS

Revenues Revenues increased by $1,075 million, or 15%, in the second quarter of 2017 compared to the second quarter of 2016 and $2,762 million, or 20%, in the first six months of 2017 compared to the first six months of 2016.

Average sales prices in the second quarter and first six months of 2017 were higher across most products as sales prices generally correlate with crude oil prices, which on average, increased compared to the corresponding periods in 2016. These higher prices led to increases in revenues of 14% and 19%, respectively. Revenue increases of 2% in each of the second quarter and first six months of 2017 were largely the result of higher volumes in our O&P Americas, O&P-EAI and Refining segments.

The remaining 1% decrease in revenues are attributable to foreign exchange impacts that, on average, were unfavorable for the second quarter and first six months of 2017.

Cost of Sales Cost of sales increased by $899 million, or 16%, in the second quarter of 2017 compared to the second quarter of 2016 and by $2,724 million, or 25%, in the first six months of 2017 compared to the first six months of 2016 primarily due to increases in feedstock and energy costs.

Cost of sales in the second quarter of 2016 included a pre-tax benefit totaling $68 million for the reversal of non-cash LCM inventory valuation charges recognized in our O&P EAI and I&D segments during the first quarter of 2016.

Operating Income Operating income increased by $174 million in the second quarter of 2017 compared to the second quarter of 2016 and by $24 million in the first six months of 2017 compared to the first six months of 2016.

Operating income for the second quarter of 2016 included a benefit of $68 million related to the reversal of the LCM inventory valuation adjustment recognized in the first quarter of 2016. Operating income for the second quarter of 2017 increased relative to the second quarter of 2016 by $92 million, $126 million and $32 million in our O&P Americas, O&P EAI and Refining segments, respectively. These favorable impacts were offset in part by a decline of $57 million in our I&D segment.

Operating income for the first six months of 2017 increased relative to the first six months of 2016 by $169 million in our O&P EAI segment. This favorable impact was offset in part by declines of $56 million, $43 million and $46 million, respectively, in our O&P Americas, I&D and Technology segments.

Results for each of our business segments are discussed further in the Segment Analysis section below.

Interest Expense Interest expense increased by $12 million in the second quarter of 2017 compared to the second quarter of 2016 and by $137 million in the first six months of 2017 compared to the first six months of 2016.

Unfavorable impacts from our fixed-for-floating interest rate swaps related to our 5% senior notes due 2019, 6% senior notes due 2021 and 3.5% guaranteed notes due 2027 resulted in increases of $16 million and $24 million in interest expense during the second quarter and first six months of 2017, respectively. Reductions in interest expense of $13 million in each of the second quarter and first six months of 2017 related to the first quarter 2017 redemption of our 5% senior notes due 2019 were substantially offset in the second quarter of 2017 and more than offset in the first six months of 2017 by increased interest expense of $9 million and $14 million, respectively, related to debt issuances in March 2017 of our 3.5% guaranteed notes due 2027 and in March 2016 of our 1.875% guaranteed notes due 2022.

In the first six months of 2017, we also recognized charges totaling $113 million related to the March 2017 redemption of $1,000 million of our outstanding 5% senior notes due 2019. These charges included $65 million of prepayment premiums, $44 million for the write-off of the fair value adjustment associated with fair value hedges and $4 million for the write-off of associated unamortized debt issuance costs. For additional information related to the repayment of debt, see Note 5.

Other Income (Expense), Net Other income, net of $29 million in the second quarter of 2017 reflects an increase of $32 million over the prior year period largely due to a $21 million non-cash gain in our O&P EAI segment related to the elimination of an obligation associated with a lease. Other income, net of $59 million in the first six months of 2017 decreased by $26 million relative to the same period in 2016. In the first six months of 2017, we recognized a $31 million gain on the sale of our Lake Charles, Louisiana site, which was allocated to our O&P Americas segment and the $21 million benefit to our O&P EAI segment discussed above. In the first six months of 2016, we recognized a $78 million gain related to the sale of our wholly owned Argentine subsidiary. We allocated $57 million and $21 million of this gain to our O&P Americas and O&P EAI segments, respectively.

Income Tax Our effective income tax rate for the second quarter of 2017 was 28.8% compared with 24.1% for the second quarter of 2016 and for the first six months of 2017 was 28.5% compared with 26.8% for the first six months of 2016.

Our effective income tax rate fluctuates based on, among other factors, changes in pretax income in countries with varying statutory tax rates, the U.S. domestic production activity deduction, changes in valuation allowances, changes in foreign exchange gains/losses, the amount of exempt income, and changes in unrecognized tax benefits associated with uncertain tax positions.

The Company s exempt income primarily includes interest income and equity earnings of joint ventures. The interest income is earned by certain of our European subsidiaries through intercompany financings and is either untaxed or taxed at rates substantially lower than the U.S. statutory rate. The equity earnings are attributable to our joint ventures and these earnings when paid through dividends to certain European subsidiaries are eligible for participation exemptions, which exempt the dividend payments from all or portions of normal statutory income tax rates. We currently anticipate the favorable treatment for the interest income and dividends to continue in the near term; however, this treatment is based on current law and tax rulings, which could change. The foreign exchange gains/losses have a permanent impact on our effective income tax rate that can cause unpredictable movement in our effective income tax rate.

