

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-Q

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

For the quarterly period ended September 30, 2020

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)

Netherlands
(State or other jurisdiction of
incorporation or organization)

98-0646235
(I.R.S. Employer
Identification No.)

**1221 McKinney St.,
Suite 300
Houston, Texas
USA 77010**

**4th Floor, One Vine Street
London
W1J0AH
United Kingdom**

**Delftseplein 27E
3013AA Rotterdam
Netherlands**

(Addresses of registrant's principal executive offices)

(713) 309-7200

+44 (0) 207 220 2600

+31 (0) 10 2755 500

(Registrant's telephone numbers, including area codes)

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

Securities registered pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol</u>	<u>Name of Each Exchange On Which Registered</u>
Ordinary Shares, €0.04 Par Value	LYB	New York Stock Exchange

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 ☒

The registrant had 333,919,065 ordinary shares, €0.04 par value, outstanding at October 28, 2020 (excluding 6,126,563 treasury shares).

LYONDELLBASELL INDUSTRIES N.V.

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PART I. FINANCIAL INFORMATION

ITEM 1. CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

LYONDELLBASELL INDUSTRIES N.V. CONSOLIDATED STATEMENTS OF INCOME

Millions of dollars, except earnings per share	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues:				
Trade	\$ 6,587	\$ 8,527	\$ 19,261	\$ 25,920
Related parties	189	195	555	628
	6,776	8,722	19,816	26,548
Operating costs and expenses:				
Cost of sales	5,885	7,269	17,647	22,257
Impairment of long-lived assets	582	—	582	—
Selling, general and administrative expenses	259	303	842	892
Research and development expenses	27	26	79	81
	6,753	7,598	19,150	23,230
Operating income	23	1,124	666	3,318
Interest expense	(122)	(86)	(336)	(259)
Interest income	3	5	10	16
Other income, net	23	11	27	46
(Loss) income from continuing operations before equity investments and income taxes	(73)	1,054	367	3,121
Income from equity investments	62	51	123	179
(Loss) income from continuing operations before income taxes	(11)	1,105	490	3,300
(Benefit from) provision for income taxes	(125)	136	(82)	508
Income from continuing operations	114	969	572	2,792
Loss from discontinued operations, net of tax	—	(4)	—	(7)
Net income	114	965	572	2,785
Dividends on redeemable non-controlling interests	(2)	(2)	(5)	(5)
Net income attributable to the Company shareholders	\$ 112	\$ 963	\$ 567	\$ 2,780
Earnings per share:				
Net income (loss) attributable to the Company shareholders —				
Basic:				
Continuing operations	\$ 0.33	\$ 2.86	\$ 1.69	\$ 7.74
Discontinued operations	—	(0.01)	—	(0.02)
	\$ 0.33	\$ 2.85	\$ 1.69	\$ 7.72
Diluted:				
Continuing operations	\$ 0.33	\$ 2.86	\$ 1.69	\$ 7.74
Discontinued operations	—	(0.01)	—	(0.02)
	\$ 0.33	\$ 2.85	\$ 1.69	\$ 7.72

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Millions of dollars	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net income	\$ 114	\$ 965	\$ 572	\$ 2,785
Other comprehensive income (loss), net of tax –				
Financial derivatives	75	(112)	(289)	(230)
Unrealized gains on available-for-sale debt securities	—	—	1	1
Defined benefit pension and other postretirement benefit plans	10	5	31	15
Foreign currency translations	86	(114)	(47)	(106)
Total other comprehensive income (loss), net of tax	171	(221)	(304)	(320)
Comprehensive income	285	744	268	2,465
Dividends on redeemable non-controlling interests	(2)	(2)	(5)	(5)
Comprehensive income attributable to the Company shareholders	<u>\$ 283</u>	<u>\$ 742</u>	<u>\$ 263</u>	<u>\$ 2,460</u>

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED BALANCE SHEETS

Millions of dollars	September 30, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,459	\$ 858
Restricted cash	25	30
Short-term investments	361	196
Accounts receivable:		
Trade, net	2,819	2,981
Related parties	155	121
Inventories	4,005	4,588
Prepaid expenses and other current assets	935	736
Total current assets	10,759	9,510
Operating lease assets	1,386	1,468
Property, plant and equipment, at cost	20,883	21,260
Less: Accumulated depreciation	(6,750)	(7,130)
Property, plant and equipment, net	14,133	14,130
Investments and long-term receivables:		
Investment in PO joint ventures	509	504
Equity investments	2,085	1,602
Other investments and long-term receivables	26	22
Goodwill	1,880	1,891
Intangible assets, net	752	869
Other assets	419	439
Total assets	\$ 31,949	\$ 30,435

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED BALANCE SHEETS

<u>Millions of dollars, except shares and par value data</u>	<u>September 30,</u> <u>2020</u>	<u>December 31, 2019</u>
LIABILITIES, REDEEMABLE NON-CONTROLLING INTERESTS AND EQUITY		
Current liabilities:		
Current maturities of long-term debt	\$ 2	\$ 3
Short-term debt	616	445
Accounts payable:		
Trade	2,013	2,516
Related parties	466	412
Accrued liabilities	1,685	1,822
Total current liabilities	4,782	5,198
Long-term debt	13,759	11,614
Operating lease liabilities	1,122	1,216
Other liabilities	3,038	2,213
Deferred income taxes	1,809	2,015
Commitments and contingencies		
Redeemable non-controlling interests	116	116
Shareholders' equity:		
Ordinary shares, €0.04 par value, 1,275 million shares authorized, 333,918,359 and 333,476,883 shares outstanding, respectively	19	19
Additional paid-in capital	5,975	5,954
Retained earnings	3,940	4,435
Accumulated other comprehensive loss	(2,088)	(1,784)
Treasury stock, at cost, 6,127,269 and 6,568,745 ordinary shares, respectively	(540)	(580)
Total Company share of shareholders' equity	7,306	8,044
Non-controlling interests	17	19
Total equity	7,323	8,063
Total liabilities, redeemable non-controlling interests and equity	\$ 31,949	\$ 30,435

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED STATEMENTS OF CASH FLOWS

<u>Millions of dollars</u>	Nine Months Ended September 30,	
	2020	2019
Cash flows from operating activities:		
Net income	\$ 572	\$ 2,785
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	1,056	977
Impairment of long-lived assets	582	—
Amortization of debt-related costs	12	7
Share-based compensation	43	36
Inventory valuation charges	163	—
Equity investments—		
Equity income	(123)	(179)
Distributions of earnings, net of tax	104	159
Deferred income taxes	(135)	189
Changes in assets and liabilities that provided (used) cash:		
Accounts receivable	152	(46)
Inventories	452	(12)
Accounts payable	(90)	(7)
Other, net	(127)	(190)
Net cash provided by operating activities	2,661	3,719
Cash flows from investing activities:		
Expenditures for property, plant and equipment	(1,673)	(1,963)
Purchases of available-for-sale debt securities	(270)	—
Proceeds from sales and maturities of available-for-sale debt securities	90	511
Purchases of equity securities	(267)	—
Proceeds from sales of equity securities	313	332
Acquisition of equity method investment	(472)	—
Other, net	(28)	(90)
Net cash used in investing activities	(2,307)	(1,210)
Cash flows from financing activities:		
Repurchases of Company ordinary shares	(4)	(3,752)
Dividends paid - common stock	(1,053)	(1,111)
Purchase of non-controlling interest	(30)	(63)
Issuance of long-term debt	2,492	2,096
Repayments of long-term debt	(500)	(2,000)
Payments of debt issuance costs	(18)	(12)
Issuance of short-term debt	521	2,500
Repayments of short-term debt	(504)	—
Net proceeds from (repayments of) commercial paper	194	(23)
Payments on forward-starting interest rate swaps that include financing elements	(238)	—
Proceeds from settlement of cash flow hedges	346	—
Other, net	(14)	(17)
Net cash provided by (used in) financing activities	1,192	(2,382)
Effect of exchange rate changes on cash	50	(16)
Increase in cash and cash equivalents and restricted cash	1,596	111
Cash and cash equivalents and restricted cash at beginning of period	888	401
Cash and cash equivalents and restricted cash at end of period	\$ 2,484	\$ 512

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

<u>Millions of dollars</u>	<u>Ordinary Shares</u>		<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Company Share of Shareholders' Equity</u>	<u>Non- Controlling Interests</u>
	<u>Issued</u>	<u>Treasury</u>					
Balance, June 30, 2020	\$ 19	\$ (548)	\$ 5,958	\$ 4,188	\$ (2,259)	\$ 7,358	\$ 19
Net income	—	—	—	114	—	114	—
Other comprehensive income	—	—	—	—	171	171	—
Share-based compensation	—	8	17	(8)	—	17	—
Dividends - common stock (\$1.05 per share)	—	—	—	(352)	—	(352)	—
Dividends - redeemable non-controlling interests (\$15.00 per share)	—	—	—	(2)	—	(2)	—
Distributions to non-controlling interests	—	—	—	—	—	—	(2)
Balance, September 30, 2020	<u>\$ 19</u>	<u>\$ (540)</u>	<u>\$ 5,975</u>	<u>\$ 3,940</u>	<u>\$ (2,088)</u>	<u>\$ 7,306</u>	<u>\$ 17</u>

<u>Millions of dollars</u>	<u>Ordinary Shares</u>		<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Company Share of Shareholders' Equity</u>	<u>Non- Controlling Interests</u>
	<u>Issued</u>	<u>Treasury</u>					
Balance, June 30, 2019	\$ 22	\$ (2,663)	\$ 7,006	\$ 7,818	\$ (1,462)	\$ 10,721	\$ 22
Net income	—	—	—	965	—	965	—
Other comprehensive loss	—	—	—	—	(221)	(221)	—
Share-based compensation	—	5	11	—	—	16	—
Dividends - common stock (\$1.05 per share)	—	—	—	(351)	—	(351)	—
Dividends - redeemable non-controlling interests (\$15.00 per share)	—	—	—	(2)	—	(2)	—
Repurchases of Company ordinary shares	—	(3,240)	—	—	—	(3,240)	—
Purchase of non-controlling interest	—	—	—	—	—	—	(4)
Balance, September 30, 2019	<u>\$ 22</u>	<u>\$ (5,898)</u>	<u>\$ 7,017</u>	<u>\$ 8,430</u>	<u>\$ (1,683)</u>	<u>\$ 7,888</u>	<u>\$ 18</u>

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

Millions of dollars	Ordinary Shares		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Company Share of Shareholders' Equity	Non- Controlling Interests
	Issued	Treasury					
Balance, December 31, 2019	\$ 19	\$ (580)	\$ 5,954	\$ 4,435	\$ (1,784)	\$ 8,044	\$ 19
Net income	—	—	—	572	—	572	—
Other comprehensive loss	—	—	—	—	(304)	(304)	—
Share-based compensation	—	44	14	(9)	—	49	—
Dividends - common stock (\$3.15 per share)	—	—	—	(1,053)	—	(1,053)	—
Dividends - redeemable non-controlling interests (\$45.00 per share)	—	—	—	(5)	—	(5)	—
Repurchases of Company ordinary shares	—	(4)	—	—	—	(4)	—
Purchase of non-controlling interest	—	—	7	—	—	7	—
Distributions to non-controlling interests	—	—	—	—	—	—	(2)
Balance, September 30, 2020	<u>\$ 19</u>	<u>\$ (540)</u>	<u>\$ 5,975</u>	<u>\$ 3,940</u>	<u>\$ (2,088)</u>	<u>\$ 7,306</u>	<u>\$ 17</u>

Millions of dollars	Ordinary Shares		Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Loss	Company Share of Shareholders' Equity	Non- Controlling Interests
	Issued	Treasury					
Balance, December 31, 2018	\$ 22	\$ (2,206)	\$ 7,041	\$ 6,763	\$ (1,363)	\$ 10,257	\$ 23
Net income	—	—	—	2,785	—	2,785	—
Other comprehensive loss	—	—	—	—	(320)	(320)	—
Share-based compensation	—	36	23	(2)	—	57	—
Dividends - common stock (\$3.10 per share)	—	—	—	(1,111)	—	(1,111)	—
Dividends - redeemable non-controlling interests (\$45.00 per share)	—	—	—	(5)	—	(5)	—
Repurchases of Company ordinary shares	—	(3,728)	—	—	—	(3,728)	—
Purchase of non-controlling interest	—	—	(47)	—	—	(47)	(5)
Balance, September 30, 2019	<u>\$ 22</u>	<u>\$ (5,898)</u>	<u>\$ 7,017</u>	<u>\$ 8,430</u>	<u>\$ (1,683)</u>	<u>\$ 7,888</u>	<u>\$ 18</u>

See Notes to the Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

1. Basis of Presentation

LyondellBasell Industries N.V. is a limited liability company (Naamloze Vennootschap) incorporated under Dutch law by deed of incorporation dated October 15, 2009. Unless otherwise indicated, the “Company,” “we,” “us,” “our” or similar words are used to refer to LyondellBasell Industries N.V. together with its consolidated subsidiaries (“LyondellBasell N.V.”).

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 the production of polymers.

The accompanying unaudited Consolidated Financial Statements have been prepared from the books and records of LyondellBasell N.V. in accordance with the instructions to Form 10-Q and Rule 10-01 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, including normal recurring adjustments, considered necessary for a fair statement 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, 2019.

Events surrounding the COVID-19 pandemic, continue to evolve and negatively impact global markets and demand for our products. We continue to assess the potential financial statement impacts of COVID-19 and commodity price volatility throughout the duration of the pandemic. The extent of the impact of the pandemic on our operational and financial performance will depend on future developments which are uncertain and cannot be predicted. An extended period of economic disruption could have a material adverse impact on our business, results of operations, access to sources of liquidity and financial condition.

2. Accounting and Reporting Changes

Recently Adopted Guidance

The following table provides a brief description of recently adopted Accounting Standard Updates (“ASU”) issued by the Financial Accounting Standards Board (“FASB”). The adoption of the new standards listed below in the first quarter of 2020 did not have a material impact on our Consolidated Financial Statements.

Standard	Description
ASU 2020-04, <i>Facilitation of the Effects of Relief of Reference Rate Reform on Financial Reporting</i>	This guidance provides optional expedients and exceptions for applying generally accepted accounting principles to contracts, hedging relationships and other transactions that reference London Inter-Bank Offered Rate (“LIBOR”), or another reference rate, expected to be discontinued because of reference rate reform, if certain criteria are met. The expedients and exceptions provided by this guidance are available from January 1, 2020, prospectively, and do not apply to contract modifications made and hedging relationships entered into or evaluated after December 31, 2022, except for hedging relationships existing as of December 31, 2022, that an entity has elected certain optional expedients for and that are retained through the end of the hedging relationship. The adoption of the guidance enables us to continue hedge accounting for the relevant designated hedges and is expected to ease the accounting burden associated with transitioning away from reference rates that are expected to be discontinued.
ASU 2020-03, <i>Codification Improvements to Financial Instruments</i>	This guidance makes narrow-scope changes that are intended to improve the guidance on financial instruments and current expected credit loss (“CECL”). We adopted the guidance related to CECL and other amendments on a modified retrospective basis.

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Standard	Description
ASU 2019-12, <i>Simplifying the Accounting for Income Taxes</i>	This guidance enhances and simplifies various aspects of income tax accounting by removing exceptions for recognizing deferred taxes for changes from a subsidiary to an equity method investment and vice versa, performing intraperiod allocation and calculating income taxes in interim periods. The new guidance also reduces complexity in certain areas, including the tax basis step-up in goodwill in a transaction that is not a business combination and interim period accounting for enacted changes in tax law. We early adopted the amendments applicable to us on a prospective basis.
ASU 2018-15, <i>Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement that is a Service Contract</i>	This guidance requires a customer in a hosted, cloud computing arrangement that is a service contract to follow the internal-use software guidance to determine which implementation costs to capitalize as assets or expense as incurred. Capitalized costs are amortized over the term of the hosting arrangement when the recognized asset is ready for its intended use.
ASU 2018-13, <i>Disclosure Framework - Change to the Disclosure Requirements for Fair Value Measurement</i>	This guidance eliminates, adds and modifies certain disclosure requirements for fair value measurements as part of its disclosure framework project. It removes transfer disclosures between Level 1 and Level 2 of the fair value hierarchy, and adds disclosures for the range and weighted average used to develop significant unobservable inputs for Level 3 fair value measurements.

