
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549
FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2019

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 001-13175

VALERO ENERGY CORPORATION

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

74-1828067

(I.R.S. Employer
Identification No.)

**One Valero Way
San Antonio, Texas**

(Address of principal executive offices)

78249

(Zip Code)

(210) 345-2000

(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common stock	VLO	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 every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "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 number of shares of the registrant's only class of common stock, \$0.01 par value, outstanding as of October 29, 2019 was 410,652,732.

VALERO ENERGY CORPORATION

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

VALERO ENERGY CORPORATION CONSOLIDATED BALANCE SHEETS (millions of dollars, except par value)

	September 30, 2019 (unaudited)	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 2,137	\$ 2,982
Receivables, net	7,994	7,345
Inventories	6,376	6,532
Prepaid expenses and other	526	816
Total current assets	17,033	17,675
Property, plant, and equipment, at cost	43,539	42,473
Accumulated depreciation	(14,649)	(13,625)
Property, plant, and equipment, net	28,890	28,848
Deferred charges and other assets, net	5,306	3,632
Total assets	\$ 51,229	\$ 50,155
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of debt and finance lease obligations	\$ 402	\$ 238
Accounts payable	9,504	8,594
Accrued expenses	881	630
Taxes other than income taxes payable	1,175	1,213
Income taxes payable	168	49
Total current liabilities	12,130	10,724
Debt and finance lease obligations, less current portion	9,170	8,871
Deferred income tax liabilities	4,920	4,962
Other long-term liabilities	3,421	2,867
Commitments and contingencies		
Equity:		
Valero Energy Corporation stockholders' equity:		
Common stock, \$0.01 par value; 1,200,000,000 shares authorized; 673,501,593 and 673,501,593 shares issued	7	7
Additional paid-in capital	6,818	7,048
Treasury stock, at cost; 262,691,943 and 255,905,051 common shares	(15,472)	(14,925)
Retained earnings	31,283	31,044
Accumulated other comprehensive loss	(1,529)	(1,507)
Total Valero Energy Corporation stockholders' equity	21,107	21,667
Noncontrolling interests	481	1,064
Total equity	21,588	22,731
Total liabilities and equity	\$ 51,229	\$ 50,155

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(millions of dollars, except per share amounts)
(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Revenues (a)	\$ 27,249	\$ 30,849	\$ 80,445	\$ 88,303
Cost of sales:				
Cost of materials and other	24,335	27,701	72,396	79,317
Operating expenses (excluding depreciation and amortization expense reflected below)	1,239	1,193	3,629	3,439
Depreciation and amortization expense	556	504	1,645	1,499
Total cost of sales	26,130	29,398	77,670	84,255
Other operating expenses	10	10	14	41
General and administrative expenses (excluding depreciation and amortization expense reflected below)	217	209	625	695
Depreciation and amortization expense	11	13	39	39
Operating income	881	1,219	2,097	3,273
Other income, net	34	42	68	88
Interest and debt expense, net of capitalized interest	(111)	(111)	(335)	(356)
Income before income tax expense	804	1,150	1,830	3,005
Income tax expense	165	276	376	674
Net income	639	874	1,454	2,331
Less: Net income attributable to noncontrolling interests	30	18	92	161
Net income attributable to Valero Energy Corporation stockholders	\$ 609	\$ 856	\$ 1,362	\$ 2,170
Earnings per common share	\$ 1.48	\$ 2.01	\$ 3.28	\$ 5.05
Weighted-average common shares outstanding (in millions)	412	425	415	428
Earnings per common share – assuming dilution	\$ 1.48	\$ 2.01	\$ 3.28	\$ 5.05
Weighted-average common shares outstanding – assuming dilution (in millions)	413	427	416	430
Supplemental information:				
(a) Includes excise taxes on sales by certain of our international operations	\$ 1,399	\$ 1,338	\$ 4,139	\$ 4,272

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(millions of dollars)
(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Net income	\$ 639	\$ 874	\$ 1,454	\$ 2,331
Other comprehensive income (loss):				
Foreign currency translation adjustment	(180)	23	(25)	(223)
Net gain on pension and other postretirement benefits	3	8	8	25
Net gain (loss) on cash flow hedges	(4)	—	1	—
Other comprehensive income (loss) before income tax expense	(181)	31	(16)	(198)
Income tax expense related to items of other comprehensive income (loss)	—	1	2	5
Other comprehensive income (loss)	(181)	30	(18)	(203)
Comprehensive income	458	904	1,436	2,128
Less: Comprehensive income attributable to noncontrolling interests	28	21	96	162
Comprehensive income attributable to Valero Energy Corporation stockholders	\$ 430	\$ 883	\$ 1,340	\$ 1,966