Compared with the second quarter of 2016, the higher effective tax rate for the second quarter of 2017 was primarily attributable to the prior year impact of a change in non-U.S. tax law on our deferred tax liabilities (3.5%), a decrease in exempt income (1.3%), changes in pretax income in countries with varying statutory tax rates (0.9%), and changes in valuation allowances (0.6%), partially offset by the impact of prior year adjustments to our deferred tax liabilities (-1.5%). Compared with the first six months of 2016, the higher effective tax rate for the first six months of 2017 was primarily attributable to the prior year impact of a change in non-U.S. tax law on our deferred tax liabilities (1.7%), changes in valuation allowances (0.9%), a decrease in exempt income (0.8%), changes in pretax income in countries with varying statutory tax rates (0.3%), partially offset by the impact of prior year adjustments to our deferred tax liabilities (-1.9%) and a reduction in foreign exchange gains (-0.5%).

We monitor income tax developments (including, for example, the U.S. tax reform proposals and the European Union s state aid investigations) in countries where we conduct business. In October 2016, the U.S. Treasury issued final Section 385 debt-equity regulations that may impact our internal financings; however, these regulations are currently under review by the Treasury Department pursuant to an Executive Order. Recently, there has been an increase in attention, both in the U.K. and globally, to the tax practices of multinational companies, including proposals by the Organization for Economic Cooperation and Development with respect to base erosion and profit shifting. Such attention may result in legislative changes that could affect our tax rate. Management does not believe that recent changes in income tax laws will have a material impact on our Consolidated Financial Statements, although new or proposed changes to tax laws could affect our tax liabilities in the future.

Comprehensive Income Comprehensive income increased by $177 million in the second quarter of 2017 compared to the second quarter of 2016 and decreased by $24 million in the first six months of 2017 compared to the first six months of 2016. The second quarter 2017 increase reflects higher net income in the second quarter of 2017, the favorable impacts of financial derivative adjustments and the net favorable impact of unrealized net changes in foreign currency translation adjustments. The decrease in the first six months of 2017 reflects lower net income, the favorable impacts of financial derivative adjustments and the net favorable impact of unrealized net changes in foreign currency translation adjustments.

In the second quarter and first six months of 2017, the cumulative effects of our derivatives designated as cash flow hedges were losses of $158 million and $160 million, respectively. The euro strengthened against the U.S. dollar in the second quarter and first six months of 2017 resulting in pre-tax losses of $128 million and $135 million, respectively, in the second quarter and first six months of 2017 related to our cross currency swaps. Pre-tax gains of $133 million and $158 million related to our cross currency swaps were reclassification adjustments included in net income in the second quarter and first six months of 2017, respectively. Unrealized losses of $24 million and $17 million in the second quarter and first six months of 2017, respectively, related to forward-starting interest rate swaps were driven by increases in benchmark interest rates during those periods.

The predominant functional currency for our operations outside of the U.S. is the euro. Relative to the U.S. dollar, the value of the euro increased during the second quarter and first six months of 2017 resulting in net gains as reflected in the Consolidated Statements of Comprehensive Income. These net gains include pre-tax losses of $147 million and $182 million, which represent the effective portion of the unrealized losses of our financial instruments designated as net investment hedges.

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Segment Analysis

We use earnings before interest, income taxes, and depreciation and amortization (EBITDA) as our measure of profitability for segment reporting purposes. This measure of segment operating results is used by our chief operating decision maker to assess the performance of and allocate resources to our operating segments. Intersegment eliminations and items that are not directly related or allocated to business operations are included in Other. For additional information related to our operating segments, as well as a reconciliation of EBITDA to its nearest GAAP measure, Income from continuing operations before income taxes, see Note 13, *Segment and Related Information*, to our Consolidated Financial Statements.

Our continuing operations are divided into five reportable segments: O&P Americas; O&P EAI; I&D; Refining; and Technology. Revenues and the components of EBITDA for the periods presented are reflected in the table below.

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Sales and other operating revenues:				
O&P Americas segment	$ 2,547	$ 2,211	$ 5,151	$ 4,326
O&P EAI segment	3,008	2,721	6,032	5,299
I&D segment	2,014	1,769	4,164	3,471
Refining segment	1,713	1,289	3,066	2,244
Technology segment	107	129	227	261
Other, including intersegment eliminations	(986)	(791)	(1,807)	(1,530)
Total	$ 8,403	$ 7,328	$ 16,833	$ 14,071
Operating income (loss):				
O&P Americas segment	$ 738	$ 646	$ 1,297	$ 1,353
O&P EAI segment	549	423	950	781
I&D segment	270	327	539	582
Refining segment	(21)	(53)	(91)	(83)
Technology segment	39	62	89	135
Other, including intersegment eliminations	2	(2)	3	(5)
Total	$ 1,577	$ 1,403	$ 2,787	$ 2,763
Depreciation and amortization:				
O&P Americas segment	$ 107	$ 88	$ 225	$ 178
O&P EAI segment	58	58	117	113
I&D segment	68	69	137	139
Refining segment	44	40	84	83
Technology segment	9	11	19	21
Total	$ 286	$ 266	$ 582	$ 534
Income from equity investments:				

O&P Americas segment	$	11	$	20	$	25	$	42
O&P EAI segment		67		96		133		165
I&D segment				1		1		1
Total	$	78	$	117	$	159	$	208

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Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Other income (expense), net:				
O&P Americas segment	$ 3	$	$ 35	$ 59
O&P EAI segment	25	(1)	28	26
I&D segment	1		1	1
Refining segment	2		2	1
Other, including intersegment eliminations	(2)	(2)	(7)	(2)
Total	$ 29	$ (3)	$ 59	$ 85
EBITDA:				
O&P Americas segment	$ 859	$ 754	$ 1,582	$ 1,632
O&P EAI segment	699	576	1,228	1,085
I&D segment	339	397	678	723
Refining segment	25	(13)	(5)	1
Technology segment	48	73	108	156
Other, including intersegment eliminations		(4)	(4)	(7)
Total	$ 1,970	$ 1,783	$ 3,587	$ 3,590

Olefins and Polyolefins Americas Segment

Overview Second quarter 2017 EBITDA increased due to higher olefins volumes and margins relative to the second quarter of 2016, partly offset by lower polypropylene spreads compared to strong second quarter 2016 levels. EBITDA for the first six months of 2017 decreased slightly compared to the first six months of 2016. Higher olefins volumes and margins in the first six months of 2017 were almost entirely offset by lower polyolefins margins. EBITDA for the first six months of 2017 included a $31 million gain on the sale of our Lake Charles, Louisiana, site. EBITDA for the first six months of 2016 included a $57 million gain on the sale of our wholly owned Argentine subsidiary.