Accounting Guidance Issued But Not Adopted as of September 30, 2020

Standard	Description
ASU 2018-14, <i>Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans</i>	This guidance changes disclosure requirements for employers that sponsor defined benefit pension and/or other postretirement benefit plans. It eliminates the requirement of certain disclosures that are no longer considered cost beneficial and adds more pertinent disclosures. This guidance will be effective for public entities for annual periods ending after December 15, 2020. Early adoption is permitted. The adoption of this guidance will not have a material impact on our Consolidated Financial Statements.
ASU 2020-06, <i>Debt - Debt with Conversion and Other Options and Derivatives and Hedging - Contracts in Entity's Own Equity</i>	This guidance simplifies the accounting for convertible instruments by removing the separation models for cash conversion and beneficial conversion features and requires such instruments to be presented wholly as debt unless it contains a derivative requiring bifurcation or if it was issued at a substantial premium. The guidance for the derivatives scope exception for contracts in an entity's own equity was also amended to reduce the to reduce form-over-substance-based accounting conclusions and improves/amends the related EPS guidance. This guidance will be effective for public entities for fiscal years and interim periods within those fiscal years beginning after December 15, 2021. Early adoption is permitted. The adoption of this guidance will not have a material impact on our Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

3. Revenues

Contract Balances—Contract liabilities were \$199 million and \$124 million at September 30, 2020 and December 31, 2019, respectively. Revenue recognized in each reporting period, included in the contract liability balance at the beginning of the period, was immaterial.

Disaggregation of Revenues—The following table presents our revenues disaggregated by key products:

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Sales and other operating revenues:				
Olefins and co-products	\$ 568	\$ 709	\$ 1,695	\$ 2,202
Polyethylene	1,423	1,509	4,159	4,713
Polypropylene	1,103	1,251	3,173	3,883
Propylene oxide and derivatives	421	481	1,217	1,498
Oxyfuels and related products	573	837	1,669	2,298
Intermediate chemicals	486	655	1,434	2,000
Compounding and solutions	834	991	2,295	3,193
Advanced polymers	169	194	501	588
Refined products	1,003	1,952	3,193	5,706
Other	196	143	480	467
Total	<u>\$ 6,776</u>	<u>\$ 8,722</u>	<u>\$ 19,816</u>	<u>\$ 26,548</u>

The following table presents our revenues disaggregated by geography, based upon the location of the customer:

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Sales and other operating revenues:				
United States	\$ 2,983	\$ 4,190	\$ 8,587	\$ 12,333
Germany	494	671	1,533	2,112
China	369	299	914	895
Italy	290	361	884	1,133
Mexico	285	390	868	1,349
France	213	324	644	1,049
Japan	161	282	639	740
Poland	205	238	617	759
The Netherlands	197	226	562	748
Other	1,579	1,741	4,568	5,430
Total	<u>\$ 6,776</u>	<u>\$ 8,722</u>	<u>\$ 19,816</u>	<u>\$ 26,548</u>

4. Impairment of Long-Lived Assets

During the third quarter of 2020, we identified impairment triggers relating to our Houston refinery's asset group as a result of significant negative impacts to the Refining segment forecasted cash flows. We expect that prolonged reduction of travel and associated transportation fuels consumption resulting from the pandemic has created length in global fuel markets that will pressure refining profitability for an extended period of time. In addition, the refinery is expected to continue to be adversely affected by lower discounts for the heavy crude oil feedstocks that we utilize.

Due to these trends, we assessed the Houston refinery for impairment and determined that the asset group carrying value exceeded its undiscounted estimated pre-tax cash flows. We estimated the fair value of the Houston refinery's long-lived assets to be \$560 million, which was less than the carrying value. As a result, we recognized a non-cash impairment charge in the third quarter of 2020 of \$582 million. The fair value measurement for the asset group is a Level 3.

5. Accounts Receivable

Our accounts receivable are reflected in the Consolidated Balance Sheets net of allowance for credit losses of \$15 million and \$16 million at September 30, 2020 and December 31, 2019, respectively.

6. Inventories

Inventories consisted of the following components:

Millions of dollars	September 30, 2020	December 31, 2019
Finished goods	\$ 2,529	\$ 3,083
Work-in-process	154	130
Raw materials and supplies	1,322	1,375
Total inventories	<u>\$ 4,005</u>	<u>\$ 4,588</u>

Our inventories are stated at the lower of cost or market ("LCM"). Cost is determined using the last-in, first-out ("LIFO") inventory valuation methodology, which means that the most recently incurred costs are charged to cost of sales and inventories are valued at the earliest acquisition costs. Market is determined based on an assessment of the current estimated replacement cost and selling price of the inventory. In periods where the market price of our inventory declines substantially, cost values of inventory may be higher than the market value, and as a result we adjust the value of inventory to market value. Fluctuations in the prices of crude oil, natural gas and correlated products from period to period may result in the recognition of charges to adjust the value of inventory to the lower of cost or market in periods of falling prices and the reversal of those charges in subsequent interim periods, within the fiscal year, as market prices recover.

During the first nine months of 2020, we recognized an LCM inventory valuation charge of \$163 million related to the decline in pricing for many of our raw material and finished goods inventories since December 31, 2019. During the third quarter of 2020, we recognized an LCM inventory valuation benefit of \$160 million, largely driven by the recovery of market pricing for many of our raw material and finished goods inventories during the quarter.

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

7. Equity Investments

During the third quarter of 2020, we executed a joint venture agreement with the Liaoning Bora Enterprise Group (“Bora”) to form the Bora LyondellBasell Petrochemical Co. Ltd (“BLYB”). We contributed \$472 million in cash for a 50% equity interest in the joint venture. This joint venture is included in our Olefins and Polyolefins–Europe, Asia, International segment. Production began at the BLYB complex during the third quarter of 2020.

BLYB’s manufacturing facility located in Panjin, China includes a 1.1 million tons per annum flexible naphtha / LPG cracker and associated polyethylene production capacity of 0.8 million tons per annum and 0.6 million tons per annum of polypropylene. The materials produced at the facility serve various industries in China, including packaging, transportation, building and construction, and healthcare and hygiene. The complex utilizes LyondellBasell’s *Spheripol* and *Spherizone* polypropylene technologies along with the company’s *Hostalen* ACP polyethylene technology. We will market all the polypropylene and high-density polyethylene produced.

Additionally, on October 1, 2020 we signed a definitive agreement with Sasol Chemicals (USA) LLC (“Sasol”) to form the Louisiana Integrated PolyEthylene JV LLC joint venture (the “Louisiana Joint Venture”). The transaction is expected to close by the end of 2020, subject to customary regulatory approvals and approval by Sasol shareholders. Following closing and through the creation of this joint venture, we will acquire 50% of the 1.5 million ton ethane cracker, 0.9 million ton low and linear-low density polyethylene plants and associated infrastructure located in Lake Charles, Louisiana, for a total cash consideration of \$2 billion subject to customary adjustments for working capital and other items. Following closing, the joint venture will be included within our Olefins and Polyolefins–Americas segment. Under the terms of the transaction agreements, each joint venture partner will provide pro-rata shares of ethane feedstocks and will off-take pro-rata shares of cracker and polyethylene products. We will operate the Louisiana Joint Venture assets and market all the polyethylene off-take through our global sales team.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

8. Debt

Long-term loans, notes and other debt, net of unamortized discount and debt issuance cost, consisted of the following:

Millions of dollars	September 30, 2020	December 31, 2019
Senior Notes due 2021, \$1,000 million, 6.0% (\$2 million of debt issuance cost)	\$ 1,010	\$ 998
Senior Notes due 2024, \$1,000 million, 5.75% (\$4 million of debt issuance cost)	996	995
Senior Notes due 2055, \$1,000 million, 4.625% (\$16 million of discount; \$11 million of debt issuance cost)	973	973
Term Loan due 2022, \$4,000 million (\$1 million of debt issuance costs)	1,949	1,950
Guaranteed Notes due 2022, €750 million, 1.875% (\$1 million of discount; \$1 million of debt issuance cost)	877	841
Guaranteed Notes due 2023, \$750 million, 4.0% (\$3 million of discount; \$2 million of debt issuance cost)	745	744
Guaranteed Notes due 2025, \$500 million, 2.875% (\$4 million of debt issuance cost)	496	—
Guaranteed Notes due 2026, €500 million, 0.875% (\$2 million of discount; \$3 million of debt issuance cost)	582	555
Guaranteed Notes due 2027, \$1,000 million, 3.5% (\$7 million of discount; \$6 million of debt issuance cost)	1,093	1,023
Guaranteed Notes due 2027, \$300 million, 8.1%	300	300
Guaranteed Notes due 2030, \$500 million, 3.375% (\$1 million of discount; \$4 million of debt issuance cost)	495	—
Guaranteed Notes due 2031, €500 million, 1.625% (\$5 million of discount; \$4 million of debt issuance cost)	576	552
Guaranteed Notes due 2043, \$750 million, 5.25% (\$20 million of discount; \$7 million of debt issuance cost)	723	723
Guaranteed Notes due 2044, \$1,000 million, 4.875% (\$10 million of discount; \$9 million of debt issuance cost)	981	980
Guaranteed Notes due 2049, \$1,000 million, 4.2% (\$15 million of discount; \$10 million of debt issuance cost)	975	975
Guaranteed Notes due 2050, \$1,000 million, 4.2% (\$6 million of discount; \$10 million of debt issuance cost)	984	—
Other	6	8
Total	13,761	11,617
Less current maturities	(2)	(3)
Long-term debt	<u>\$ 13,759</u>	<u>\$ 11,614</u>

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Fair value hedging adjustments associated with the fair value hedge accounting of our fixed-for-floating interest rate swaps for the applicable periods are as follows:

Millions of dollars	Inception Year	Gains (Losses)				Cumulative Fair Value Hedging Adjustments Included in Carrying Amount of Debt	
		Three Months Ended September 30,		Nine Months Ended September 30,		September 30,	December 31,
		2020	2019	2020	2019	2020	2019
Senior Notes due 2019, 5.0%	2014	\$ —	\$ —	\$ —	\$ (11)	\$ —	\$ —
Senior Notes due 2021, 6.0%	2016	3	(3)	(11)	(23)	(12)	(1)
Guaranteed Notes due 2027, 3.5%	2017	4	(21)	(69)	(78)	(106)	(37)
Guaranteed Notes due 2022, 1.875%	2018	—	—	1	(1)	(1)	(2)
Guaranteed Notes due 2026, 0.875%	2020	(1)	—	(2)	—	(2)	—
Total		<u>\$ 6</u>	<u>\$ (24)</u>	<u>\$ (81)</u>	<u>\$ (113)</u>	<u>\$ (121)</u>	<u>\$ (40)</u>

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

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

Millions of dollars	September 30, 2020	December 31, 2019
U.S. Receivables Facility	\$ —	\$ —
Commercial paper	455	262
Precious metal financings	138	181
Other	23	2
Total Short-term debt	<u>\$ 616</u>	<u>\$ 445</u>

Long-Term Debt

Senior Revolving Credit Facility—Our \$2,500 million Senior Revolving Credit Facility which may be used for dollar and euro denominated borrowings, has a \$500 million sub-limit for dollar and euro denominated letters of credit, a \$1,000 million uncommitted accordion feature, and supports our commercial paper program. Borrowings under the facility bear interest at either a base rate or LIBOR rate, 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. At September 30, 2020, we had no borrowings or letters of credit outstanding and \$2,045 million of unused availability under this facility. See subsequent events below for additional information.

Guaranteed Notes due 2025, 2030 and 2050—In April 2020, LYB International Finance III, LLC (“LYB Finance III”), a wholly owned finance subsidiary of LyondellBasell Industries N.V., as defined in Rule 3-10(b) of Regulation S-X, issued \$500 million of 2.875% guaranteed notes due 2025 (the “2025 Notes”) at a discounted price of 99.911%, \$500 million of 3.375% guaranteed notes due 2030 (the “2030 Notes”) at a discounted price of 99.813% and \$1,000 million of 4.2% guaranteed notes due 2050 (the “2050 Notes”) at a discounted price of 99.373%. Net proceeds from the sale of the notes totaled \$1,974 million. We used the net proceeds from the sale of the notes for general corporate purposes, including to increase our liquidity and manage short-term debt maturities.

LYONDELLBASELL INDUSTRIES N.V.**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)**

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 III's and LyondellBasell Industries N.V.'s existing and future senior unsecured indebtedness and will rank senior in right of payment to any future subordinated indebtedness that LYB Finance III or LyondellBasell Industries N.V. incurs. There are no significant restrictions that would impede LyondellBasell Industries 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 2025 Notes, 2030 Notes and 2050 Notes may be redeemed before the date that is one month, three months, or six months, respectively, prior to the scheduled maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 40 basis points in the case of the 2025 Notes or 45 basis points in the case of the 2030 Notes and 2050 Notes) on the notes to be redeemed. The 2025 Notes, 2030 Notes and 2050 Notes may also be redeemed on or after the date that is one month, three months, or six months, respectively, 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. The notes are also redeemable upon certain tax events.

Short-Term Debt

U.S. Receivables Facility—Our U.S. Receivables Facility, which expires in July 2021, 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 ("Purchasers"). The sale of the undivided interest in the pool of trade receivables is accounted for as a secured borrowing in the Consolidated Balance Sheets. We are responsible for servicing the receivables. We pay variable interest rates on our secured borrowings. In the event of liquidation, the bankruptcy-remote subsidiary's assets will be used to satisfy the claims of the Purchasers prior to any assets or value in the bankruptcy-remote subsidiary becoming available to us. This facility also provides for the issuance of letters of credit up to \$200 million. The term of the facility may be extended in accordance with the terms of the agreement. The facility is also subject to customary warranties and covenants, including limits and reserves and the maintenance of specified financial ratios. Performance obligations under the facility are guaranteed by LyondellBasell Industries N.V. Additional fees are incurred for the average daily unused commitments. At September 30, 2020, we had no borrowings or letters of credit outstanding and \$646 million unused availability under this facility. See subsequent events below for additional information.

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"). Interest rates on the commercial paper outstanding at September 30, 2020 are based on the terms of the notes and range from 0.16% to 0.22%. At September 30, 2020, we had \$455 million of outstanding commercial paper.

Weighted Average Interest Rate—At September 30, 2020 and December 31, 2019, our weighted average interest rates on outstanding Short-term debt were 0.9% and 3.3%, respectively.

Additional Information

Debt Discount and Issuance Costs—Amortization of debt discounts and debt issuance costs resulted in amortization expense of \$12 million and \$7 million for the nine months ended September 30, 2020 and 2019, respectively, which is included in Interest expense in the Consolidated Statements of Income.

LYONDELLBASELL INDUSTRIES N.V.**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)**

Other Information—LYB International Finance B.V., LYB International Finance II B.V. and LYB International Finance III, LLC are 100% owned finance subsidiaries of LyondellBasell Industries N.V., as defined in Rule 3-10(b) of Regulation S-X. Any debt securities issued by LYB International Finance B.V., LYB International Finance II B.V. and LYB International Finance III, LLC are fully and unconditionally guaranteed by LyondellBasell Industries N.V.

In April 2020, we entered into amendments and related documents (collectively, the “Amendments”) to our Senior Revolving Credit Facility, Term Loan due 2022, and U.S. Receivables Facility (collectively, as amended, the “Credit Agreements”). The Amendments amended each Credit Agreement’s leverage ratio covenant to permit netting of unrestricted cash and cash equivalents in excess of \$300 million (with certain restrictions on non-US cash) and, in respect of the Senior Revolving Credit Facility and Term Loan due 2022, restrict certain dividends and other specified restricted payments.

As of September 30, 2020, we are in compliance with our debt covenants.

Subsequent Events

Credit Agreements— In October 2020, we entered into amendments and related documents (collectively, the “October Amendments”) to our Credit Agreements. Among other things, the October Amendments amended each Credit Agreement’s maximum leverage ratio (calculated as the ratio of total net funded debt to consolidated earnings before interest, taxes and depreciation and amortization, both as defined in our Credit Agreements) financial covenant to (i) 4.25 to 1.00 for the fiscal quarter ending December 31, 2020; (ii) 4.50 to 1.00 for the fiscal quarter ending March 31, 2021; (iii) 4.00 to 1.00 for the fiscal quarter ending June 30, 2021; (iv) 3.75 to 1.00 for the fiscal quarter ending September 30, 2021; and (v) 3.50 to 1.00 for the fiscal quarter ending December 31, 2021 and thereafter; provided, that, to the extent our recently announced Louisiana Joint Venture is consummated, the maximum leverage ratio financial covenant will automatically adjust to (i) 5.00 to 1.00 for the fiscal quarters ending December 31, 2020 and March 31, 2021; (ii) 4.75 to 1.00 for the fiscal quarter ending June 30, 2021; (iii) 4.50 to 1.00 for the fiscal quarters ending September 30, 2021 and December 31, 2021; (iv) 4.00 to 1.00 for the fiscal quarter ending March 30, 2022; (v) 3.50 to 1.00 for the fiscal quarter ending June 30, 2022 (or, if the Louisiana Joint Venture is consummated after December 31, 2020, 4.00 to 1.00); and (vi) 3.50 to 1.00 for the fiscal quarter ending September 30, 2022 and thereafter. In addition, with respect to the Senior Revolving Credit Facility and the Term Loan due 2022, the October Amendments further restrict certain dividends and other specified restricted payments.