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY
(millions of dollars)
(unaudited)

Valero Energy Corporation Stockholders' Equity								
	Common Stock	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total	Non- controlling Interests	Total Equity
Balance as of June 30, 2019	\$ 7	\$ 6,812	\$ (15,170)	\$ 31,046	\$ (1,350)	\$ 21,345	\$ 492	\$ 21,837
Net income	—	—	—	609	—	609	30	639
Dividends on common stock (\$0.90 per share)	—	—	—	(372)	—	(372)	—	(372)
Stock-based compensation expense	—	9	—	—	—	9	—	9
Transactions in connection with stock-based compensation plans	—	(3)	4	—	—	1	—	1
Stock purchases under purchase program	—	—	(306)	—	—	(306)	—	(306)
Distributions to noncontrolling interests	—	—	—	—	—	—	(39)	(39)
Other comprehensive loss	—	—	—	—	(179)	(179)	(2)	(181)
Balance as of September 30, 2019	<u>\$ 7</u>	<u>\$ 6,818</u>	<u>\$ (15,472)</u>	<u>\$ 31,283</u>	<u>\$ (1,529)</u>	<u>\$ 21,107</u>	<u>\$ 481</u>	<u>\$ 21,588</u>
Balance as of June 30, 2018	\$ 7	\$ 7,032	\$ (13,923)	\$ 29,915	\$ (1,262)	\$ 21,769	\$ 1,035	\$ 22,804
Net income	—	—	—	856	—	856	18	874
Dividends on common stock (\$0.80 per share)	—	—	—	(341)	—	(341)	—	(341)
Stock-based compensation expense	—	11	—	—	—	11	—	11
Transactions in connection with stock-based compensation plans	—	—	(15)	—	—	(15)	—	(15)
Stock purchases under purchase program	—	—	(396)	—	—	(396)	—	(396)
Distributions to noncontrolling interests	—	—	—	—	—	—	(13)	(13)
Other	—	(1)	—	—	—	(1)	7	6
Other comprehensive income	—	—	—	—	27	27	3	30
Balance as of September 30, 2018	<u>\$ 7</u>	<u>\$ 7,042</u>	<u>\$ (14,334)</u>	<u>\$ 30,430</u>	<u>\$ (1,235)</u>	<u>\$ 21,910</u>	<u>\$ 1,050</u>	<u>\$ 22,960</u>

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF EQUITY (Continued)
(millions of dollars)
(unaudited)

	Valero Energy Corporation Stockholders' Equity							
	Common Stock	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total	Non- controlling Interests	Total Equity
Balance as of December 31, 2018	\$ 7	\$ 7,048	\$ (14,925)	\$ 31,044	\$ (1,507)	\$ 21,667	\$ 1,064	\$ 22,731
Net income	—	—	—	1,362	—	1,362	92	1,454
Dividends on common stock (\$2.70 per share)	—	—	—	(1,123)	—	(1,123)	—	(1,123)
Stock-based compensation expense	—	30	—	—	—	30	—	30
Transactions in connection with stock-based compensation plans	—	(6)	5	—	—	(1)	—	(1)
Stock purchases under purchase program	—	—	(552)	—	—	(552)	—	(552)
Acquisition of Valero Energy Partners LP publicly held common units	—	(328)	—	—	—	(328)	(622)	(950)
Distributions to noncontrolling interests	—	—	—	—	—	—	(57)	(57)
Other	—	74	—	—	—	74	—	74
Other comprehensive income (loss)	—	—	—	—	(22)	(22)	4	(18)
Balance as of September 30, 2019	<u>\$ 7</u>	<u>\$ 6,818</u>	<u>\$ (15,472)</u>	<u>\$ 31,283</u>	<u>\$ (1,529)</u>	<u>\$ 21,107</u>	<u>\$ 481</u>	<u>\$ 21,588</u>
Balance as of December 31, 2017	\$ 7	\$ 7,039	\$ (13,315)	\$ 29,200	\$ (940)	\$ 21,991	\$ 909	\$ 22,900
Reclassification of stranded income tax effects	—	—	—	91	(91)	—	—	—
Net income	—	—	—	2,170	—	2,170	161	2,331
Dividends on common stock (\$2.40 per share)	—	—	—	(1,031)	—	(1,031)	—	(1,031)
Stock-based compensation expense	—	40	—	—	—	40	—	40
Transactions in connection with stock-based compensation plans	—	(34)	(115)	—	—	(149)	—	(149)
Stock purchases under purchase program	—	—	(904)	—	—	(904)	—	(904)
Contributions from noncontrolling interests	—	—	—	—	—	—	32	32
Distributions to noncontrolling interests	—	—	—	—	—	—	(63)	(63)
Other	—	(3)	—	—	—	(3)	10	7
Other comprehensive income (loss)	—	—	—	—	(204)	(204)	1	(203)
Balance as of September 30, 2018	<u>\$ 7</u>	<u>\$ 7,042</u>	<u>\$ (14,334)</u>	<u>\$ 30,430</u>	<u>\$ (1,235)</u>	<u>\$ 21,910</u>	<u>\$ 1,050</u>	<u>\$ 22,960</u>