Ethylene Raw Materials Production economics for the industry have favored natural gas liquids (NGLs) in recent years. While ethane continues to be the preferred U.S. olefins feedstock over time, there were periods during the second quarter and first six months of 2017 when crude oil based liquids (heavy liquids), had comparable or favored economics. These favorable economics resulted from co-product price increases, a more significant component of heavy liquid economics than for ethane, which outpaced feedstock price increases. We produced approximately 88% and 89% of our U.S. ethylene production from NGLs during the second quarters of 2017 and 2016, respectively, and 88% during each of the first six months of 2017 and 2016.

The following table sets forth selected financial information for the O&P Americas segment including Income from equity investments, which is a component of EBITDA:

	Three Months Ended	Six Months Ended

Millions of dollars	June 30, 2017	2016	June 30, 2017	2016
Sales and other operating revenues	$ 2,547	$ 2,211	$ 5,151	$ 4,326
Income from equity investments	11	20	25	42
EBITDA	859	754	1,582	1,632

Revenues Revenues for our O&P Americas segment increased by $336 million, or 15%, in the second quarter of 2017 compared to the second quarter of 2016 and by $825 million, or 19%, in the first six months of 2017 compared to the first six months of 2016.

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Average sales prices for most products increased in the second quarter and first six months of 2017, consistent with feedstock prices that are correlated with the price of crude oil, which on average increased relative to the second quarter and first six months of 2016. These higher sales prices were responsible for increases in revenues of 14% and 18% in the second quarter and first six months of 2017, respectively.

Higher olefins sales volumes following the completion of the turnaround and related expansion of our ethylene facility at Corpus Christi, Texas, led to revenue increases of 1% in each of the second quarter and first six months of 2017.

EBITDA EBITDA increased by $105 million, or 14%, in the second quarter of 2017 compared to the second quarter of 2016 and decreased by $50 million, or 3%, in the first six months of 2017 compared to the first six months of 2016.

The higher olefins volumes discussed above were responsible for a 14% increase in second quarter 2017 EBITDA versus the second quarter of 2016. Olefins margins increased in the second quarter of 2017 due to a 2 cents per pound average sales price increase that outpaced increases in feedstock costs. These higher olefins margins, which were substantially offset by a 7 cents per pound decline in polypropylene margins due to higher feedstock costs, also led to a 1% increase in EBITDA. These increases were partly offset by lower income from our equity investment in Mexico resulting in a 1% decrease in EBITDA.

In the first six months of 2017, margins were lower compared to the first six months of 2016 largely due to declines of 10 cents per pound in polypropylene spreads and 1 cent per pound in polyethylene spreads, which more than offset a 2 cents per pound increase in ethylene spreads. These lower spreads, which reflect the impact of higher polyolefins feedstock costs resulted in a 9% decrease in EBITDA for the first six months of 2017. Lower income from our equity investment in Mexico relative to the prior year period resulted in a decline in EBITDA of 1%. A 2% decrease in EBITDA compared to the prior year period reflects the net impact of the gain on sale of our wholly owned Argentine subsidiary in the first quarter of 2016 and the first quarter 2017 gain on sale of our Lake Charles, Louisiana site. These declines were partly offset by a 9% increase in EBITDA due to the higher olefins volumes discussed above.

Olefins and Polyolefins Europe, Asia, International Segment

Overview Improved EBITDA in the second quarter and first six months of 2017 versus the same periods in 2016 was driven by higher olefins margins, which were partly offset by lower polyethylene margins and lower income from our equity investments. EBITDA in the second quarter and first six months of 2017 includes the beneficial impact of $21 million related to the elimination of an obligation associated with a lease. EBITDA for the second quarter of 2016 benefited from the reversal of a $40 million non-cash LCM inventory valuation charge, while the first six months of 2016 included a $21 million gain on the sale of our wholly owned Argentine subsidiary recognized in the first quarter of 2016.

The following table sets forth selected financial information for the O&P EAI segment including Income from equity investments, which is a component of EBITDA:

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Sales and other operating revenues	$ 3,008	$ 2,721	$ 6,032	$ 5,299
Income from equity investments	67	96	133	165

EBITDA	699	576	1,228	1,085

Revenues Revenues increased by $287 million, or 11%, in the second quarter of 2017 compared to the second quarter of 2016 and by $733 million, or 14%, in the first six months of 2017 compared to the first six months of 2016.

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Average sales prices in the second quarter and first six months of 2017 were higher across most products as sales prices generally correlate with crude oil prices, which on average, increased compared to the second quarter and first six months of 2016. These higher average sales prices were responsible for revenue increases of 13% and 15%, respectively, in the second quarter and first six months of 2017. Better product availability compared to the second quarter and first six months of 2016, which was affected by turnaround activity and inventory requirements, led to higher olefins sales volumes, driven by ethylene. These higher olefins volumes were offset in the second quarter of 2017 by a corresponding decrease in polypropylene volumes. The resulting increase in sales volumes in the first six months of 2017 was responsible for a revenue increase of 1% over the same prior year period.