In October 2020, we also further amended our Amended and Restated Credit Agreement (the “Amendment and Consent Agreement”) to extend the term of \$2,440 million of the \$2,500 million Senior Revolving Credit Facility for one year until June 2023, the remainder expires in June 2022. The Amendment and Consent Agreement also included customary LIBOR replacement language, which took effect in October 2020. All other material terms of the Credit Agreement remain unchanged.

Also in October 2020, LYB Finance III completed a number of financing activities as described below.

Guaranteed Floating Rate Notes due 2023—LYB Finance III issued \$650 million of guaranteed floating rate notes due 2023 (the “Floating Rate Notes”). The floating rate notes will bear interest equal to three-month LIBOR rate, plus 1.000% per annum. These notes may be redeemed on or after the date that is two years 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.

1.25% Guaranteed Notes due 2025—LYB Finance III issued \$500 million of 1.25% guaranteed notes due 2025 (the “1.25% 2025 Notes”) at a discounted price of 99.683%. These notes may be redeemed before the date that is one month prior to the scheduled maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 15 basis points) on the notes to be redeemed. These notes may also be redeemed on or after the date that is one month prior to the final 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.

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

2.25% Guaranteed Notes due 2030—LYB Finance III issued \$500 million of 2.25% guaranteed notes due 2030 (the “2.25% 2030 Notes”) at a discounted price of 99.203%. These 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 (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 25 basis points) on the notes to be redeemed. These notes may also be redeemed on or after the date that is three months prior to the final 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.

Guaranteed Notes due 2040—LYB Finance III issued \$750 million of 3.375% guaranteed notes due 2040 (the “2040 Notes”) at a discounted price of 99.77%. These notes may be redeemed before the date that is six months prior to the scheduled maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 30 basis points) on the notes to be redeemed. These notes may also be redeemed on or after the date that is six months prior to the final 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.

Guaranteed Notes due 2051—LYB Finance III issued \$1,000 million of 3.625% guaranteed notes due 2051 (the “2051 Notes”) at a discounted price of 99.707%. These notes may be redeemed before the date that is six months prior to the scheduled maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 35 basis points) on the notes to be redeemed. These notes may also be redeemed on or after the date that is six months prior to the final 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.

Guaranteed Notes due 2060—LYB Finance III issued \$500 million of 3.8% guaranteed notes due 2060 (the “2060 Notes”) at a discounted price of 99.166%. These notes may be redeemed before the date that is six months prior to the scheduled maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes redeemed and (ii) the sum of the present values of the remaining scheduled payments of principal and interest (discounted at the applicable treasury yield plus 35 basis points) on the notes to be redeemed. These notes may also be redeemed on or after the date that is six months prior to the final 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.

If the Louisiana Joint Venture transaction does not close on or prior to March 31, 2021, or is terminated on or prior to completion, we will be required to redeem all of the outstanding 1.25% 2025 Notes, 2.25% 2030 Notes and 2060 Notes at a redemption price equal to 101% of the aggregate principal amount plus accrued and unpaid interest for each of these notes. We may use net proceeds of this offering to fund such redemption.

The net proceeds of the Floating Rate Notes, 1.25% 2025 Notes, 2.25% 2030 Notes, 2040 Notes, 2051 Notes and 2060 Notes (collectively, the “October Notes”) was \$3,848 million. In October, we used \$500 million of the net proceeds to repay a portion of the indebtedness outstanding under our Term Loan due 2022. The remaining proceeds will be used in the fourth quarter to fund a portion of the purchase price for the Louisiana Joint Venture, redeem or repay up to \$1 billion aggregate principal amount of our 6.0% senior notes due 2021, and redeem or repay up to €750 million aggregate principal amount of our 1.875% guaranteed notes due 2022. Such redemption notices have been issued in October 2020. In conjunction with the redemption of these notes, we expect to pay an estimated \$116 million in related premiums, accrued interest and fees and expenses associated with such redemption or repayment of both notes. Additional non-cash charges of \$4 million for the write-off of unamortized debt discount and issuance costs and \$12 million for the write-off of the cumulative fair value hedge accounting adjustment are expected to be recognized in the fourth quarter related to the redeemed notes.

LYONDELLBASELL INDUSTRIES N.V.**NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)**

The October Notes are unsecured notes, which are fully and unconditionally guaranteed by LyondellBasell N.V., rank equally in right of payment to all of LYB Finance III'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 the October 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.

9. Financial Instruments and Fair Value Measurements

We are exposed to market risks, such as changes in commodity pricing, interest rates and currency exchange rates. To manage the volatility related to these exposures, we selectively enter into derivative contracts pursuant to our risk management policies.

A summary of our financial instruments, risk management policies, derivative instruments, hedging activities and fair value measurement can be found in Notes 2 and 15 to our Consolidated Financial Statements included in our Annual Report on Form 10-K for the year ended December 31, 2019. If applicable, updates have been included in the respective sections below.

Cash and Cash Equivalents—At September 30, 2020 and December 31, 2019, we had marketable securities classified as Cash and cash equivalents of \$1,191 million and \$389 million, respectively.

Foreign Currency Gain (Loss)—Other income, net, in the Consolidated Statements of Income reflected foreign currency gains of \$3 million and losses of \$4 million, and gains of \$2 million and \$16 million for the three and nine months ended September 30, 2020 and 2019, respectively.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Financial Instruments Measured at Fair Value on a Recurring Basis—The following table summarizes financial instruments outstanding for the periods presented that are measured at fair value on a recurring basis:

	September 30, 2020		December 31, 2019		
Millions of dollars	Notional Amount	Fair Value	Notional Amount	Fair Value	Balance Sheet Classification
Assets—					
Derivatives designated as hedges:					
Commodities	\$ 60	\$ 6	\$ —	\$ —	Prepaid expenses and other current assets
Foreign currency	358	44	—	27	Prepaid expenses and other current assets
Foreign currency	—	—	2,000	214	Other assets
Interest rates	—	2	—	22	Prepaid expenses and other current assets
Interest rates	263	3	1,940	41	Other assets
Derivatives not designated as hedges:					
Commodities	69	30	3	—	Prepaid expenses and other current assets
Foreign currency	311	4	580	5	Prepaid expenses and other current assets
Non-derivatives:					
Available-for-sale debt securities	359	361	162	162	Short-term investments
Equity securities	—	—	34	34	Short-term investments
Total	\$ 1,420	\$ 450	\$ 4,719	\$ 505	
Liabilities—					
Derivatives designated as hedges:					
Foreign currency	\$ —	\$ 33	\$ —	\$ 16	Accrued liabilities
Foreign currency	2,655	225	950	53	Other liabilities
Interest rates	—	—	1,000	154	Accrued liabilities
Interest rates	1,500	655	700	77	Other liabilities
Derivatives not designated as hedges:					
Commodities	125	16	224	34	Accrued liabilities
Foreign currency	400	2	200	1	Accrued liabilities
Total	\$ 4,680	\$ 931	\$ 3,074	\$ 335	

All financial instruments in the table above are classified as Level 2. We present the gross assets and liabilities of our derivative financial instruments on the Consolidated Balance Sheets.

At September 30, 2020, our outstanding foreign currency contracts, not designated as hedges, mature from October 2020 to June 2021. Our commodity contracts, not designated as hedges, mature from October 2020 to December 2020.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Financial Instruments Not Measured at Fair Value on a Recurring Basis—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 for the periods presented. Due to the short maturity, the fair value of all non-derivative financial instruments included in Current assets and Current liabilities for which the carrying value approximates fair value are excluded from the table below. 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 of long-term debt exclude commercial paper and other miscellaneous debt.

<u>Millions of dollars</u>	<u>September 30, 2020</u>		<u>December 31, 2019</u>	
	<u>Carrying Value</u>	<u>Fair Value</u>	<u>Carrying Value</u>	<u>Fair Value</u>
Non-derivatives:				
Liabilities:				
Short-term debt	\$ 138	\$ 147	\$ 181	\$ 215
Long-term debt	13,755	15,132	11,609	12,561
Total	<u>\$ 13,893</u>	<u>\$ 15,279</u>	<u>\$ 11,790</u>	<u>\$ 12,776</u>

All financial instruments in the table above are classified as Level 2.

Net Investment Hedges—The following table summarizes our net investment hedges outstanding for the periods presented:

<u>Millions of euro/dollars</u>	<u>September 30, 2020</u>				<u>December 31, 2019</u>				<u>Expiration Date</u>
	<u>Notional Value</u>				<u>Notional Value</u>				
			<u>Equivalent US\$</u>				<u>Equivalent US\$</u>		
Foreign currency	€	917	\$	1,008	€	617	\$	650	2021 to 2027
Foreign-currency denominated debt		750		878		750		842	2022

In September 2020, we entered into €300 million of foreign currency contracts that were designated as net investment hedges.

In October 2020, euro denominated debt due 2022 with notional amounts totaling €750 million previously designated as net investment hedge, were dedesignated. Concurrent with the dedesignation of the 2022 euro denominated debt, we entered into €750 million of cross currency interest rate swaps that were designated as net investment hedges. Also, in October 2020, we entered into €750 million of foreign currency contracts to economically hedge the redemption or repayment expected by November 2020 of up to €750 million aggregate principal amount of our 1.875% guaranteed notes due 2022. These foreign currency contracts were not designated as hedges.

Cash Flow Hedges—The following table summarizes our cash flow hedges outstanding for the periods presented:

<u>Millions of dollars</u>	<u>September 30, 2020</u>	<u>December 31, 2019</u>	<u>Expiration Date</u>
	<u>Notional Value</u>	<u>Notional Value</u>	
Foreign currency	\$ 2,005	\$ 2,300	2021 to 2027
Interest rates	1,500	1,500	2021 to 2024
Commodities	60	—	2021 to 2022

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

In January 2020, we amended previously existing forward-starting interest rate swaps with a total notional amount of \$1,000 million (the “Swaps”) to extend their maturities to July 2023 and April 2024. As of September 30, 2020, the Swaps were designated as cash flow hedges to mitigate the risk of variability in interest rates of future expected debt issuance by July 2023 and April 2024. Other assets as of September 30, 2020 includes \$238 million of collateral held with our counterparties related to our forward-starting interest rate swaps; this amount represents the maximum amount of collateral required in accordance with the Swap agreements. Related cash flows are included in financing activities in the Consolidated Statements of Cash Flows.

In May 2020, we terminated and cash settled \$2,000 million in notional value of our cross-currency interest rate swaps, designated as cash flows hedges, maturing in 2021 and 2024. Upon termination of the swaps, we received \$346 million from our counterparties. Concurrent with the settlement of the swaps, we entered into \$1,705 million cross-currency interest rate swaps with euro notional amounts and maturity dates matching the original swaps. The swaps are designated as cash flow hedges to reduce the variability in the functional currency equivalent cash flows of certain foreign currency denominated intercompany loans.

During the nine months ended September 30, 2020, we entered into over-the-counter commodity swaps with a total notional amount of \$60 million. During the third quarter of 2020, we also entered into costless collars, which are a combination of a purchased call option with an aggregate notional volume of 4 million MMBtu and a sold put option with an aggregate notional volume of 4 million MMBtu. These transactions were designated as cash flow hedges to manage the volatility of commodity prices related to anticipated purchases of feedstock for the years 2021 and 2022.

In October 2020, we terminated and cash settled \$500 million in notional value of our forward-starting interest rate swaps which were designated as cash flow hedges originally set to expire in 2021. Upon termination of the forward-starting interest rate swaps, we paid \$229 million to our counterparties.

As of September 30, 2020, on a pre-tax basis, \$6 million is scheduled to be reclassified from Accumulated other comprehensive loss as an increase to interest expense over the next twelve months.

Fair Value Hedges—The following table summarizes our fair value hedges outstanding for the periods presented:

<u>Millions of dollars</u>	<u>September 30, 2020</u>	<u>December 31, 2019</u>	<u>Expiration Date</u>
	<u>Notional Value</u>	<u>Notional Value</u>	
Interest rates	\$ 263	\$ 2,140	2022 to 2026

In January 2020, we entered into a euro fixed-for-floating interest rate swap to mitigate the change in the fair value of €100 million of our €500 million guaranteed notes due 2026 associated with the risk of variability in the 6-month EURIBOR rate, the benchmark interest rate. The fixed-rate and variable-rate components are settled annually and semi-annually, respectively.

In April 2020, we terminated \$2,000 million in notional value of our fixed-for-floating interest rate swaps which were designated as fair value hedges originally set to expire in 2021 and 2027. Upon termination of the fixed-for-floating interest rate swaps, we received \$147 million from our counterparties.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Impact on Earnings and Other Comprehensive Income—The following tables summarize the pre-tax effect of derivative and non-derivative instruments recorded in Accumulated other comprehensive loss (“AOCI”), the gains (losses) reclassified from AOCI to earnings and additional gains (losses) recognized directly in earnings:

<u>Millions of dollars</u>	Effects of Financial Instruments								Income Statement Classification
	Three Months Ended September 30,								
	Gain (Loss) Recognized in AOCI		Gain (Loss) Reclassified from AOCI to Income		Gain (Loss) Recognized in Income				
	2020	2019	2020	2019	2020	2019			
Derivatives designated as hedges:									
Commodities	\$ —	\$ 7	\$ —	\$ (10)	\$ —	\$ —			Sales and other operating revenues
Commodities	8	(10)	—	8	—	—			Cost of sales
Foreign currency	(125)	141	89	(86)	8	18			Interest expense
Interest rates	102	(163)	1	(1)	1	23			Interest expense
Derivatives not designated as hedges:									
Commodities	—	—	—	—	(1)	(1)			Sales and other operating revenues
Commodities	—	—	—	—	42	1			Cost of sales
Foreign currency	—	—	—	—	(1)	14			Other income, net
Non-derivatives designated as hedges:									
Long-term debt	(38)	35	—	—	—	—			Other income, net
Total	\$ (53)	\$ 10	\$ 90	\$ (89)	\$ 49	\$ 55			

<u>Millions of dollars</u>	Effects of Financial Instruments						Income Statement Classification
	Nine Months Ended September 30,						
	Gain (Loss) Recognized in AOCI		Gain (Loss) Reclassified from AOCI to Income		Gain (Loss) Recognized in Income		
	2020	2019	2020	2019	2020	2019	
Derivatives designated as hedges:							
Commodities	\$ —	\$ (34)	\$ —	\$ (18)	\$ —	\$ —	Sales and other operating revenues
Commodities	6	28	—	12	—	—	Cost of sales
Foreign currency	(47)	192	81	(99)	38	50	Interest expense
Interest rates	(430)	(342)	3	(5)	91	96	Interest expense
Derivatives not designated as hedges:							
Commodities	—	—	—	—	4	2	Sales and other operating revenues
Commodities	—	—	—	—	116	(18)	Cost of sales
Foreign currency	—	—	—	—	(11)	30	Other income, net
Non-derivatives designated as hedges:							
Long-term debt	(36)	40	—	—	—	—	Other income, net
Total	\$ (507)	\$ (116)	\$ 84	\$ (110)	\$ 238	\$ 160	

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

The derivative amounts excluded from the assessment of effectiveness for foreign currency contracts designated as net investment hedges recognized in other comprehensive income for the three and nine months ended September 30, 2020 were gains of \$1 million and losses of less than \$1 million, and for the three and nine months ended September 30, 2019 were gains of \$3 million and less than \$1 million, respectively.

The derivative amounts excluded from the assessment of effectiveness for foreign currency contracts designated as net investment hedges recognized in interest expense for the three and nine months ended September 30, 2020 were gains of \$1 million and \$8 million, respectively, and for the three and nine months ended September 30, 2019 were gains of \$5 million and \$15 million, respectively.

The pre-tax effect of the periodic receipt of fixed interest and payment of variable interest associated with our fixed-for-floating interest rate swaps resulted in less than \$1 million and \$3 million decrease in interest expense during the three and nine months ended September 30, 2020, respectively, and \$1 million and \$7 million increase in interest expense during the three and nine months ended September 30, 2019, respectively.

Investments in Available-for-Sale Debt Securities—The following table summarizes the amortized cost, gross unrealized gains and losses, and fair value of our outstanding available-for-sale debt securities:

<u>Millions of dollars</u>	<u>Cost</u>	<u>Gross Unrealized Gains</u>	<u>Gross Unrealized Losses</u>	<u>Fair Value</u>
Debt securities at September 30, 2020	\$ 359	\$ 2	\$ —	\$ 361
Debt securities at December 31, 2019	162	—	—	162

No allowance for credit losses related to our available-for-sale debt securities was recorded for the nine months ended September 30, 2020 or for the year ended December 31, 2019.

As of September 30, 2020, bonds classified as available-for-sale debt securities had maturities between 1 month and 9 months.