Foreign exchange impacts that, on average, were unfavorable for the second quarter and first six months of 2017 resulted in revenue decreases of 2% in each of the second quarter and first six months of 2017.

EBITDA EBITDA increased by $123 million, or 21%, in the second quarter of 2017 compared to the second quarter of 2016, and by $143 million, or 13%, in the first six months of 2017 compared to the first six months of 2016.

An increase in olefin margins, driven by higher ethylene and co-product sales prices, were partly offset in the second quarter and first six months of 2017 by decreases in European polyethylene spreads of approximately 5 cents per pound due to the higher costs of ethylene feedstock. These net improvements in margins contributed 28% and 14%, respectively, to the increases in EBITDA during the second quarter and first six months of 2017. Higher volumes stemming from increased operating rates also led to increases in EBITDA of 3% and 4% in the second quarter and first six months of 2017, respectively.

Lower income from our equity investments led to decreases in EBITDA of 5% and 3% in the second quarter and first six months of 2017, respectively. These declines were mainly attributable to lower results for our joint ventures in Poland and Asia. Unfavorable foreign exchange impacts also resulted in EBITDA decreases of 2% in each of the second quarter and first six months of 2017.

The absence of the second quarter 2016 benefit related to the reversal of the LCM inventory adjustment combined with the second quarter 2017 benefit associated primarily with the elimination of the lease obligation discussed above were responsible for an additional 3% decline in EBITDA compared to the second quarter of 2016.

Intermediates and Derivatives Segment

Overview Lower EBITDA for our I&D segment in the second quarter and first six months of 2017 relative to the second quarter and first six months of 2016 reflects the negative impacts of turnarounds at our Botlek, Netherlands, PO/TBA and Channelview, Texas, methanol facilities. These negative impacts were offset in part in the first six months of 2017 by stronger margins for intermediate chemicals products. EBITDA included charges related to the settlement of precious metal financings of $38 million in the first quarter of 2017, and $12 million and $19 million in the second quarter and first six months of 2016, respectively. EBITDA for the second quarter of 2016 also included a $28 million non-cash LCM inventory credit offsetting the charge booked in the first quarter of 2016.

The following table sets forth selected financial information for the I&D segment including Income from equity investments, which is a component of EBITDA:

	Three Months Ended	Six Months Ended

Millions of dollars	June 30, 2017	2016	June 30, 2017	2016
Sales and other operating revenues	$ 2,014	$ 1,769	$ 4,164	$ 3,471
Income from equity investments		1	1	1
EBITDA	339	397	678	723

Revenues Revenues increased by $245 million, or 14%, in the second quarter of 2017 compared to the second quarter of 2016 and by $693 million, or 20%, in the first six months of 2017 compared to the first six months of 2016.

Higher average sales prices in the second quarter and first six months of 2017 for most products, which reflect the impacts of higher feedstock and energy costs and recent industry supply constraints, were responsible for revenue increases of 16% and 23%, respectively. These increases were partially offset by revenue decreases of 1% and 2% during the second quarter and first six months of 2017, respectively, resulting from the impacts of lower sales volumes due to two major turnarounds at our Botlek, Netherlands, and Channelview, Texas, facilities.

The remaining changes in revenues reflect foreign exchange impacts that, on average, were unfavorable for the second quarter and first six months of 2017.

EBITDA EBITDA decreased $58 million, or 15%, in the second quarter of 2017 compared to the second quarter of 2016 and by $45 million, or 6%, in the first six months of 2017 compared to the first six months of 2016.

Second quarter 2017 EBITDA decreased largely due to a decline in oxyfuels and related products volumes associated with turnaround activities and lower margins. Approximately a quarter of this decrease was offset by an increase in intermediate chemicals product margins relative to the second quarter of 2016. These lower volumes and margins led to decreases in EBITDA of 5% and 6%, respectively. An additional net 4% decline in second quarter EBITDA as compared to the prior year period stems from the absence of the benefit of the LCM inventory valuation adjustment reversal and the $12 million charge related to settlements of precious metal financings.

EBITDA for the first six months of 2017 reflect lower oxyfuels and related products results as an improvement in intermediate chemicals results was offset by a corresponding decline in results for PO and derivatives. Lower volumes for oxyfuels and related products stemming from turnaround activities were largely responsible for a 4% decrease in EBITDA. The settlement of precious metal financings also resulted in a 3% decrease in EBITDA in the first six months of 2017. Improved margins for intermediate chemicals products driven by higher average sales prices for methanol in the first six months of 2017 were mostly offset by lower margins for certain PO derivatives and for oxyfuels and related products, both due to increased feedstock costs. The resulting margin improvement led to a 1% increase in EBITDA.

Refining Segment

Overview Results for our Refining segment in the second quarter and first six months of 2017 compared to the second quarter and first six months of 2016 benefited from higher crude processing rates as fewer planned and unplanned maintenance outages impacted EBITDA in 2017 than in the comparative periods in 2016. This benefit was reduced in the second quarter by the impact of lower industry margins and more than offset in the first six months of 2017 by lower margins driven by lower yields and higher maintenance-related fixed costs related to the turnaround activity in both years.

The following table sets forth selected financial information and heavy crude oil processing rates for the Refining segment and the U.S. refining market margins for the applicable periods. Light Louisiana Sweet, is a light, sweet crude oil, while Maya is a heavy, sour crude oil. References to industry benchmarks for refining market margins are to industry prices reported by Platts, a division of S&P Global.