The proceeds from maturities and sales of our available-for-sale-debt securities during the three and nine months ended September 30, 2020 and 2019 are summarized in the following table:

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Proceeds from maturities of available-for-sale debt securities	\$ —	\$ —	\$ —	\$ 331
Proceeds from sales of available-for-sale debt securities	90	—	90	180

No gain or loss was realized in connection with the sales of our available-for-sale debt securities during the three and nine months ended September 30, 2020. The gross realized gains and losses associated with the sale of available-for-sale debt securities during the three and nine months ended September 30, 2019 were less than \$1 million in each respective period.

We had no available-for-sale debt securities which were in a continuous unrealized loss position for less than or greater than twelve months as of September 30, 2020 and December 31, 2019.

Investments in Equity Securities—Our investment in equity securities primarily consisted of limited partnership investments. At September 30, 2020, we had no outstanding investment in equity securities. At December 31, 2019, we had investments in equity securities with a notional amount and a fair value of \$34 million.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

We received proceeds of \$313 million and \$332 million related to the sale of our investments in equity securities during the nine months ended September 30, 2020 and 2019, respectively. We received proceeds of \$312 million related to the sale of our investments in equity securities during the three months ended September 30, 2020. No proceeds related to the sale of investments in equity securities were received during the three months ended September 30, 2019.

The following table summarizes the portion of unrealized gains and losses for the equity securities that are outstanding for the periods presented:

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Net gains recognized during the period	\$ —	\$ —	\$ —	\$ 6
Less: Net gains recognized during the period on securities sold	—	—	—	9
Unrealized losses recognized during the period	\$ —	\$ —	\$ —	\$ (3)

10. Income Taxes

For interim tax reporting, we estimate an annual effective tax rate which is applied to the year-to-date ordinary income/(loss). Tax effects of significant unusual or infrequently occurring items are excluded from the estimated annual effective tax rate calculation and recognized in the interim period in which they occur. Our effective income tax rate fluctuates based on, among other factors, changes in pre-tax income in countries with varying statutory tax rates, changes in valuation allowances, changes in foreign exchange gains/losses, the amount of exempt income, changes in unrecognized tax benefits associated with uncertain tax positions, and changes in tax laws.

Our effective income tax rate for the three months ended September 30, 2020 was 1,136.4% compared with 12.3% for the three months ended September 30, 2019. In the third quarter of 2020, we recognized a tax benefit of \$125 million, primarily from a non-cash impairment, resulting in a tax rate of 1,136.4% on our \$11 million pre-tax loss.

Our effective income tax rate for the nine months ended September 30, 2020 was -16.7% compared with 15.4% for the nine months ended September 30, 2019. The lower effective tax rate for the nine months ended September 30, 2020 was primarily attributable to lower earnings largely from a non-cash impairment. This decreased pre-tax earnings increased the relative impact of our tax rate drivers, primarily exempt income and to a lesser extent a tax benefit in relation to the CARES Act.

On March 27, 2020, the U.S. enacted the Coronavirus Aid, Relief, and Economic Security Act, also known as the “CARES Act,” which contains numerous income tax provisions and other stimulus measures. We anticipate that several of the tax measures will favorably impact our income tax on our Consolidated Financial Statements for the year ended December 31, 2020. Based on our analysis as of September 30, 2020, we recorded an overall tax benefit including the impact of an expected net operating loss carry-back. We continue to assess the impact that the CARES Act will have on our Company.

11. Commitments and Contingencies

Commitments—We have various purchase commitments for materials, supplies and services incidental to the ordinary conduct of business, generally for quantities required for our businesses and at prevailing market prices. These commitments are designed to assure sources of supply and are not expected to be in excess of normal requirements. As of September 30, 2020, we had capital expenditure commitments, which we incurred in our normal course of business, including commitments of approximately \$376 million related to building our new PO/TBA plant in Houston, Texas.

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

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 \$130 million and \$132 million as of September 30, 2020 and December 31, 2019, respectively. At September 30, 2020, 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 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.

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 September 30, 2020, 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 5 to 10 years.

Legal Proceedings—We are subject to various lawsuits and claims, including but not limited to, matters involving contract disputes, environmental damages, personal injury and property damage. We vigorously defend ourselves and prosecute these matters as appropriate.

Our legal organization applies its knowledge, experience and professional judgment to the specific characteristics of our cases, employing a litigation management process to manage and monitor legal proceedings in which we are a party. Our process facilitates the early evaluation and quantification of potential exposures in individual cases. This process also enables us to track those cases that have been scheduled for trial, mediation or other resolution. We regularly assesses the adequacy of legal accruals based on our professional judgment, experience and the information available regarding our cases.

Based on a consideration of all relevant facts and circumstances, we do not believe the ultimate outcome of any currently pending lawsuit against us will have a material adverse effect upon our operations, financial condition or Consolidated Financial Statements.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

12. Shareholders' Equity and Redeemable Non-controlling Interests

Shareholders' 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 2020	\$ 1.05	\$ 351	March 2, 2020
June 2020	1.05	350	June 8, 2020
September 2020	1.05	352	August 31, 2020
	<u>\$ 3.15</u>	<u>\$ 1,053</u>	

Share Repurchase Authorization—In May 2020, our shareholders approved a proposal to authorize us to repurchase up to 34.0 million ordinary shares, through November 29, 2021 ("May 2020 Share Repurchase Authorization"), which superseded any prior repurchase authorizations. The timing and amount of these repurchases, which are determined based on our evaluation of market conditions and other factors, may be executed from time to time through open market or privately negotiated transactions. The repurchased shares, which are recorded at cost, are classified as Treasury stock and may be retired or used for general corporate purposes, including for various employee benefit and compensation plans.

Upon completion of the tender offer in July 2019, we repurchased 35.1 million ordinary shares for a total of \$3,099 million, including \$6 million of fees and expenses related to the tender offer, under our May 2019 Share Repurchase Authorization.

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

Millions of dollars, except shares and per share amounts	Shares Repurchased	Average Purchase Price	Total Purchase Price, Including Commissions and Fees
For nine months ended September 30, 2020:			
September 2019 Share Repurchase Authorization	50,685	\$ 78.93	\$ 4
May 2020 Share Repurchase Authorization	—	—	—
	<u>50,685</u>	<u>\$ 78.93</u>	<u>\$ 4</u>
For nine months ended September 30, 2019:			
June 2018 Share Repurchase Authorization	5,648,900	\$ 86.38	\$ 488
May 2019 Share Repurchase Authorization	37,032,594	87.50	3,240
	<u>42,681,494</u>	<u>\$ 87.35</u>	<u>\$ 3,728</u>

Due to the timing of settlements, total cash paid for share repurchases for the nine months ended September 30, 2020 and 2019 was \$4 million and \$3,752 million, respectively.

LYONDELLBASELL INDUSTRIES N.V.
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

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

	Nine Months Ended September 30,	
	2020	2019
Ordinary shares outstanding:		
Beginning balance	333,476,883	375,696,661
Share-based compensation	246,640	268,851
Employee stock purchase plan	245,521	123,869
Purchase of ordinary shares	(50,685)	(42,681,505)
Ending balance	333,918,359	333,407,876

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

	Nine Months Ended September 30,	
	2020	2019
Ordinary shares held as treasury shares:		
Beginning balance	6,568,745	24,513,619
Share-based compensation	(246,640)	(268,851)
Employee stock purchase plan	(245,521)	(123,869)
Purchase of ordinary shares	50,685	42,681,505
Ending balance	6,127,269	66,802,404

Accumulated Other Comprehensive Loss—The components of, and after-tax changes in, Accumulated other comprehensive loss as of and for the nine months ended September 30, 2020 and 2019 are presented in the following tables:

Millions of dollars	Financial Derivatives	Unrealized Gains on Available -for-Sale Debt Securities	Defined Benefit Pension and Other Postretirement Benefit Plans	Foreign Currency Translation Adjustments	Total
Balance – January 1, 2020	\$ (200)	\$ —	\$ (711)	\$ (873)	\$ (1,784)
Other comprehensive income (loss) before reclassifications	(447)	1	—	(53)	(499)
Tax (expense) benefit before reclassifications	93	—	—	6	99
Amounts reclassified from accumulated other comprehensive loss	84	—	42	—	126
Tax (expense) benefit	(19)	—	(11)	—	(30)
Net other comprehensive income (loss)	(289)	1	31	(47)	(304)
Balance – September 30, 2020	\$ (489)	\$ 1	\$ (680)	\$ (920)	\$ (2,088)

LYONDELLBASELL INDUSTRIES N.V.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Millions of dollars	Financial Derivatives	Unrealized Gains on Available -for-Sale Debt Securities	Defined Benefit Pension and Other Postretirement Benefit Plans	Foreign Currency Translation Adjustments	Total
Balance – January 1, 2019	\$ (68)	\$ —	\$ (442)	\$ (853)	\$ (1,363)
Other comprehensive income (loss) before reclassifications	(184)	1	—	(92)	(275)
Tax (expense) benefit before reclassifications	36	—	—	(14)	22
Amounts reclassified from accumulated other comprehensive loss	(110)	—	20	—	(90)
Tax (expense) benefit	28	—	(5)	—	23
Net other comprehensive income (loss)	(230)	1	15	(106)	(320)
Balance – September 30, 2019	<u>\$ (298)</u>	<u>\$ 1</u>	<u>\$ (427)</u>	<u>\$ (959)</u>	<u>\$ (1,683)</u>

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

Millions of dollars	Three Months Ended September 30,		Nine Months Ended September 30,		Affected Line Item on the Consolidated Statements of Income
	2020	2019	2020	2019	
Reclassification adjustments for:					
Financial derivatives:					
Foreign currency	\$ 89	\$ (86)	\$ 81	\$ (99)	Other income, net
Commodities	—	(10)	—	(18)	Sales and other operating revenue
Commodities	—	8	—	12	Cost of sales
Interest rates	1	(1)	3	(5)	Interest expense
Income tax expense (benefit)	22	(25)	19	(28)	Provision for income taxes
Financial derivatives, net of tax	68	(64)	65	(82)	
Amortization of defined pension items:					
Prior service cost	1	—	3	1	Other income, net
Actuarial loss	13	6	39	19	Other income, net
Income tax expense (benefit)	4	1	11	5	Provision for income taxes
Defined pension items, net of tax	10	5	31	15	
Total reclassifications, before tax	104	(83)	126	(90)	
Income tax expense (benefit)	26	(24)	30	(23)	Provision for income taxes
Total reclassifications, after tax	<u>\$ 78</u>	<u>\$ (59)</u>	<u>\$ 96</u>	<u>\$ (67)</u>	Amount included in net income

Non-controlling Interest—In February 2019, we increased our interest in our subsidiary La Porte Methanol Company, L.P., from 85% to 100%, for cash consideration of \$63 million.

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)
Redeemable Non-controlling Interests

Our redeemable non-controlling interests relate to shares of cumulative perpetual special stock (“redeemable non-controlling interest stock”) issued by our consolidated subsidiary, formerly known as A. Schulman. As of September 30, 2020 and December 31, 2019, we had 115,374 shares of redeemable non-controlling interest stock outstanding.

In February, May and August 2020, we paid cash dividends of \$15.00 per share to our redeemable non-controlling interest shareholders of record as of January 15, 2020, April 15, 2020, and July 15, 2020, respectively. These dividends totaled \$5 million for each of the nine months ended September 30, 2020 and 2019.

13. Per Share Data

Basic earnings per share are 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 September 30,			
	2020		2019	
	Continuing Operations	Discontinued Operations	Continuing Operations	Discontinued Operations
Millions of dollars				
Net income (loss)	\$ 114	\$ —	\$ 969	\$ (4)
Dividends on redeemable non-controlling interests	(2)	—	(2)	—
Net (income) loss attributable to participating securities	(1)	—	(2)	—
Net income (loss) attributable to ordinary shareholders – basic and diluted	<u>\$ 111</u>	<u>\$ —</u>	<u>\$ 965</u>	<u>\$ (4)</u>
Millions of shares, except per share amounts				
Basic weighted average common stock outstanding	334	334	337	337
Effect of dilutive securities	—	—	—	—
Potential dilutive shares	<u>334</u>	<u>334</u>	<u>337</u>	<u>337</u>
Earnings (loss) per share:				
Basic	<u>\$ 0.33</u>	<u>\$ —</u>	<u>\$ 2.86</u>	<u>\$ (0.01)</u>
Diluted	<u>\$ 0.33</u>	<u>\$ —</u>	<u>\$ 2.86</u>	<u>\$ (0.01)</u>

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

	Nine Months Ended September 30,			
	2020		2019	
	Continuing Operations	Discontinued Operations	Continuing Operations	Discontinued Operations
Millions of dollars				
Net income (loss)	\$ 572	\$ —	\$ 2,792	\$ (7)
Dividends on redeemable non-controlling interests	(5)	—	(5)	—
Net (income) loss attributable to participating securities	(2)	—	(5)	—
Net income (loss) attributable to ordinary shareholders – basic and diluted	<u>\$ 565</u>	<u>\$ —</u>	<u>\$ 2,782</u>	<u>\$ (7)</u>
Millions of shares, except per share amounts				
Basic weighted average common stock outstanding	334	334	360	360
Effect of dilutive securities	—	—	—	—
Potential dilutive shares	<u>334</u>	<u>334</u>	<u>360</u>	<u>360</u>
Earnings (loss) per share:				
Basic	<u>\$ 1.69</u>	<u>\$ —</u>	<u>\$ 7.74</u>	<u>\$ (0.02)</u>
Diluted	<u>\$ 1.69</u>	<u>\$ —</u>	<u>\$ 7.74</u>	<u>\$ (0.02)</u>

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)
14. Segment and Related Information

Our operations are managed by senior executives who report 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.
- *Intermediates and Derivatives* (“I&D”). Our I&D segment produces and markets propylene oxide and its derivatives, oxyfuels and related products, and intermediate chemicals such as styrene monomer, acetyls, ethylene oxide and ethylene glycol.
- *Advanced Polymer Solutions* (“APS”). Our APS segment produces and markets compounding and solutions, such as polypropylene compounds, engineered plastics, masterbatches, engineered composites, colors and powders, and advanced polymers, which includes *Catalloy* and polybutene-1.
- *Refining*. Our Refining segment refines heavy, high-sulfur crude oil 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 profitability of our segments, and therefore, we have presented EBITDA for all segments. We define EBITDA as earnings before interest, income taxes, and depreciation and amortization.

“Other” includes intersegment eliminations and items that are not directly related or allocated to business operations, such as foreign exchange gains or losses and components of pension and other postretirement benefit costs other than service costs. Sales between segments are made primarily at prices approximating prevailing market prices.

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

Millions of dollars	Three Months Ended September 30, 2020							
	O&P—Americas	O&P—EAI	I&D	APS	Refining	Technology	Other	Total
Sales and other operating revenues:								
Customers	\$ 1,268	\$ 1,837	\$ 1,498	\$ 1,003	\$ 1,003	\$ 167	\$ —	\$ 6,776
Intersegment	572	145	40	1	98	26	(882)	—
	1,840	1,982	1,538	1,004	1,101	193	(882)	6,776
Income from equity investments	15	40	7	—	—	—	—	62
EBITDA	474	148	267	157	(692)	111	1	466

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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS-(Continued)

Three Months Ended September 30, 2019								
Millions of dollars	O&P–Americas	O&P–EAI	I&D	APS	Refining	Technology	Other	Total
Sales and other operating revenues:								
Customers	\$ 1,337	\$ 2,138	\$ 1,988	\$ 1,186	\$ 1,952	\$ 121	\$ —	\$ 8,722
Intersegment	800	171	58	—	182	25	(1,236)	—
	2,137	2,309	2,046	1,186	2,134	146	(1,236)	8,722
Income from equity investments	12	36	1	2	—	—	—	51
EBITDA	653	291	390	102	(6)	83	—	1,513

Nine Months Ended September 30, 2020								
Millions of dollars	O&P–Americas	O&P–EAI	I&D	APS	Refining	Technology	Other	Total
Sales and other operating revenues:								
Customers	\$ 3,514	\$ 5,543	\$ 4,370	\$ 2,796	\$ 3,193	\$ 400	\$ —	\$ 19,816
Intersegment	1,551	365	95	9	275	92	(2,387)	—
	5,065	5,908	4,465	2,805	3,468	492	(2,387)	19,816
Income (loss) from equity investments	24	88	12	(1)	—	—	—	123
EBITDA	1,088	522	571	226	(799)	279	(15)	1,872

Nine Months Ended September 30, 2019								
Millions of dollars	O&P–Americas	O&P–EAI	I&D	APS	Refining	Technology	Other	Total
Sales and other operating revenues:								
Customers	\$ 4,055	\$ 6,764	\$ 5,860	\$ 3,781	\$ 5,706	\$ 382	\$ —	\$ 26,548
Intersegment	2,307	585	142	2	490	78	(3,604)	—
	6,362	7,349	6,002	3,783	6,196	460	(3,604)	26,548
Income from equity investments	35	139	5	—	—	—	—	179
EBITDA	1,804	918	1,228	370	(87)	273	14	4,520

Operating results for our O&P–Americas segment include an LCM inventory valuation charge of \$3 million during the first nine months of 2020, primarily driven by declines in the prices of polymers. During the third quarter of 2020, operating results for our O&P–Americas segment include an LCM inventory valuation benefit of \$70 million largely driven by recovery of market prices of ethylene and polymers.