Millions of dollars	Three Months Ended June 30, 2017	Three Months Ended June 30, 2016	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Sales and other operating revenues	$ 1,713	$ 1,289	$ 3,066	$ 2,244
EBITDA	25	(13)	(5)	1
Heavy crude processing rates, thousands of barrels per day	265	183	229	184
Market margins, dollars per barrel				
Light crude oil 2-1-1	$ 13.26	$ 11.52	$ 12.57	$ 10.13
Light crude Maya differential	6.28	9.55	7.55	9.37
Total Maya 2-1-1	$ 19.54	$ 21.07	$ 20.12	$ 19.50

Revenues Revenues increased by $424 million, or 33%, in the second quarter of 2017 compared to the second quarter of 2016 and by $822 million, or 37% in the first six months of 2017 compared to the first six months of 2016.

Higher product prices led to revenue increases of 19% and 32%, respectively, relative to the comparative periods in 2016 due to average crude oil price increases of approximately $6 and $12 per barrel in the second quarter and first six months of 2017, respectively. Heavy crude oil processing rates in the second quarter and first six months of 2017 increased 45% and 24%, respectively, leading to sales volume revenue increases of 14% and 5% in the second quarter and first six months of 2017, respectively.

EBITDA EBITDA increased by $38 million, or 292%, in the second quarter of 2017 compared to the second quarter of 2016 and decreased by $6 million, or 600%, in the first six months of 2017 compared to the first six months of 2016.

Higher production accounted for approximately 110% of the EBITDA improvement in the second quarter of 2017 relative to the prior year period, and provided a similar benefit for the first six months of 2017 in dollar terms. Crude oil processing rates in 2017 were higher than 2016, as the 2016 periods were negatively impacted by a coker unit fire in the second quarter and planned turnaround activity on a crude unit and a coker unit processing train in the first quarter. Downtime at crude units reduced crude oil processing rates in both periods.

Lower industry margins in the second quarter of 2017 primarily reflected lower price discounts for heavy crude oil such as Maya, but were mostly offset by operational margin improvements due to lower maintenance activity. Industry margins for the first six months of 2017 were slightly improved versus the prior year period due to a stronger first quarter, but declines in our refining margins more than offset this improvement due to lower yields associated with a first quarter 2017 fluid catalytic cracker unit turnaround and to higher fixed costs driven by maintenance activities in the first six months of 2017 versus the same prior year period.

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Technology Segment

Overview Operating results for the Technology segment reflect lower licensing revenues in the second quarter and first six months of 2017, partially offset in the first six months by higher catalyst sales volumes, compared to the second quarter and first six months of 2016.

The following table sets forth selected financial information for the Technology segment:

	Three Months Ended June 30,		Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**	**2017**	**2016**
Sales and other operating revenues	$ 107	$ 129	$ 227	$ 261
EBITDA	48	73	108	156

Revenues Revenues decreased by $22 million, or 17%, in the second quarter of 2017 compared to the second quarter of 2016, and by $34 million, or 13%, in the first six months of 2017 compared to the first six months of 2016.

Licensing and service revenues declined in the second quarter and first six months of 2017 resulting in revenue decreases of 15% and 18%, respectively, relative to the corresponding periods in 2016. Revenue decreases of 2% in each of the second quarter and first six months of 2017 resulted from foreign currency impacts that, on average, were unfavorable relative to the comparison periods in 2016.

In the second quarter of 2017, a price driven increase in revenues of 3% was offset by a corresponding decrease due to lower catalyst sales volumes. Higher catalyst sales volumes and prices in the first six months of 2017 were responsible for revenue increases of 5% and 2%, respectively.

EBITDA EBITDA decreased by $25 million, or 34%, in the second quarter of 2017 compared to the second quarter of 2016, and by $48 million, or 31%, in the first six months of 2017 compared to the first six months of 2016.

Lower licensing and services margins were largely responsible for EBITDA decreases of 29% and 38% during the second quarter and first six months of 2017, respectively. A decline in catalyst volumes in the second quarter of 2017 led to an additional decrease in EBITDA of 5%. The decrease due to lower licensing and services margins in the first six months of 2017 was partly offset by a 7%increase due to higher catalyst sales volumes.

FINANCIAL CONDITION

Operating, investing and financing activities of continuing operations, which are discussed below, are presented in the following table:

	Six Months Ended June 30,	
Millions of dollars	**2017**	**2016**
Source (use) of cash:		
Operating activities	$ 2,238	$ 2,561
Investing activities	(1,054)	(1,071)
Financing activities	(1,359)	(1,372)

Operating Activities

Cash of $2,238 million generated by operating activities in the first six months of 2017 reflects earnings adjusted for non-cash items and $462 million of cash consumed by the main components of working capital accounts receivable, inventories and accounts payable. Lower heavy liquid and natural gas liquids prices in our O&P Americas segment and a decrease in feedstock purchases in our O&P EAI segment led to the decline in accounts payable in the first six months of 2017. Higher sales prices and increased volumes in our O&P EAI segment led to the increase in accounts receivable. Higher olefin co-product and polyolefin prices in our O&P Americas segment in the first six months of 2017, which were partially offset by an inventory drawdown during turnaround activities at our I&D segment s Botlek, Netherlands facility, led to the increase in inventories.

Cash of $2,561 million generated in the first six months of 2016 primarily reflected earnings adjusted for non-cash items, including the $78 million gain related to the sale of our wholly owned Argentine subsidiary and adjustments for related working capital, and cash used by the main components of working capital.

The main components of working capital used cash of $94 million during the first six months of 2016. Higher sales prices for products in our O&P EAI segment in the first six months of 2016 combined with the impact of higher sales volumes for our I&D and Refining segments in the second quarter of 2016 relative to the fourth quarter of 2015 led to the increase in accounts receivable. The increase in accounts payable reflects increased feedstock costs in our O&P Americas segment and increased purchases of crude oil by our Refining segment.

Investing Activities We invest cash in investment-grade and other high quality instruments that provide adequate flexibility to redeploy funds as needed to meet our cash flow requirements while maximizing yield. In the first six months of 2017 and 2016, we invested $653 million and $607 million, respectively, in securities that are classified as Short-term investments. The majority of these investments are deemed available-for-sale; however, we also invested in some securities deemed held-to-maturity. We received proceeds of $75 million upon maturity of our held-to-maturity securities during the first six months of 2017. In the first six months of 2017 and 2016, we also invested $512 million and $168 million, respectively, in tri-party repurchase agreements, which are classified as short-term loans receivable. We received proceeds upon the sale and maturity of certain of our available-for-sale securities and repurchase agreements of $487 million and $381 million, respectively, in the first six months of 2017, and $657 million and $98 million, respectively, in the corresponding periods of 2016.

In April 2017, we increased our interest in the entity that holds our equity interest in Al Waha Petrochemicals Ltd. from 83.79% to 100% by paying $21 million to exercise a call option to purchase the remaining 16.21% interest held by a third party.

In December 2015, we entered into 750 million ($795 million) of forward exchange contracts, which were designated as net investment hedges of our investments in foreign subsidiaries. Payments to and proceeds from our counterparties upon settlement of these forward exchange contracts following their expiration in March 2016 resulted in a net cash outflow of $55 million.

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See Note 6 to the Consolidated Financial Statements for additional information regarding these investments.

In February 2016, we received net cash proceeds of $137 million for the sale of our wholly owned Argentine subsidiary.

The following table summarizes capital expenditures for the periods presented:

Millions of dollars	Six Months Ended June 30, 2017	Six Months Ended June 30, 2016
Capital expenditures by segment:		
O&P Americas	$ 381	$ 642
O&P EAI	79	141
I&D	184	156
Refining	163	128
Technology	13	15
Other	8	8
Consolidated capital expenditures of continuing operations	$ 828	$ 1,090

In the first six months of 2017 and 2016, our capital expenditures included construction related to our new Hyperzone polyethylene plant at our La Porte, Texas facility, debottlenecks of certain assets to enhance production, turnaround activities at several sites as well as other plant improvement projects. The lower level of capital expenditures for our O&P Americas in the first six months of 2017 is largely due to the completion of the 800 million pound ethylene expansion at our Corpus Christi, Texas facility in the fourth quarter of 2016.

Financing Activities In the first six months of 2017 and 2016, we made payments of $570 million and $1,682 million, respectively, to acquire approximately 7 million and 21 million, respectively, of our outstanding ordinary shares. We also made dividend payments totaling $704 million and $698 million during the first six months of 2017 and 2016, respectively. For additional information related to these share repurchases and dividend payments, see Note 11 to the Consolidated Financial Statements.

We received net proceeds of $1 million and $200 million in the first six months of 2017 and 2016, respectively, through the issuance and repurchase of commercial paper instruments under our commercial paper program.

In March 2017, we issued $1,000 million of 3.5% guaranteed notes due 2027 and received net proceeds of $990 million. The proceeds from these notes, together with available cash, were used to repay $1,000 million of our outstanding 5% senior notes due 2019. We paid $65 million in premiums in connection with this prepayment.

In March 2016, we issued 750 million of 1.875% guaranteed notes due 2022 and received net proceeds of $812 million. The net proceeds from these notes were used for general corporate purposes, including repurchases of LyondellBasell N.V. s ordinary shares.

Additional information related to these notes can be found in the Liquidity and Capital Resources section below and in Note 5 to the Consolidated Financial Statements.

Liquidity and Capital Resources As of June 30, 2017, we had $2,012 million of unrestricted cash and cash equivalents and marketable securities classified as Short-term investments. We also held $542 million of tri-party repurchase agreements classified as Prepaid expenses and other current assets at June 30, 2017. For additional information related to our purchases of marketable securities see Investing Activities above and Note 6 to the Consolidated Financial Statements.

At June 30, 2017, we held $430 million of cash in jurisdictions outside of the U.S., principally in the United Kingdom. There are currently no legal or economic restrictions that materially would impede our transfers of cash.

We also had total unused availability under our credit facilities of $2,881 million at June 30, 2017, which included the following:

- $1,999 million under our $2,500 million revolving credit facility, which backs our $2,500 million commercial paper program. In June 2017, the term of our $2,500 million revolving credit facility was extended for one year to June 2022 pursuant to a consent agreement. Availability under this facility is net of outstanding borrowings, outstanding letters of credit provided under the facility and notes issued under our commercial paper program. A small portion of our availability under this facility is impacted by changes in the euro/U.S. dollar exchange rate. At June 30, 2017, we had $498 million of outstanding commercial paper, no outstanding letters of credit and no outstanding borrowings under the facility; and

- $882 million under our $900 million U.S. accounts receivable securitization facility. Availability under this facility is subject to a borrowing base of eligible receivables, which is reduced by outstanding borrowings and letters of credit, if any. This facility had no outstanding borrowings or letters of credit at June 30, 2017.

In March 2017, our direct, 100% owned subsidiary, LYB International Finance II B.V., issued $1,000 million of 3.5% guaranteed notes due 2027 at a discounted price of 98.968%. These unsecured notes, which are fully and unconditionally guaranteed by LyondellBasell Industries N.V., rank equally in right of payment to all of LYB International Finance II B.V. s existing and future unsecured indebtedness and to all of LyondellBasell N.V. s existing and future unsubordinated indebtedness. The net proceeds from these notes, together with available cash, were used to repay $1,000 million aggregate principal amount of our outstanding 5% Senior Notes due 2019 in March 2017.