Operating results for our O&P–Americas segment also include a LIFO inventory charge of \$61 million for the third quarter and first nine months of 2020.

Operating results for our O&P–EAI segment include an LCM inventory valuation charge of \$53 million during the first nine months of 2020, primarily driven by declines in the prices of naphtha and polymers. During the third quarter of 2020, operating results for our O&P–EAI segment include an LCM inventory valuation benefit of \$17 million, largely due to recovery of market prices of naphtha and polymers.

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Operating results for our I&D segment include an LCM inventory valuation charge of \$76 million during the first nine months of 2020 driven by declines in the prices of various gasoline blending components, benzene and styrene. During the third quarter of 2020, operating results for our I&D segment include an LCM inventory valuation benefit of \$22 million largely due to recovery of prices for gas blending components.

Operating results for our APS segment include an LCM inventory valuation charge of \$29 million during the first nine months of 2020 driven by a decline in the price of polymers. During the third quarter of 2020, operating results for our APS segment include an LCM inventory valuation benefit of \$40 million driven by a recovery in prices of polymers.

Our APS segment results include integration costs associated with our 2018 acquisition of A. Schulman for the third quarter of 2020 and 2019 of \$7 million and \$43 million, respectively, and for the first nine months of 2020 and 2019 of \$37 million and \$78 million, respectively.

Operating results for our Refining segment include an LCM inventory valuation charge of \$2 million during the first nine months of 2020, primarily driven by declines in the prices of refined products. During the third quarter of 2020, operating results for our Refining segment include an LCM inventory valuation benefit of \$11 million primarily due to the recovery of market prices of refined products.

Results for our Refining segment also include a non-cash impairment charge of \$582 million which was recognized during the third quarter of 2020 as we expect that prolonged reduction of travel and associated transportation fuels consumption resulting from the pandemic has created length in global fuel markets that will pressure refining profitability for an extended period of time. In addition, the refinery is expected to continue to be adversely affected by lower discounts for the heavy crude oil feedstocks that we utilize.

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

Millions of dollars	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
EBITDA:				
Total segment EBITDA	\$ 465	\$ 1,513	\$ 1,887	\$ 4,506
Other EBITDA	1	—	(15)	14
Less:				
Depreciation and amortization expense	(358)	(327)	(1,056)	(977)
Interest expense	(122)	(86)	(336)	(259)
Add:				
Interest income	3	5	10	16
(Loss) income from continuing operations before income taxes	\$ (11)	\$ 1,105	\$ 490	\$ 3,300

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

GENERAL

This discussion should be read in conjunction with the information contained in our Consolidated Financial Statements, and the accompanying notes elsewhere in this report. Unless otherwise indicated, the “Company,” “we,” “us,” “our” or similar words are used to refer to LyondellBasell Industries N.V. together with its consolidated subsidiaries (“LyondellBasell N.V.”).

OVERVIEW

In the third quarter, demand for our products improved with increasing global economic activity. Our year over year results reflect strong global volumes while margins are still recovering. Sequentially, third quarter volumes and margins rebounded for most of our businesses. We expect that prolonged reduction of travel and associated transportation fuels consumption resulting from the pandemic has created length in global fuel markets that will pressure refining profitability for an extended period of time. In addition, our refinery is expected to continue to be adversely affected by lower discounts for the heavy crude oil feedstocks that we utilize. Accordingly, our Refining segment recognized a non-cash impairment charge in the third quarter of 2020 of \$582 million.

During the first nine months of 2020, we recognized a lower of cost or market (“LCM”) inventory valuation charge of \$163 million related to the decline in pricing for many of our raw material and finished goods inventories largely driven by the current economic conditions. Results for our third quarter of 2020 include an LCM inventory valuation benefit of \$160 million largely driven by the recovery of market pricing for many of our raw material and finished goods inventories since June 30, 2020. Further sustained price declines in our finished goods and raw materials could result in future LCM inventory valuation charges during the remainder of 2020. The extent to which further charges may occur is dependent on the pool-specific product prices and composition within each individual dollar value LIFO pool at the balance sheet date. However, if pricing trends improve, some or all of these charges could be reversed in the fourth quarter of 2020. Our actions in the second quarter of 2020 to manage inventory and maximize liquidity positioned us well for a recovering economy in the third quarter of 2020.

Events surrounding the ongoing COVID-19 pandemic continue to evolve and impact global markets and demand for our products. We remain committed to the health and safety of our employees, contractors and communities and are following governmental policies and recommendations related to the virus. Our manufacturing operations have been designated as an essential industry to support society’s needs during the pandemic in the majority of the regions in which we operate.

Significant items that affected our results during the third quarter and first nine months of 2020 relative to the third quarter and first nine months of 2019 include:

- O&P–Americas and O&P–EAI results declined primarily due to a decline in olefin and polyolefins margins;
- I&D segment results declined due to margin decreases primarily driven by our intermediate chemicals and oxyfuels and related products businesses; and
- Refining segment results declined due to lower refining margins and a \$582 million non-cash impairment charge which was recognized during the third quarter of 2020.

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

- Launched production at our U.S. Gulf Coast high-density polyethylene plant using LyondellBasell's next-generation *Hyperzone* technology;
- In April 2020, issued \$2,000 million of guaranteed senior notes to bolster liquidity. Net proceeds from the sale of the notes totaled \$1,974 million;

- In April 2020, repaid \$500 million outstanding under our Senior Revolving Credit Facility and \$500 million outstanding under our U.S. Receivables Facility;
- Invested \$472 million in our new 50/50 joint venture polyolefin complex in China with Liaoning Bora Enterprise Group using our polyolefin technologies;
- In October 2020, entered into a membership interest purchase agreement with Sasol Chemicals (USA) LLC to purchase a 50 percent interest in a newly formed joint venture, Louisiana Integrated PolyEthylene JV LLC (“Louisiana Joint Venture”), for a total cash consideration of \$2 billion;
- In October 2020, issued \$3,900 million of Guaranteed Notes to be used to repay certain outstanding borrowings and fund a portion of the Louisiana Joint Venture purchase. Net proceeds from the sale of the notes totaled \$3,848 million; and
- In October 2020, repaid \$500 million outstanding under our Term Loan due 2022 and issued a notice to redeem all amounts outstanding on our Senior Notes due 2021 and Guaranteed Notes due 2022.

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

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues	\$ 6,776	\$ 8,722	\$ 19,816	\$ 26,548
Cost of sales	5,885	7,269	17,647	22,257
Impairment of long-lived assets	582	—	582	—
Selling, general and administrative expenses	259	303	842	892
Research and development expenses	27	26	79	81
Operating income	23	1,124	666	3,318
Interest expense	(122)	(86)	(336)	(259)
Interest income	3	5	10	16
Other income, net	23	11	27	46
Income from equity investments	62	51	123	179
(Loss) income from continuing operations before income taxes	(11)	1,105	490	3,300
(Benefit from) provision for income taxes	(125)	136	(82)	508
Income from continuing operations	114	969	572	2,792
Loss from discontinued operations, net of tax	—	(4)	—	(7)
Net income	<u>\$ 114</u>	<u>\$ 965</u>	<u>\$ 572</u>	<u>\$ 2,785</u>

RESULTS OF OPERATIONS

Revenues—Revenues decreased by \$1,946 million, or 22%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$6,732 million, or 25%, in the first nine months of 2020 compared to the first nine months of 2019. Average sales prices in the third quarter and the first nine months of 2020 were lower for most of our products as sales prices generally correlate with crude oil prices, which decreased relative to the corresponding periods in 2019. These lower prices led to a 19% and 21% decrease in revenue in the third quarter and the first nine months of 2020, respectively. Lower sales volumes resulted in a revenue decrease of 5% and 4% relative to the third quarter and first nine months of 2019, respectively. Favorable foreign exchange impacts resulted in a revenue increase of 2% during the third quarter of 2020.

Cost of Sales—Cost of sales decreased by \$1,384 million, or 19%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$4,610 million, or 21%, in the first nine months of 2020 compared to the first nine months of 2019. This decrease primarily related to lower feedstock and energy costs.

In the first nine months of 2020, we recognized an LCM inventory valuation charge of \$163 million related to the decline in market pricing for many of our raw material and finished goods inventories since December 31, 2019. During the third quarter of 2020, we recognized an LCM inventory valuation benefit of \$160 million largely driven by the recovery of market pricing for many of our raw material and finished goods inventories during the quarter.

Impairment of Long-Lived Assets—We expect that prolonged reduction of travel and associated transportation fuels consumption resulting from the pandemic has created length in global fuel markets that will pressure refining profitability for an extended period of time. In addition, the refinery is expected to continue to be adversely affected by lower discounts for the heavy crude oil feedstocks that we utilize. Accordingly, in the third quarter of 2020 our Refining segment recognized a non-cash impairment charge of \$582 million related to our Houston refinery.

Operating Income—Operating income decreased by \$1,101 million, or 98%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$2,652 million, or 80%, in the first nine months of 2020 compared to the first nine months of 2019. Operating income includes the effects of LCM inventory valuation charges and the non-cash impairment charge in our Refinery segment as noted above.

In the third quarter of 2020, operating income in our Refining, O&P–Americas, O&P–EAI and I&D segments declined by \$681 million, \$215 million, \$150 million and \$134 million, respectively, relative to the third quarter of 2019. The declines were partially offset by increases of \$49 million and \$28 million in our APS and Technology segments in the third quarter of 2020 compared to the third quarter of 2019.

In the first nine months of 2020, operating income declined across most of our segments, including \$758 million, \$710 million, \$665 million, \$346 million and \$174 million declines in our O&P–Americas, Refining, I&D, O&P–EAI and APS segments, respectively, compared to the first nine months of 2019. The declines were partially offset by an increase of \$10 million in our Technology segment in the first nine months of 2020 compared to the first nine months of 2019.

Income from Equity Investments—Income from our equity investments decreased \$56 million, or 31%, in the first nine months of 2020 compared to the first nine months of 2019. The decline in the first nine months of 2020 compared to the first nine months of 2019 was largely as a result of lower sales prices and reduced polyolefin spreads for our joint ventures in our O&P–EAI and O&P–Americas segments.

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

Income Taxes—For interim tax reporting, we estimate an annual effective tax rate which is applied to the year-to-date ordinary income/(loss). Tax effects of significant unusual or infrequently occurring items are excluded from the estimated annual effective tax rate calculation and recognized in the interim period in which they occur. Our effective income tax rate fluctuates based on, among other factors, changes in pre-tax income in countries with varying statutory tax rates, changes in valuation allowances, changes in foreign exchange gains/losses, the amount of exempt income, changes in unrecognized tax benefits associated with uncertain tax positions and changes in tax laws.

Our effective income tax rate for the three months ended September 30, 2020 was 1,136.4% compared with 12.3% for the three months ended September 30, 2019. In the third quarter of 2020, we recognized a tax benefit of \$125 million, primarily from a non-cash impairment, resulting in a tax rate of 1,136.4% on our \$11 million pre-tax loss.

Our effective income tax rate for the nine months ended September 30, 2020 was -16.7% compared with 15.4% for the nine months ended September 30, 2019. The lower effective tax rate for the nine months ended September 30, 2020 was primarily attributable to lower earnings largely from a non-cash impairment. This decreased pre-tax earnings increased the relative impact of our tax rate drivers, primarily exempt income (-28%) and to a lesser extent a tax benefit in relation to the CARES Act (-4%).

On March 27, 2020, the U.S. enacted the Coronavirus Aid, Relief, and Economic Security Act, also known as the “CARES Act,” which contains numerous income tax provisions and other stimulus measures. We anticipate that several of the tax measures will favorably impact our income tax on our Consolidated Financial Statements for the year ended December 31, 2020. Based on our analysis as of September 30, 2020, we recorded an overall tax benefit including the impact of an expected net operating loss carryback. We continue to assess the impact that the CARES Act will have on our Company.

We now believe that our effective tax rate for 2020 will be significantly lower than our previous estimate of less than mid-teens and due to uncertainty regarding the impact of the CARES Act and the timing of certain discrete events, we will not be providing updated guidance at this time.

Our exempt income primarily includes interest income, export incentives, and equity earnings of joint ventures. Interest income earned by certain of our European subsidiaries through intercompany financings is taxed at rates substantially lower than the U.S. statutory rate. Export incentives relate to tax benefits derived from elections and structures available for U.S. exports. Equity earnings attributable to the earnings of our joint ventures, when paid through dividends to certain European subsidiaries, are exempt from all or portions of normal statutory income tax rates. We currently anticipate the favorable treatment for interest income, dividends, and export incentives to continue in the near term; however, this treatment is based on current law and tax rulings, which could change.

The Company operates in multiple jurisdictions with complex legal and tax regulatory environments and our tax returns are periodically audited or subjected to review by tax authorities. There continues to be increased attention to the tax practices of multinational companies, the European Union’s state aid investigations, proposals by the Organization for Economic Cooperation and Development with respect to base erosion and profit shifting, and European Union tax directives and their implementation. Management does not believe that recent changes in income tax laws, other than those disclosed and reflected in our financial statements, 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 decreased by \$459 million in the third quarter of 2020 compared to the third quarter of 2019 and by \$2,197 million in the first nine months of 2020 compared to the first nine months of 2019, primarily due to lower net income partially offset by foreign currency translation adjustment. In the third quarter of 2020, these decreases were partially offset by the favorable impacts of financial derivative instruments driven by periodic changes in benchmark interest rates and the dollar to euro exchange rate. In the first nine months of 2020, these decreases were supplemented by the cumulative unfavorable impacts of financial derivative instruments driven by periodic changes in benchmark interest rates and the dollar to euro exchange rate.

In the third quarter and first nine months of 2020, the cumulative after-tax effects of our derivatives designated as cash flow hedges were net gains of \$75 million and net losses of \$289 million, respectively. Pre-tax gains of \$102 million and pre-tax losses of \$430 million related to forward-starting interest rate swaps were driven by periodic changes in benchmark interest rates in the third quarter and first nine months of 2020, respectively. The fluctuations of the U.S. dollar against the euro in the third quarter and first nine months of 2020 and periodic changes in benchmark interest rates resulted in pre-tax losses of \$101 million and \$23 million, respectively, related to our cross-currency swaps. Pre-tax gains of \$89 million and \$81 million related to our cross-currency swaps were reclassified from Accumulated other comprehensive loss to Interest expense in the third quarter and first nine months of 2020, respectively. The remaining change pertains to our commodity cash flow hedges.

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 third quarter and the first nine months of 2020 resulting in gains reflected in the Consolidated Statements of Comprehensive Income. The gains related to unrealized changes in foreign currency translation impacts were partially offset by pre-tax losses of \$62 million and \$60 million in the third quarter and the first nine months of 2020, respectively, which represent the effective portion of our net investment hedges. Additionally, during the first nine months of 2020 we recognized unrealized foreign currency translation losses of \$75 million resulting from the decrease in value of the Mexican peso and the Brazilian real.

Relative to the U.S. dollar, the value of the euro decreased during the third quarter and first nine months of 2019 resulting in losses as reflected in the Consolidated Statements of Comprehensive Income. The net losses attributable to unrealized changes in foreign currency translation impacts include pre-tax gains of \$65 million and \$68 million in the third quarter and first nine months of 2019, respectively, which represent the effective portion of our net investment hedges.

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, such as foreign exchange gains or losses and components of pension and other postretirement benefits other than service costs 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 14 to our Consolidated Financial Statements.