At June 30, 2017, we had total debt, including current maturities, of $9,059 million. We also had $538 million of outstanding letters of credit, bank guarantees and surety bonds issued under uncommitted credit facilities at June 30, 2017.

In accordance with our current interest rate risk management strategy and subject to management s evaluation of market conditions and the availability of favorable interest rates among other factors, we may from time to time enter into interest rate swap agreements to economically convert a portion of our fixed rate debt to variable rate debt or convert a portion of variable rate debt to fixed rate debt.

For additional information related to our credit facilities and Notes discussed above, see Note 5 to the Consolidated Financial Statements.

In May 2017, our shareholders approved a proposal to authorize us to repurchase up to an additional 10%, or approximately 40 million of our outstanding ordinary shares through November 2018 (May 2017 Share Repurchase Program). As a result, the authorization of the remaining unpurchased shares under the share repurchase program approved by our shareholders in May 2016 (May 2016 Share Repurchase Program) was superseded. Our share repurchase program does not have a stated dollar amount, and purchases may be made through open market purchases, private market transactions or other structured transactions. Repurchased shares could be retired or used for general corporate purposes, including for various employee benefit and compensation plans. During the first six months of 2017, we have purchased approximately 7 million shares under these programs for approximately $579 million. As of July 25, 2017, we had approximately 35 million shares remaining under the current authorization. The timing and amount of additional shares repurchased will be determined by our Management Board based on its evaluation of market conditions and other factors. For additional information related to our share repurchase programs, see Note 11 to the Consolidated Financial Statements.

We may repay or redeem our debt, including purchases of our outstanding bonds in the open market, using cash on hand, cash from operating activities, proceeds from the issuance of debt, proceeds from asset divestitures, or a combination thereof. In connection with any repayment or redemption of our debt, we may incur cash and non-cash charges, which could be material in the period in which they are incurred.

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We plan to fund our ongoing working capital, capital expenditures, debt service and other funding requirements with cash from operations, which could be affected by general economic, financial, competitive, legislative, regulatory, business and other factors, many of which are beyond our control. Cash on hand, cash from operating activities, proceeds from the issuance of debt, or a combination thereof, may be used to fund the repurchase of shares under our share repurchase program.

We intend to continue to declare and pay quarterly dividends, with the goal of increasing the dividend over time, after giving consideration to our cash balances and expected results from operations.

We believe that our cash on hand, cash from operating activities and proceeds from our credit facilities provide us with sufficient financial resources to meet our anticipated capital requirements and obligations as they come due.

CURRENT BUSINESS OUTLOOK

Olefin and polyolefin market demand is expected to continue to support strong global operating rates over the near term. We expect global demand for polyolefins to remain strong and supportive of chain margins for our shale-based and naphtha-based production assets, despite current pressure on domestic spot ethylene margins from strong industry operations and delays in new derivative capacity. The supply and inventories of natural gas and NGL feedstocks in the U.S. have remained abundant and we are encouraged by increased production, transportation and fractionation investments near the U.S. Gulf Coast. We are cautiously optimistic of improving demand in fuel markets given possible impacts of range-bound crude oil prices on our oxyfuels business and weak discounts for heavy crudes processed by our Refining segment. With no major maintenance planned for our facilities during the remainder of 2017, we look forward to the continued benefits of safe, reliable and cost-efficient operations from our global assets.

ACCOUNTING AND REPORTING CHANGES

For a discussion of the potential impact of new accounting pronouncements on our consolidated financial statements, see Note 2 to the Consolidated Financial Statements.

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CAUTIONARY STATEMENT FOR THE PURPOSES OF THE SAFE HARBOR PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995

This report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You can identify our forward-looking statements by the words anticipate, estimate, believe, continue, could, intend, may, plan, potential, predict, should, wi projection, forecast, goal, guidance, outlook, effort, target and similar expressions.

We based the forward-looking statements on our current expectations, estimates and projections about ourselves and the industries in which we operate in general. We caution you that these statements are not guarantees of future performance as they involve assumptions that, while made in good faith, may prove to be incorrect, and involve risks and uncertainties we cannot predict. Accordingly, our actual outcomes and results may differ materially from what we have expressed or forecast in the forward-looking statements. Any differences could result from a variety of factors, including the following:

- the cost of raw materials represents a substantial portion of our operating expenses, and energy costs generally follow price trends of crude oil and/or natural gas; price volatility can significantly affect our results of operations and we may be unable to pass raw material and energy cost increases on to our customers due to the significant competition that we face, the commodity nature of our products and the time required to implement pricing changes;

- our U.S. operations have benefited from low-cost natural gas and natural gas liquids; decreased availability of these materials (for example, from their export or regulations impacting hydraulic fracturing in the U.S.) could reduce the current benefits we receive;

- if crude oil prices fell materially, or decrease relative to U.S. natural gas prices, we would see less benefit from low-cost natural gas and natural gas liquids and it could have a negative effect on our results of operations;

- industry production capacities and operating rates may lead to periods of oversupply and low profitability; for example, there has been substantial capacity expansion announced in the U.S. olefins industry;