Revenues and the components of EBITDA for the periods presented are reflected in the table below:

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues:				
O&P–Americas segment	\$ 1,840	\$ 2,137	\$ 5,065	\$ 6,362
O&P–EAI segment	1,982	2,309	5,908	7,349
I&D segment	1,538	2,046	4,465	6,002
APS segment	1,004	1,186	2,805	3,783
Refining segment	1,101	2,134	3,468	6,196
Technology segment	193	146	492	460
Other, including intersegment eliminations	(882)	(1,236)	(2,387)	(3,604)
Total	<u>\$ 6,776</u>	<u>\$ 8,722</u>	<u>\$ 19,816</u>	<u>\$ 26,548</u>
Operating income (loss):				
O&P–Americas segment	\$ 309	\$ 524	\$ 654	\$ 1,412
O&P–EAI segment	52	202	268	614
I&D segment	180	314	335	1,000
APS segment	116	67	103	277
Refining segment	(733)	(52)	(931)	(221)
Technology segment	101	73	252	242
Other, including intersegment eliminations	(2)	(4)	(15)	(6)
Total	<u>\$ 23</u>	<u>\$ 1,124</u>	<u>\$ 666</u>	<u>\$ 3,318</u>
Depreciation and amortization:				
O&P–Americas segment	\$ 134	\$ 118	\$ 391	\$ 350
O&P–EAI segment	55	51	161	156
I&D segment	79	75	223	221
APS segment	40	32	123	91
Refining segment	40	41	131	128
Technology segment	10	10	27	31
Total	<u>\$ 358</u>	<u>\$ 327</u>	<u>\$ 1,056</u>	<u>\$ 977</u>

Millions of dollars	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Income (loss) from equity investments:				
O&P–Americas segment	\$ 15	\$ 12	\$ 24	\$ 35
O&P–EAI segment	40	36	88	139
I&D segment	7	1	12	5
APS segment	—	2	(1)	—
Total	<u>\$ 62</u>	<u>\$ 51</u>	<u>\$ 123</u>	<u>\$ 179</u>
Other income (loss), net:				
O&P–Americas segment	\$ 16	\$ (1)	\$ 19	\$ 7
O&P–EAI segment	1	2	5	9
I&D segment	1	—	1	2
APS segment	1	1	1	2
Refining segment	1	5	1	6
Other, including intersegment eliminations	3	4	—	20
Total	<u>\$ 23</u>	<u>\$ 11</u>	<u>\$ 27</u>	<u>\$ 46</u>
EBITDA:				
O&P–Americas segment	\$ 474	\$ 653	\$ 1,088	\$ 1,804
O&P–EAI segment	148	291	522	918
I&D segment	267	390	571	1,228
APS segment	157	102	226	370
Refining segment	(692)	(6)	(799)	(87)
Technology segment	111	83	279	273
Other, including intersegment eliminations	1	—	(15)	14
Total	<u>\$ 466</u>	<u>\$ 1,513</u>	<u>\$ 1,872</u>	<u>\$ 4,520</u>

Olefins and Polyolefins—Americas Segment

Overview—EBITDA declined in the third quarter and first nine months of 2020 relative to the third quarter and first nine months of 2019 due to lower olefin and polyolefin margins in challenging market conditions arising from a low oil price environment and the impact of COVID-19.

Ethylene Raw Materials—We have flexibility to vary the raw material mix and process conditions in our U.S. olefins plants in order to maximize profitability as market prices fluctuate for both feedstocks and products. Although prices of crude-based liquids and natural gas liquids are generally related to crude oil and natural gas prices, during specific periods the relationships among these materials and benchmarks may vary significantly. Strong supplies from U.S. shale oil and gas in conjunction with the return of U.S. ethane feedstock advantages in June 2020 resulted in ethane being a preferred feedstock in our U.S. plants. In the third quarter and first nine months of 2020 approximately 60% of the raw materials used in our North American crackers was ethane compared to approximately 50-55% in the comparable periods of 2019.

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:

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Sales and other operating revenues	\$ 1,840	\$ 2,137	\$ 5,065	\$ 6,362
Income from equity investments	15	12	24	35
EBITDA	474	653	1,088	1,804

Revenues—Revenues for our O&P—Americas segment decreased by \$297 million, or 14%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$1,297 million, or 20%, in the first nine months of 2020 compared to the first nine months of 2019.

Average sales prices were lower in the third quarter and first nine months of 2020 compared to the third quarter and first nine months of 2019 due to the lower oil price environment and the impact of COVID-19. These lower sales prices were responsible for a revenue decrease of 14% and 24% in the third quarter and first nine months of 2020, respectively. Volume increases resulted in a revenue increase of 4% in the first nine months of 2020.

EBITDA—EBITDA decreased by \$179 million, or 27%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$716 million, or 40%, in the first nine months of 2020 compared to the first nine months of 2019.

Lower olefin results led to a 21% and 16% decline in EBITDA in the third quarter and first nine months of 2020, respectively, primarily due to lower co-product prices. Polyethylene results declined resulting in a 14% decrease in EBITDA in the first nine months of 2020. This decrease was driven by a \$162 per ton reduction in price spreads over ethylene in the first nine months of 2020. Polypropylene results led to a 6% and 7% decrease in EBITDA in the third quarter and first nine months of 2020, respectively, largely due to a decline in margins attributed to lower price spreads over propylene of \$97 and \$106 per ton, in the third quarter and first nine months of 2020, respectively, and the impact of Hurricane Laura in August 2020.

Third quarter of 2020 results include an LCM inventory valuation benefit of \$70 million, or 11%, related to the reversal of an LCM inventory valuation charge recognized earlier in the year. These benefits were largely driven by recovery of market prices of ethylene and polymers. Results also include a LIFO inventory charge of \$61 million which was recognized in the third quarter of 2020, reducing EBITDA by 9% and 3% in the third quarter and first nine months of 2020, respectively.

Olefins and Polyolefins—Europe, Asia, International Segment

Overview—EBITDA for the third quarter and first nine months of 2020 decreased compared to the third quarter and first nine months of 2019 mainly as a result of lower olefin and polypropylene margins.

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:

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues	\$ 1,982	\$ 2,309	\$ 5,908	\$ 7,349
Income from equity investments	40	36	88	139
EBITDA	148	291	522	918

Revenues—Revenues decreased by \$327 million, or 14%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$1,441 million, or 20%, in the first nine months of 2020 compared to the first nine months of 2019.

Average sales prices in the third quarter and first nine months of 2020 were lower across most products as sales prices generally correlate with crude oil prices, which on average, decreased compared to the comparative periods in 2019. These lower average sales prices were responsible for revenue decreases of 20% and 21% in the third quarter and first nine months of 2020, respectively. Volume improvements resulted in revenue increases of 2% and 1% in the third quarter and first nine months of 2020, respectively. Foreign exchange impacts, which on average, were favorable resulted in a revenue increase of 4% in the third quarter of 2020.

EBITDA—EBITDA decreased in the third quarter of 2020 by \$143 million, or 49%, compared to the third quarter of 2019 and by \$396 million, or 43%, in the first nine months of 2020 compared to the first nine months of 2019.

Lower olefins results led to a 40% and 17% decrease in EBITDA in the third quarter and first nine months of 2020, respectively, primarily driven by lower margins attributable to decreased ethylene prices. Polypropylene results led to a 14% and 11% decrease in EBITDA in the third quarter and first nine months of 2020, respectively, largely due to a decline in margins attributed to a reduction in price spreads over propylene by \$47 and \$35 per ton, in the third quarter and first nine months of 2020, respectively.

Lower income from our equity investments led to decreases in EBITDA of 6% in the first nine months of 2020 mainly attributable to lower margins from our joint ventures in Saudi Arabia and Asia.

EBITDA decreased by \$53 million or 6% in the first nine months of 2020 compared to 2019 due to LCM inventory valuation charges resulting from a decline in the price of naphtha and polymers. During the third quarter of 2020, EBITDA increased by \$17 million or 6% resulting from the recovery of market prices of naphtha and polymers during the quarter. Unfavorable foreign exchange impacts resulted in a 4% decline in EBITDA in the third quarter of 2020.

Intermediates and Derivatives Segment

Overview—EBITDA for our I&D segment was lower in the third quarter and first nine months of 2020 compared to the third quarter and first nine months of 2019, largely driven by margin erosion due to the impacts of COVID-19.

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

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues	\$ 1,538	\$ 2,046	\$ 4,465	\$ 6,002
Income from equity investments	7	1	12	5
EBITDA	267	390	571	1,228

Revenues—Revenues decreased by \$508 million, or 25%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$1,537 million, or 26%, in the first nine months of 2020 compared to the first nine months of 2019.

Lower average sales prices in the third quarter and first nine months of 2020 for most products, which reflect the impacts of lower feedstock and energy costs and lower demand, were responsible for a revenue decrease of 22% and 21%, respectively. Lower sales volumes driven by decreased demand due to the impacts of COVID-19 in the third quarter and first nine months of 2020 resulted in a 4% and 5% decrease in revenues, respectively. Favorable foreign exchange impacts increased EBITDA by 1% in the third quarter of 2020.

EBITDA—EBITDA decreased \$123 million, or 32%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$657 million, or 54% in the first nine months of 2020 compared to the first nine months of 2019 primarily driven by lower margins across most businesses.

Oxyfuels and related products results declined, resulting in a 44% and 24% decrease in EBITDA in the third quarter and first nine months of 2020, respectively. The decline was a result of lower margins due to lower gasoline prices and higher feedstock prices relative to crude oil prices driven by impacts of the COVID-19 pandemic. Declines in intermediate chemicals results led to an EBITDA decrease of 19% in the first nine months of 2020. This decrease was a result of lower margins as market supply increased and demand weakened in 2020.

Results of our I&D segment were further reduced by \$76 million, or 6%, in the first nine months of 2020 due to an LCM inventory valuation charge resulting from a decline in the price of various gasoline blending components, benzene and styrene since December 31, 2019. Results in the third quarter benefit by \$22 million, or 6%, due to an LCM inventory valuation benefit resulting from price improvements for various gasoline blending components since the second quarter of 2020.

Advanced Polymer Solutions Segment

Overview—EBITDA for our APS segment increased in the third quarter of 2020 relative to the third quarter of 2019, primarily due to lower integration costs related to the acquisition of A. Schulman, and decreased in the first nine months of 2020 relative to the first nine months of 2019, primarily due to lower compounding and solutions volumes.

The following table sets forth selected financial information for the APS segment including losses from equity investments, which is a component of EBITDA:

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Sales and other operating revenues	\$ 1,004	\$ 1,186	\$ 2,805	\$ 3,783
Income (loss) from equity investments	—	2	(1)	—
EBITDA	157	102	226	370

Revenues—Revenues decreased by \$182 million, or 15%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$978 million, or 26%, in the first nine months of 2020 compared to the first nine months of 2019.

Sales volumes declined in the third quarter and first nine months of 2020 stemming from lower market demand for compounding and solutions, including lower automotive and construction demand, which led to a 10% and 21% decrease in revenue in the third quarter and first nine months of 2020, respectively. Average sales prices also declined resulting in a 9% and 5% decline in revenue in the third quarter and first nine months of 2020, respectively. Foreign exchange impacts resulted in a revenue increase of 4% in the third quarter of 2020.

EBITDA—EBITDA increased \$55 million, or 54%, in the third quarter of 2020 compared to the third quarter of 2019 and decreased by \$144 million, or 39%, in the first nine months of 2020 compared to the first nine months of 2019.

The increase in EBITDA in the third quarter of 2020 compared to the third quarter of 2019 was attributable to lower integration costs related to the acquisition of A. Schulman resulting in an increase of \$37 million, or 36%, offset by a 18% decline in advanced polymers results which were driven by lower margins.

Decreased compounding and solutions results led to an EBITDA decrease of 31% in the first nine months of 2020. This decrease was attributable to lower volumes driven by reduced demand for our products utilized in the automotive and construction end markets which were impacted by the COVID-19 pandemic. This decrease was offset by an increase in EBITDA of \$43 million, or 12%, due to lower integration costs related to the acquisition of A. Schulman in the first nine months of 2020.

EBITDA further decreased by \$29 million, or 8%, in the first nine months of 2020 compared to the first nine months of 2019 due to an LCM inventory valuation charge resulting from a decline in the price of polymers. During the third quarter of 2020, EBITDA increased \$40 million, or 39%, largely due to an LCM inventory valuation benefit resulting from recovery of market prices of polymers. Favorable foreign exchange impacts increased EBITDA by 4% in the third quarter.

Refining Segment

Overview—EBITDA for our Refining segment decreased in the third quarter and first nine months of 2020 relative to the third quarter and first nine months of 2019 primarily due to lower margins and a non-cash impairment charge of \$582 million recognized during the third quarter.

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. “Brent” is a light sweet crude oil and is one of the main benchmark prices for purchases of oil worldwide. “Maya” is a heavy sour crude oil grade produced in Mexico that is a relevant benchmark for heavy sour crude oils in the U.S. Gulf Coast market. References to industry benchmarks for refining market margins are to industry prices reported by Platts, a division of S&P Global.

<u>Millions of dollars</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>	<u>2020</u>	<u>2019</u>
Sales and other operating revenues	\$ 1,101	\$ 2,134	\$ 3,468	\$ 6,196
EBITDA	(692)	(6)	(799)	(87)
<u>Thousands of barrels per day</u>				
Heavy crude oil processing rates	216	264	226	261
<u>Market margins, dollars per barrel</u>				
Brent - 2-1-1	\$ 5.71	\$ 12.75	\$ 5.86	\$ 11.29
Brent - Maya differential	4.18	5.36	7.61	5.58
Total Maya 2-1-1	<u>\$ 9.89</u>	<u>\$ 18.11</u>	<u>\$ 13.47</u>	<u>\$ 16.87</u>

Revenues—Revenues decreased by \$1,033 million, or 48%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$2,728 million, or 44%, in the first nine months of 2020 compared to the first nine months of 2019.

Lower product prices led to a revenue decrease of 32% and 36% relative to the third quarter and first nine months of 2019, respectively, due to an average crude oil price decrease of approximately \$18 per barrel in the third quarter of 2020 and \$23 per barrel in the first nine months of 2020. Heavy crude oil processing rates decreased during the third quarter and first nine months of 2020, leading to a decrease in overall sales volumes of 16% and 8%, respectively. Rates on conversion units were lower due to an unplanned outage at our fluid catalytic cracking unit during the first two quarters of 2020, as well as crude selection and the optimization of refinery operations.

EBITDA—EBITDA decreased by \$686 million in the third quarter of 2020 compared to the third quarter of 2019 and decreased by \$712 million in the first nine months of 2020 compared to the first nine months of 2019.

We expect a prolonged period of reduced demand and compressed margins that will decrease profitability for transportation fuels produced by our Houston refinery. The lower profitability is primarily a result of the impacts of the COVID-19 pandemic and associated reductions in mobility affecting the global economy. In addition, the refinery is expected to continue to be adversely affected by lower discounts for the heavy crude oil feedstocks that we utilize. Due to these trends we assessed the Houston refinery for impairment and recognized a non-cash impairment charge in the third quarter of 2020 of \$582 million. Refer to Note 4 to our Consolidated Financial Statements. Accordingly, we plan to operate the refinery at approximately 80 percent of nameplate crude throughput during the fourth quarter of 2020. In efforts to manage costs within the segment, we are deferring non-safety related discretionary activities and reducing the employee workforce by approximately 10 percent through early retirements and potential worker re-deployments to our other facilities. We are also evaluating options with regard to procuring crude oil and optimizing production from the asset.

Results in the third quarter of 2020 also include LCM inventory valuation benefits of \$11 million as market prices for refined products recovered during the quarter.

Margin declines in the third quarter and first nine months of 2020 represents approximately four-fifths and two-thirds of the remaining decrease, respectively. This decline was primarily due to a 45% and 20% decrease in the Maya 2-1-1 market margin in the third quarter and first nine months of 2020, relative to the comparable periods in 2019, driven primarily by lower refined product cracks. The remaining decrease in EBITDA in the third quarter and first nine months of 2020 was due to lower heavy crude oil processing rates driven by lower demand for refined products as well as unplanned outage at our fluid catalytic cracking unit in the first two quarters of 2020.

Technology Segment

Overview—EBITDA for our Technology segment increased in the third quarter of 2020 compared to the third quarter of 2019, primarily due to higher licensing revenues. EBITDA also improved in the first nine months of 2020 compared to the first nine months of 2019 driven by improved catalysts results.

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

<u>Millions of dollars</u>	Three Months Ended September 30,		Nine Months Ended September 30,	
	2020	2019	2020	2019
Sales and other operating revenues	\$ 193	\$ 146	\$ 492	\$ 460
EBITDA	111	83	279	273

Revenues—Revenues increased by \$47 million, or 32%, in the third quarter of 2020 compared to the third quarter of 2019 and by \$32 million, or 7%, in the first nine months of 2020 compared to the first nine months of 2019.

Higher licensing revenues resulted in a revenue increase of 24% in the third quarter of 2020 compared to the third quarter of 2019. Higher catalyst volumes resulted in a 3% and 5% increase in revenue in the third quarter and first nine months of 2019, respectively. The increase in the first nine months of 2020 was driven by increased orders as customers were likely securing inventory early during the pandemic. Increases in average catalyst sales prices resulted in revenue increases of 2% in both the third quarter and first nine months of 2020. Foreign exchange impacts, which on average, were favorable led to a revenue increase of 3% in the third quarter of 2020.

EBITDA—EBITDA increased by \$28 million, or 34%, in the third quarter of 2020 compared to the third quarter of 2019 primarily due to higher licensing revenues as more contracts reached significant milestones in the third quarter of 2020 compared to the third quarter of 2019. EBITDA increased by \$6 million, or 2%, in the first nine months of 2020 compared to the first nine months of 2019 largely due to higher catalyst demand.

FINANCIAL CONDITION

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

<u>Millions of dollars</u>	<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>
Source (use) of cash:		
Operating activities	\$ 2,661	\$ 3,719
Investing activities	(2,307)	(1,210)
Financing activities	1,192	(2,382)

Operating Activities—Cash of \$2,661 million generated by operating activities in the first nine months of 2020 reflected earnings adjusted for non-cash items, payments for employee bonuses, income taxes, and cash provided by the main components of working capital—Accounts receivable, Inventories and Accounts payable.

In the first nine months of 2020, the main components of working capital provided \$514 million of cash driven primarily by a decrease in Inventory. The decrease in Inventory was primarily driven by company-wide inventory reduction initiatives and lower cost of sales across all of our segments.

Cash of \$3,719 million generated by operating activities in the first nine months of 2019 reflected earnings adjusted for non-cash items, payments for employee bonuses, income taxes, and cash consumed by the main components of working capital.

In the first nine months of 2019, the main components of working capital consumed \$65 million of cash driven primarily by an increase in Accounts receivable. The increase in Accounts receivable was largely due to higher sales volumes in our O&P—EAI segment during the period, partially offset by a decrease in Accounts receivable in our I&D and APS segments as a result of unfavorable market conditions.

Investing Activities

Investments— During the third quarter of 2020, we invested \$472 million in cash for a 50% equity interest in the Bora LyondellBasell Petrochemical Co. Ltd joint venture. For additional information related to our Equity investments, see Note 7 to the Consolidated Financial Statements.

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 nine months of 2020 we invested \$270 million in debt securities that are deemed available-for-sale. We also invested \$267 million in equity securities in the first nine months of 2020. Our investments in available-for-sale debt securities and equity securities are classified as Short-term investments.

In the first nine months of 2020 and 2019 we received proceeds of \$313 million and \$332 million, respectively, on the sale of our investments in equity securities. Additionally, we received proceeds of \$90 million and \$511 million in the first nine months of 2020 and 2019, respectively, upon the sale and maturity of certain of our available-for-sale debt securities. See Note 9 to the Consolidated Financial Statements for additional information regarding these investments.

Capital Expenditures—The following table summarizes capital expenditures for the periods presented:

<u>Millions of dollars</u>	<u>Nine Months Ended September 30,</u>	
	<u>2020</u>	<u>2019</u>
Capital expenditures by segment:		
O&P–Americas	\$ 524	\$ 828
O&P–EAI	114	148
I&D	761	734
APS	41	41
Refining	52	137
Technology	80	60
Other	101	15
Consolidated capital expenditures	<u>\$ 1,673</u>	<u>\$ 1,963</u>

In the first nine months of 2020 and 2019, our capital expenditures included construction related to our PO/TBA plant at our Houston, Texas facility, turnaround activities at several sites and other plant improvement projects. Additionally, in the first nine months of 2019, our capital expenditures included construction related to our *Hyperzone* polyethylene plant at our La Porte, Texas facility, that was completed in the first quarter of 2020.

Financing Activities—In the first nine months of 2020 and 2019, we made payments of \$4 million and \$3,752 million to acquire approximately 0.1 million and 42.7 million, respectively, of our outstanding ordinary shares. We also made dividend payments totaling \$1,053 million and \$1,111 million in the first nine months of 2020 and 2019, respectively. For additional information related to our share repurchases and dividend payments, see Note 12 to the Consolidated Financial Statements.

In January 2020, we amended the terms of certain forward-starting interest rate swaps to extend their maturities. Concurrently with the amendment of the swaps, we posted collateral of \$238 million related to the liability position held with our counterparties as of the amendment date. For additional information see Note 9 to the Consolidated Financial Statements.

In April 2020, LYB International Finance III, LLC (“LYB Finance III”), a wholly owned finance subsidiary of LyondellBasell Industries N.V. issued \$500 million of 2.875% guaranteed notes due 2025 (the “2025 Notes”) at a discounted price of 99.911%, \$500 million of 3.375% guaranteed notes due 2030 (the “2030 Notes”) at a discounted price of 99.813% and \$1,000 million of 4.2% guaranteed notes due 2050 (the “2050 Notes”) at a discounted price of 99.373%. Net proceeds from the sale of the notes totaled \$1,974 million. We used the net proceeds from the sale of the notes for general corporate purposes, including to increase our liquidity and manage short-term debt maturities. We invested funds that were not immediately needed for these purposes in short-term investments, including marketable securities.

Additionally, in April 2020 we repaid \$500 million of our Senior Revolving Credit Facility and \$500 million of our U.S. Receivables Facility borrowed in March 2020 to increase our liquidity.

In May 2020, we terminated and cash settled \$2,000 million in notional value of our cross-currency interest rate swaps, designated as cash flows hedges, maturing in 2021 and 2024. Upon termination of the swaps, we received \$346 million from our counterparties.

In February 2019, LYB Americas Finance Company LLC, a wholly owned subsidiary of LyondellBasell Industries N.V., entered into a 364-day, \$2,000 million senior unsecured term loan credit agreement and borrowed the entire amount. The proceeds of this term loan, which is fully and unconditionally guaranteed by LyondellBasell Industries N.V., were used for general corporate purposes and to redeem the remaining \$1,000 million outstanding of our 5% Senior Notes due 2019 at par.

In the first nine months of 2019 we borrowed \$1,000 million from our Term Loan due 2022 and \$500 million from our U.S. Receivables Facility which was used to partially fund the July 2019 share repurchase.

In September 2019, LYB International Finance II B.V. (“LYB Finance II”), a wholly owned finance subsidiary of LyondellBasell N.V., issued €500 million of 0.875% guaranteed notes due 2026 (the “2026 Notes”) at a discounted price of 99.642% and €500 million of 1.625% guaranteed notes due 2031 (the “2031 Notes”) at a discounted price of 98.924%. We used the net proceeds from the 2026 Notes and the 2031 Notes to repay \$1,000 million outstanding under our Term Loan due 2022, and a portion of borrowings from our commercial paper program.

Through the issuance and repurchase of commercial paper instruments under our commercial paper program, we received net proceeds of \$194 million in the first nine months of 2020 and made net repayments of \$23 million in the first nine months of 2019.

Additional information related to the issuance of debt and commercial paper can be found in the Liquidity and Capital Resources section below and in Note 8 to the Consolidated Financial Statements.

In February 2019, we purchased the non-controlling interest in our subsidiary that holds our La Porte, Texas methanol facility for \$63 million.

Liquidity and Capital Resources

Overview

As a result of COVID-19, we continue to take actions to manage our financial risk. In 2020, we increased liquidity through the issuance of guaranteed senior notes and we continue to focus on cost savings while minimizing working capital. In April 2020, we announced that we reduced our budgeted 2020 capital expenditures by \$500 million, bringing our total budget to \$1.9 billion.

In October 2020, we amended (collectively, the “October Amendments”) our (i) Senior Revolving Credit Facility, (ii) Term Loan due 2022, and (iii) U.S. Receivables Facility (collectively, as amended, the “Credit Agreements”). Among other things, the October Amendments amended each Credit Agreement’s maximum leverage ratio financial covenant for certain periods. Additionally, we issued \$3,900 million of Guaranteed Notes; net proceeds from the sale of the notes totaled \$3,848 million.

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. Our focus on funding our dividends while remaining committed to a strong investment grade balance sheet continues to be the foundation of our capital deployment strategy.

Cash and cash equivalents, cash from our short-term investments, cash from operating activities, proceeds from the issuance of debt, or a combination thereof, may be used to fund the purchase of shares under our share repurchase authorization.

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. We believe that our current liquidity availability and cash from operating activities provide us with sufficient financial resources to meet our anticipated capital requirements and obligations as they come due. Further, we believe the current economic environment will not have an adverse effect on our ability to be in compliance with our debt covenants.

Cash and Liquid Investments

As of September 30, 2020, we had Cash and cash equivalents and marketable securities classified as Short-term investments totaling \$2,820 million.

At September 30, 2020, we held \$1,143 million of cash in jurisdictions outside of the U.S., principally in the United Kingdom. There are currently no legal or economic restrictions that would materially impede our transfers of cash.

Credit Arrangements

At September 30, 2020, we had total debt, including current maturities, of \$14,377 million, and \$200 million of outstanding letters of credit, bank guarantees and surety bonds issued under uncommitted credit facilities.

We had total unused availability under our credit facilities of \$2,691 million at September 30, 2020, which included the following:

- \$2,045 million under our \$2,500 million Senior Revolving Credit Facility, which backs our \$2,500 million commercial paper program. 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 September 30, 2020, we had \$455 million of outstanding commercial paper, net of discount, no borrowings or letters of credit outstanding under this facility; and
- \$646 million under our \$900 million U.S. Receivables 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. At September 30, 2020, we had no borrowings or letters of credit outstanding under this facility.

In October 2020, we entered into the October Amendments to our Credit Agreements. Among other things, the October Amendments amended each Credit Agreement's maximum leverage ratio (calculated as the ratio of total net funded debt to consolidated earnings before interest, taxes and depreciation and amortization, both as defined in our Credit Agreements) financial covenant to (i) 4.25 to 1.00 for the fiscal quarter ending December 31, 2020; (ii) 4.50 to 1.00 for the fiscal quarter ending March 31, 2021; (iii) 4.00 to 1.00 for the fiscal quarter ending June 30, 2021; (iv) 3.75 to 1.00 for the fiscal quarter ending September 30, 2021; and (v) 3.50 to 1.00 for the fiscal quarter ending December 31, 2021 and thereafter; provided, that, to the extent our recently announced Louisiana Joint Venture is consummated, the maximum leverage ratio financial covenant will automatically adjust to (i) 5.00 to 1.00 for the fiscal quarters ending December 31, 2020 and March 31, 2021; (ii) 4.75 to 1.00 for the fiscal quarter ending June 30, 2021; (iii) 4.50 to 1.00 for the fiscal quarters ending September 30, 2021 and December 31, 2021; (iv) 4.00 to 1.00 for the fiscal quarter ending March 30, 2022; (v) 3.50 to 1.00 for the fiscal quarter ending June 30, 2022 (or, if the Louisiana Joint Venture is consummated after December 31, 2020, 4.00 to 1.00); and (vi) 3.50 to 1.00 for the fiscal quarter ending September 30, 2022 and thereafter. In addition, with respect to the Senior Revolving Credit Facility and the Term Loan due 2022, the October Amendments further restrict certain dividends and other specified restricted payments.

In October 2020, we also further amended our Amended and Restated Credit Agreement (the "Amendment and Consent Agreement") to extend the term of \$2,440 million of the \$2,500 million Senior Revolving Credit Facility for one year until June 2023, the remainder expires in June 2022. The Amendment and Consent Agreement also included customary LIBOR replacement language, which took effect in October 2020. All other material terms of the Credit Agreement remain unchanged.

Additionally, in October 2020, LYB Finance III issued \$650 million aggregate principal amount of Guaranteed Floating Rate Notes due 2023 (the "Floating Rate Notes"), \$500 million aggregate principal amount of 1.25% Guaranteed Notes due 2025 (the "1.25% 2025 Notes"), \$500 million aggregate principal amount of 2.25% Guaranteed Notes due 2030 (the "2.25% 2030 Notes"), \$750 million aggregate principal amount of 3.375% Guaranteed Notes due 2040 (the "2040 Notes"), \$1,000 million aggregate principal amount of 3.625% Guaranteed Notes due 2051 (the "2051 Notes"), and \$500 million aggregate principal amount of 3.8% Guaranteed Notes due 2060 (the "2060 Notes" and, collectively with the Floating Rate Notes, the 1.25% 2025 notes, the 2.25% 2030 notes, the 2040 notes and the 2051 notes, the "October Notes").

The net proceeds of the October Notes was \$3,848 million. In October we used \$500 million of the net proceeds to repay a portion of the indebtedness outstanding under our Term Loan due 2022. The remaining net proceeds will be used in the fourth quarter to fund a portion of the purchase price for the Louisiana Joint Venture, redeem or repay up to \$1 billion aggregate principal amount of our 6.0% senior notes due 2021, and redeem or repay up to €750 million aggregate principal amount of our 1.875% guaranteed notes due 2022. Such redemption notices have been issued in October 2020. In conjunction with the redemption of these notes, we expect to pay an estimated \$116 million in related premiums, accrued interest and fees and expenses associated with such redemption or repayment of both notes.

If the Louisiana Joint Venture transaction does not close on or prior to March 31, 2021, or is terminated on or prior to completion, we will be required to redeem all of the outstanding 1.25% 2025 Notes, 2.25% 2030 Notes and 2060 Notes at a redemption price equal to 101% of the aggregate principal amount plus accrued and unpaid interest for each of these notes. We may also use net proceeds of this offering to fund such redemption.

We may repay or redeem our debt, including purchases of our outstanding bonds in the open market, using cash and cash equivalents, cash from our short-term investments, cash from operating activities, proceeds from the issuance of debt, proceeds from asset divestitures, or a combination thereof. For additional information regarding redemption provisions of our bonds, see Note 8 to our Consolidated Financial Statements. 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.

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 our variable rate debt to fixed rate debt.

Share Repurchases

In May 2020, our shareholders approved a proposal to authorize us to repurchase up to 34.0 million of our ordinary shares through November 29, 2021, which superseded any prior repurchase authorizations. Our share repurchase authorization 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. 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. In the first nine months of 2020, we purchased approximately 0.1 million shares under our share repurchase authorization for approximately \$4 million.

As of October 28, 2020, we had approximately 34.0 million shares remaining under the current authorization. The timing and amounts of additional shares repurchased, if any, will be determined based on our evaluation of market conditions and other factors, including any additional authorizations approved by our shareholders. We will prioritize debt repayment over share repurchases for the remainder of 2020. For additional information related to our share repurchase authorizations, see Note 12 to the Consolidated Financial Statements.

Capital Budget

As a result of the coronavirus and current market conditions, the Company has postponed selected growth projects and planned maintenance, including slowing construction activities on our PO/TBA plant, allowing us to prevent the spread of the virus at the construction site and conserve capital as we prepared for an uncertain economic environment caused by the pandemic. We currently expect that these actions will reduce 2020 capital expenditures to \$1.9 billion. This represents a 20% decrease compared to our budget as of December 31, 2019. Our capital expenditures budget includes approximately \$80 million for investments in our U.S. and European PO joint ventures.

We have begun to reactivate construction on our PO/TBA project and expect to return to a full pace in the fourth quarter of 2020. We expect the project to be completed in the fourth quarter of 2022, approximately one year later than originally estimated. The delayed timing of the startup should provide benefits from a more fully recovered global economy as well as another year of global demand growth for the products. Higher costs arising from the delayed project execution, more extensive civil construction and unexpected tariffs on materials are expected to add at least 30 percent to our original cost estimate of \$2.4 billion dollars. Once complete, our world-scale PO/TBA plant will have the capacity to produce 470 thousand tons of PO and 1.0 million tons of tertiary butyl alcohol.

Equity Investment

On October 1, 2020 we signed a definitive agreement with Sasol Chemicals (USA) LLC (“Sasol”) to form the Louisiana Integrated PolyEthylene JV LLC joint venture. Through the creation of this joint venture, we will acquire 50% of the 1.5 million ton ethane cracker, 0.9 million ton low and linear-low density polyethylene plants and associated infrastructure located in Lake Charles, Louisiana, for a total cash consideration of \$2 billion subject to customary adjustments for working capital and other items. The transaction is expected to close by the end of 2020, subject to customary regulatory approvals and approval by Sasol shareholders.

CURRENT BUSINESS OUTLOOK

Recovery in global economies should continue to benefit the petrochemical industry. Despite the backdrop of both the pandemic and a recession, we expect global polyethylene demand to grow for 2020. China continues to have a polyethylene trade deficit which supports North American exports and tightens the U.S. domestic market. We expect continued strength in North American integrated polyethylene margins during the fourth quarter of 2020, perhaps with some seasonal moderation by the end of the year. Slow recovery in global mobility is weighing on demand for gasoline and jet fuel which will prolong headwinds for our Refining segment and our oxyfuels and related products businesses in our Intermediates and Derivatives segment.

After several years of advancing on our value-driven growth strategy, we are poised to reap the rewards of our investments as our industry benefits from a recovering economy. In October 2020, we announced a new integrated polyethylene joint venture with Sasol in Louisiana. This partnership represents a measured approach to extend one of our core businesses and increase free cash flow. Our new *Hyperzone* polyethylene capacity, several expansions across our joint venture network and the integration of our A. Schulman acquisition should all add to our profitability over the coming years. We remain committed to an investment grade balance sheet while focusing on funding our dividend with cash from operations. Upon closing of the transaction for the Louisiana joint venture, we will prioritize debt repayment over share repurchases.