- we may face operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failure, unscheduled downtime, supplier disruptions, labor shortages, strikes, work stoppages or other labor difficulties, transportation interruptions, spills and releases and other environmental incidents) at any of our facilities, which would negatively impact our operating results; for example, because the Houston refinery is our only refining operation, we would not have the ability to increase production elsewhere to mitigate the impact of any outage at that facility;

environmental and other regulations may negatively impact our business by, among other things, restricting our operations, increasing costs of operations or requiring significant capital expenditures;

we may not be able to protect our market position or otherwise pass on cost increases to our customers due to the significant competition we face as a result of the commodity nature of many of our products;

changes in general economic, business, political and regulatory conditions in the countries or regions in which we operate could increase our costs, restrict our operations and reduce our operating results;

the negative outcome of any legal, tax and environmental proceedings or changes in laws or regulations regarding legal, tax and environmental matters may increase our costs or otherwise limit our ability to achieve savings under current regulations;

our ability to implement business strategies and execute our organic growth plans may be negatively affected or restricted by, among other things, our ability to complete projects on time and on budget and other events that may affect our ability to develop projects and strategies;

- uncertainties associated with worldwide economies could create reductions in demand and pricing, as well as increased counterparty risks, which could reduce liquidity or cause financial losses resulting from counterparty default;

- any loss or non-renewal of favorable tax treatment under agreements or treaties, or changes in laws, regulations or treaties, may substantially increase our tax liabilities;

- we may be required to reduce production or idle certain facilities because of the cyclical and volatile nature of the supply-demand balance in the chemical and refining industries, which would negatively affect our operating results;

- we rely on continuing technological innovation, and an inability to protect our technology, or others technological developments could negatively impact our competitive position;

- we have substantial international operations, and continued economic uncertainties, fluctuations in exchange rates, valuations of currencies and our possible inability to access cash from operations in certain jurisdictions on a tax-efficient basis, if at all, could negatively affect our liquidity and our results of operations;

- we are subject to the risks of doing business at a global level, including wars, terrorist activities, political and economic instability and disruptions and changes in governmental policies, which could cause increased expenses, decreased demand or prices for our products and/or disruptions in operations, all of which could reduce our operating results;

- if we are unable to comply with the terms of our credit facilities, indebtedness and other financing arrangements, those obligations could be accelerated, which we may not be able to repay; and

- we may be unable to incur additional indebtedness or obtain financing on terms that we deem acceptable, including for refinancing of our current obligations; higher interest rates and costs of financing would increase our expenses.

Any of these factors, or a combination of these factors, could materially affect our future results of operations and the ultimate accuracy of the forward-looking statements. These forward-looking statements are not guarantees of future performance, and our actual results and future developments may differ materially from those projected in the forward-looking statements. Our management cautions against putting undue reliance on forward-looking statements or projecting any future results based on such statements or present or prior earnings levels.

All subsequent written and oral forward-looking statements attributable to us or any person acting on our behalf are expressly qualified in their entirety by the cautionary statements contained or referred to in this section and any other cautionary statements that may accompany such forward-looking statements. Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Our exposure to market and regulatory risks is described in Item 7A of our Annual Report on Form 10-K for the year ended December 31, 2016. Our exposure to such risks has not changed materially in the six months ended June 30, 2017.

Item 4. CONTROLS AND PROCEDURES

As of June 30, 2017 with the participation of our management, our Chief Executive Officer (principal executive officer) and our Chief Financial Officer (principal financial officer) carried out an evaluation, pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934, as amended (the Act), of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Act). Based upon that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were operating effectively as of June 30, 2017.

There have been no changes in our internal control over financial reporting, as defined in Rule 13a-15(f) of the Act, in the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

Information regarding our litigation and other legal proceedings can be found in Note 10, *Commitments and Contingencies*, to the Consolidated Financial Statements, which is incorporated into this Item 1 by reference.

The following is a description of environmental proceedings to which a governmental authority is a party and potential monetary sanctions are reasonably likely to be $100,000 or more.

In March 2017, the Texas Commission on Environmental Quality (the TCEQ) issued a proposed Agreed Order to Houston Refining LP. The proposed Agreed Order stems from agency record reviews conducted from May to July 2016 and September to October 2016 and an agency investigation conducted in April 2016. In June 2017, TCEQ issued a revised Agreed Order that carries a total administrative penalty of $77,626.

Additional information about such environmental proceedings can be found in Part I, Item 3 of our 2016 Annual Report on Form 10-K, which is incorporated into this Item 1 by reference.

Item 1A. RISK FACTORS

There have been no material changes from the risk factors disclosed in Item 1A of our 2016 Annual Report on Form 10-K.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (1)	Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs (1)
April 1 April 30				19,668,640
May 1 May 31	2,586,319	$ 81.61	2,586,319	39,468,685
June 1 June 30	2,831,611	$ 80.91	2,831,611	36,637,074
Total	5,417,930	$ 81.24	5,417,930	36,637,074

(1) On May 24, 2017, we announced a share repurchase program of up to 40,087,633 of our ordinary shares through November 23, 2018, which superseded any prior repurchase authorizations. The maximum number

of shares that may yet be purchased is not necessarily an indication of the number of shares that will ultimately be purchased.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

Item 6. EXHIBITS

10.1	Consent Agreement, dated June 5, 2017, among LyondellBasell Industries N.V. and LYB Americas Finance Company LLC, as Borrowers, Bank of America, N.A., as Administrative Agent and the lender parties thereto (incorporated by reference to Exhibit 10 to our Current Report on Form 8-K filed with the SEC on June 7, 2017)
31.1	Certification of Principal Executive Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934
31.2	Certification of Principal Financial Officer pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934
32	Certifications pursuant to 18 U.S.C. Section 1350
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.DEF	XBRL Definition Linkbase Document
101.LAB	XBRL Labels Linkbase Document
101.PRE	XBRL Presentation Linkbase Document

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SIGNATURE

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.

LYONDELLBASELL INDUSTRIES N.V.

Date: July 28, 2017

/s/ Michael W. Sumruld
Michael W. Sumruld
Vice President and
Chief Accounting Officer
(Principal Accounting Officer)