CRITICAL ACCOUNTING POLICIES

Impairment Assessment of Property, Plant and Equipment—The need to test for impairment can be based on several indicators, including a significant reduction in prices of or demand for products produced, a weakened outlook for profitability, a significant reduction in margins, other changes to contracts or changes in the regulatory environment. If the sum of the undiscounted estimated pre-tax cash flows for an asset group is less than the asset group's carrying value, fair value is calculated for the asset group, and the carrying value is written down to the calculated fair value. For purposes of impairment evaluation, long-lived assets must be grouped at the lowest level for which independent cash flows can be identified.

Fair value calculated for the purpose of testing our property, plant and equipment for impairment is estimated using the expected present value of future cash flows method and comparative market prices when appropriate. Significant judgment is involved in performing these fair value estimates since the results are based on forecasted financial information prepared using significant assumptions which may include, among other things, projected changes in supply and demand fundamentals (including industry-wide capacity, our planned utilization rate, end-user demand), new technological developments, capital expenditures, new competitors with significant raw material or other cost advantages, changes associated with world economies, the cyclical nature of the chemical and refining industries, uncertainties associated with governmental actions and other economic conditions. Such estimates are consistent with those used in our planning and capital investment and business performance reviews.

We apply a discount rate to our cash flows based on a variety of factors, including market and economic conditions, operational risk, regulatory risk and political risk. This discount rate is also compared to recent observable market transactions, if possible.

Assumptions about the effects of COVID-19 and the macroeconomic environment are inherently subjective and contingent upon the duration of the pandemic and its impact on the macroeconomic environment, which is difficult to forecast. We base our fair value estimates on projected financial information which we believe to be reasonable. However, actual results may differ from these projections.

During the third quarter of 2020, we identified impairment triggers relating to our Houston refinery's asset group which resulted in a \$582 million impairment charge recognized during the third quarter of 2020. Refer to Note 4 to our Consolidated Financial Statements.

The estimates of the Houston refinery's undiscounted pre-tax cash flows and estimated fair value utilized significant assumptions including management's best estimates of the expected future cash flows, the estimated useful lives of the asset group, and the residual value of the refinery. These estimates require considerable judgment and are sensitive to changes in underlying assumptions such as future commodity prices, margins on refined products, operating rates and capital expenditures including repairs and maintenance. As a result, there can be no assurance that the estimates and assumptions made for purposes of our impairment analysis will prove to be an accurate prediction of the future. Should our estimates and assumptions significantly change in future periods, it is possible that we may determine future impairment charges.

An estimate of the sensitivity to net income resulting from impairment calculations is not practicable, given the numerous assumptions, including pricing, volumes and discount rates, that can materially affect our estimates. That is, unfavorable adjustments to some of the above listed assumptions may be offset by favorable adjustments in other assumptions.

Inventory—Our inventories are stated at the lower of cost or market ("LCM"). Cost is determined using the last-in, first-out ("LIFO") inventory valuation methodology, which means that the most recently incurred costs are charged to cost of sales and inventories are valued at the earliest acquisition costs. Market value is determined based on an assessment of the current estimated replacement cost and selling price of the inventory.

During the first nine months of 2020, we recognized LCM inventory valuation charges of \$163 million related to the decline in pricing for many of our raw material and finished goods inventories. During the third quarter of 2020, we recognized LCM inventory valuation benefits of \$160 million, largely driven by the recovery of market prices during the quarter.

In the first quarter of 2020, market price declines in crude oil, heavy liquids and ethylene were the primary contributors to the LCM inventory valuation charges, and representative prices used in the calculation of this LCM inventory valuation charge were \$12.14 per barrel for crude oil, \$13.50 per barrel for heavy liquids and \$205 per ton for ethylene. In the second quarter of 2020, market price recoveries in crude oil, heavy liquids and ethylene were the primary contributors to LCM inventory valuation benefits, and representative prices used in such calculation were \$32.22 per barrel for crude oil, \$40.42 per barrel for heavy liquids and \$276 per ton for ethylene. In the third quarter of 2020, continued market price recovery in ethylene was the primary contributor to the LCM inventory valuation benefit, and representative prices used in the calculation of the LCM inventory valuation benefit as of September 30, 2020 were \$32.58 per barrel for crude oil, \$41.46 per barrel for heavy liquids and \$514 per ton for ethylene.

Since our inventory consists of manufactured products derived from crude oil, natural gas, natural gas liquids and correlated materials, as well as the associated feedstocks and intermediate chemicals, our inventory market values are generally influenced by changes in the benchmark of crude oil and heavy liquid values and prices for manufactured finished goods. The degree of influence of a particular benchmark may vary from period to period, as the composition of the dollar value LIFO pools change. Additionally, an LCM condition may arise due to a volumetric decline in a particular material that had previously provided a positive impact within a pool. As a result, market valuations and LCM conditions are dependent upon the inventory composition at the balance sheet date. In the measurement of an LCM adjustment, the numeric input value for determining the crude oil market price includes pricing that is weighted by volume of inventories held at a point in time, including WTI, Brent and Maya crude oils.

Currently, ten out of our eleven LIFO inventory pools are “at-risk” for further adjustment as each impacted LIFO pool has been reduced to, or close to, the calculated market value at the last balance sheet measurement date. “At-risk” inventory accounts for \$2.9 billion of our total inventory carrying value as of September 30, 2020. The extent to which further adjustment may occur is dependent on the pool specific product prices and composition within each individual dollar value LIFO pool at the balance sheet date. Further sustained price declines in our finished goods and raw materials could result in future LCM inventory valuation charges. However, if pricing trends reverse, some, or all of these charges could be reversed in future quarterly periods.

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.

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,” “will,” “expect,” “objective,” “projection,” “forecast,” “goal,” “guidance,” “outlook,” “effort,” “target” and similar expressions.

We based forward-looking statements on our current expectations, estimates and projections of our business and the industries in which we operate. We caution you that these statements are not guarantees of future performance. They involve assumptions about future events that, while made in good faith, may prove to be incorrect, and involve risks and uncertainties we cannot predict. 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, natural gas liquids 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 operations in the United States (“U.S.”) 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 fall 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, substantial capacity expansions are underway in the U.S. olefins industry;
- we may face unplanned operating interruptions (including leaks, explosions, fires, weather-related incidents, mechanical failures, 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;
- 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;
- our ability to execute our organic growth plans may be negatively affected by our ability to complete projects on time and on budget;
- our ability to acquire new businesses and assets and integrate those operations into our existing operations and make cost-saving changes in operations;
- 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;
- uncertainties related to the extent and duration of the pandemic-related decline in demand, or other impacts due to the pandemic in geographic regions or markets served by us, or where our operations are located, including the risk of prolonged recession;

- 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, reduce demand for our products, or otherwise limit our ability to achieve savings under current regulations;
- 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 significant international operations, and 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. 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, 2019. Our exposure to such risks has not changed materially in the nine months ended September 30, 2020.

Item 4. CONTROLS AND PROCEDURES

As of September 30, 2020, 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 effective as of September 30, 2020.

There have been no changes in our internal controls 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.

PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

Information regarding our litigation and other legal proceedings can be found in Note 11 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 penalties are reasonably likely to be \$100,000 or more:

In February 2020, the State of Texas filed suit against Houston Refining in Travis County District Court seeking civil penalties and injunctive relief for violations of the Texas Clean Air Act related to several emission events. In July 2020, Harris County, Texas, petitioned to intervene in the lawsuit and the State added additional claims to its petition relating to self-reported deviations of Houston Refining's air operating permit. We reasonably believe resolution of this matter will result in payment of a penalty in excess of \$100,000.

On September 2, 2020, the Texas Commission on Environmental Quality issued a Proposed Agreed Order to the Equistar Corpus Christi facility seeking an administrative penalty in the amount of \$225,000 in connection with emissions events that occurred in June 2017 and January 2018.

Additional information about our other environmental proceedings can be found in Part I, Item 3 of our 2019 Annual Report on Form 10-K and Part II, Item 1 of our Forms 10-Q for the quarters ended March 31, 2020 and June 30, 2020, which is incorporated into this Item 1 by reference.

Item 1A. RISK FACTORS

There have been no material changes to the risk factors associated with our business previously disclosed in "Item 1A. Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2019, except as set forth below. The risk factor set forth below updates, and should be read together with, the risk factors disclosed in "Item 1A. Risk Factors," in our 2019 Annual Report on Form 10-K and our Form 10-Q for the quarter ended March 31, 2020.

We may be required to record material charges against our earnings due to any number of events that could cause us to impair our assets.

We may be required to reduce production or idle facilities for extended periods of time or exit certain businesses as a result of the cyclical nature of our industry. Specifically, oversupplies of or lack of demand for particular products or high raw material prices may cause us to reduce production. We may choose to reduce production at certain facilities because we have off-take arrangements at other facilities, which make any reductions or idling unavailable at those facilities. We routinely monitor these and other indicators that may lead us to test our assets for impairment, which results in a charge to earnings.

These or other events may result in temporary shutdowns at our facilities that can last for several quarters and sometimes longer. Shutdowns could cause us to incur significant costs, including the expenses of maintaining and restarting these facilities. In addition, even though we may choose to shut down plants or reduce production, we may be required to continue to purchase or pay for utilities or raw materials under take-or-pay supply agreements. Any decision to temporally or permanently close facilities, reduce production or exit a business may result in impairment and other charges to earnings.

Events surrounding the ongoing COVID-19 pandemic continue to depress demand for some of our products, including extended loss of demand and resulting pricing pressures for transportation fuels produced by our Houston refinery. Lower refining and marketing margins may reduce the amount of refined products we produce, which may reduce our revenues, income from operations and cash flows. Significant and sustained reductions in refining and marketing gross margins could require us to further reduce our capital expenditures, or impair the carrying value of our assets (such as property, plant and equipment or inventory). For example, refer to Note 4 to our Consolidated Financial Statements included in this Quarterly Report on Form 10-Q for a discussion of our non-cash impairment charge related our Houston refinery. If conditions that contributed to this impairment worsen or impact other assets, we may incur additional non-cash impairments and such impairments may be material to our results of operations.

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

None.

Item 4. MINE SAFETY DISCLOSURES

Not applicable.

Item 6. EXHIBITS

Exhibit Number	Description
4.1	<u>Officer's Certificate of LYB International Finance III, LLC relating to the Guaranteed Floating Rate Notes due 2023, 1.250% Guaranteed Notes due 2025, 2.250% Guaranteed Notes due 2030, 3.375% Guaranteed Notes due 2040, 3.625% Guaranteed Notes due 2051, and 3.800% Guaranteed Notes due 2060, dated as of October 8, 2020 (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K filed with the SEC on October 8, 2020)</u>
4.2	<u>Form of LYB International Finance III, LLC's Guaranteed Floating Rate Notes due 2023 (included in Exhibit 4.1)</u>
4.3	<u>Form of LYB International Finance III, LLC's 1.250% Guaranteed Notes due 2025 (included in Exhibit 4.1)</u>
4.4	<u>Form of LYB International Finance III, LLC's 2.250% Guaranteed Notes due 2030 (included in Exhibit 4.1)</u>
4.5	<u>Form of LYB International Finance III, LLC's 3.375% Guaranteed Notes due 2040 (included in Exhibit 4.1)</u>
4.6	<u>Form of LYB International Finance III, LLC's 3.625% Guaranteed Notes due 2051 (included in Exhibit 4.1)</u>
4.7	<u>Form of LYB International Finance III, LLC's 3.800% Guaranteed Notes due 2060 (included in Exhibit 4.1)</u>
10.1	<u>Membership Interest Purchase Agreement, dated as of October 1, 2020, among Sasol Chemicals (USA) LLC, Louisiana Integrated PolyEthylene JV LLC, LyondellBasell LC Offtake LLC, and solely for the purposes of Section 2.07, Lyondell Chemical Company, and, solely for the purposes of Section 6.05, Sasol Limited (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on October 2, 2020)</u>
10.2	<u>Amendment No. 3 to the Amended and Restated Credit Agreement, dated October 8, 2020, among LyondellBasell Industries N.V. and LYB Americas Finance Company LLC, as borrowers, the lenders party thereto, and Bank of America, N.A., as administrative agent (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on October 8, 2020)</u>
10.3	<u>Amendment No. 2 to the Three-Year Credit Agreement, dated October 8, 2020, among LyondellBasell Industries N.V. as guarantor, and LYB Americas Finance Company LLC, as borrower, and Bank of America, N.A., as administrative agent (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed with the SEC on October 8, 2020)</u>
10.4	<u>Acknowledgement of Amendment to Receivables Purchase Agreement, dated October 8, 2020, among Lyondell Chemical Company, as servicer, LYB Receivables LLC, as seller, the conduit purchasers, related committed purchasers, LC participants and purchaser agents party thereto, the other parties thereto and Mizuho Bank, Ltd., as administrator and letter of credit bank (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed with the SEC on October 8, 2020)</u>
10.5+*	<u>Letter to Torkel Rhenman dated July 22, 2020</u>

Exhibit Number	Description
10.6	Amendment No. 4 to the Amended and Restated Credit Agreement and Consent Agreement, dated October 14, 2020, among LyondellBasell Industries N.V. and LYB Americas Finance Company LLC, as borrowers, the lenders party thereto, and Bank of America, N.A., as administrative agent and the lender parties thereto (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on October 16, 2020)
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–The instance document does not appear in the interactive data file because its XBRL tags are embedded within the Inline XBRL 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
104*	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

+ Management contract or compensatory plan, contract or arrangement

* Filed herewith

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: October 30, 2020

/s/ Jacinth C. Smiley

Jacinth C. Smiley

Vice President and

Chief Accounting Officer

(Principal Accounting Officer)



July 22, 2020

Torkel Rhenman
[Address omitted]

Dear Torkel,

On May 27, 2020, the Compensation Committee of the Board of Directors for LyondellBasell Industries N.V. (the "Company") confirmed that the definition of "Retirement" under the LyondellBasell Industries Long-Term Incentive Plan ("LTI Plan") that was effective at your date of hire (July 10, 2019) will be applied to each of your current and future equity grants under the LTI Plan. At your date of hire, "Retirement" under the LTI Plan was defined as follows:

"Retirement" means a Participant's voluntarily initiated termination of service on or after the earliest of (i) age 65, (ii) age 55 with 10 years of participation service credited under the qualified defined benefit pension plan maintained by the Company or an Affiliate in which the Participant is eligible to participate, (iii) the time of retirement as defined in a written agreement between a Participant and a Participating Employer, or (iv) outside the U.S., the time when retirement is permitted and the Participant is eligible to receive a company retirement benefit under applicable law with respect to the Participant's primary place of employment (as determined by the Committee in its sole judgment).

Upon termination of employment due to "Retirement," your awards under the LTI Plan will vest on a pro rata basis, and any Restriction Period shall lapse, as provided in the applicable Award Agreement. Any unvested awards shall be treated as provided in the applicable Award Agreement.

This letter does not amend your Award Agreements under the LTI Plan, but affirms your eligibility for "Retirement" based upon the definition above. Accordingly, all terms and conditions of such Award Agreements will remain in full force and effect. Further, all capitalized terms not defined herein will have the same meaning as set forth in the LTI Plan.

In the event the definition of "Retirement" is amended in the future for other similarly situated executives participating in the LTI Plan and would result in more favorable treatment for "Retirement," the "Retirement" definition in the respective Award Agreement shall supersede the definition outlined in this letter.

This letter will remain in force with the Company's Executive Services team. Please contact Dennis Varghese at 713-309-4316 or execserv@lyb.com should you have questions.

Sincerely,

/s/ Dale Friedrichs

Dale Friedrichs
SVP, Human Resources

CERTIFICATION

I, Bhavesh V. Patel, certify that:

1. I have reviewed this quarterly report on Form 10-Q of LyondellBasell Industries N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

October 30, 2020

/s/ Bhavesh V. Patel
Bhavesh V. Patel
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Michael C. McMurray, certify that:

1. I have reviewed this quarterly report on Form 10-Q of LyondellBasell Industries N.V.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

October 30, 2020

/s/Michael C. McMurray
Michael C. McMurray
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)

CERTIFICATIONS PURSUANT TO 18 U.S.C. SECTION 1350

In connection with the Quarterly Report of LyondellBasell Industries N.V. (the Company) on Form 10-Q for the period ended September 30, 2020, as filed with the U.S. Securities and Exchange Commission on the date hereof (the Report), each of the undersigned hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to their knowledge:

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

October 30, 2020

/s/Bhavesh V. Patel
Bhavesh V. Patel
Chief Executive Officer
(Principal Executive Officer)

/s/Michael C. McMurray
Michael C. McMurray
Executive Vice President and
Chief Financial Officer
(Principal Financial Officer)