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(millions of dollars)
(unaudited)

	Nine Months Ended September 30,	
	2019	2018
Cash flows from operating activities:		
Net income	\$ 1,454	\$ 2,331
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization expense	1,684	1,538
Deferred income tax expense (benefit)	19	(62)
Changes in current assets and current liabilities	728	(1,174)
Changes in deferred charges and credits and other operating activities, net	(62)	60
Net cash provided by operating activities	3,823	2,693
Cash flows from investing activities:		
Capital expenditures (excluding variable interest entities (VIEs))	(1,179)	(1,025)
Capital expenditures of VIEs:		
Diamond Green Diesel Holdings LLC (DGD)	(91)	(143)
Other VIEs	(139)	(89)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	(583)	(641)
Deferred turnaround and catalyst cost expenditures of DGD	(16)	(20)
Investments in unconsolidated joint ventures	(122)	(124)
Peru Acquisition, net of cash acquired	—	(466)
Acquisitions of undivided interests	(65)	(181)
Minor acquisitions	—	(88)
Other investing activities, net	5	9
Net cash used in investing activities	(2,190)	(2,768)
Cash flows from financing activities:		
Proceeds from debt issuances and borrowings (excluding VIEs)	1,892	1,258
Proceeds from borrowings of VIEs	148	71
Repayments of debt and finance lease obligations (excluding VIEs)	(1,796)	(1,348)
Repayments of debt of VIEs	(4)	(4)
Purchases of common stock for treasury	(555)	(1,081)
Common stock dividends	(1,123)	(1,031)
Acquisition of Valero Energy Partners LP publicly held common units	(950)	—
Contributions from noncontrolling interests	—	32
Distributions to noncontrolling interests	(57)	(63)
Other financing activities, net	(29)	(15)
Net cash used in financing activities	(2,474)	(2,181)
Effect of foreign exchange rate changes on cash	(4)	(43)
Net decrease in cash and cash equivalents	(845)	(2,299)
Cash and cash equivalents at beginning of period	2,982	5,850
Cash and cash equivalents at end of period	\$ 2,137	\$ 3,551

See Condensed Notes to Consolidated Financial Statements.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

General

The terms “Valero,” “we,” “our,” and “us,” as used in this report, may refer to Valero Energy Corporation, one or more of its consolidated subsidiaries, or all of them taken as a whole.

These unaudited financial statements have been prepared in accordance with United States (U.S.) generally accepted accounting principles (GAAP) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X of the Securities Exchange Act of 1934. Accordingly, they do not include all of the information and notes required by U.S. GAAP for complete financial statements. In the opinion of management, all adjustments considered necessary for a fair presentation have been included. All such adjustments are of a normal recurring nature unless disclosed otherwise. Operating results for the nine months ended September 30, 2019 are not necessarily indicative of the results that may be expected for the year ending December 31, 2019.

The balance sheet as of December 31, 2018 has been derived from our audited financial statements as of that date. For further information, refer to our financial statements and notes thereto included in our annual report on Form 10-K for the year ended December 31, 2018.

Reclassifications

Effective January 1, 2019, we revised our reportable segments to reflect a new reportable segment — renewable diesel. The renewable diesel segment includes the operations of Diamond Green Diesel Holdings LLC (DGD), our consolidated joint venture as discussed in Note 8, which were transferred from the refining segment. Also effective January 1, 2019, we no longer have a VLP segment, and we now include the operations of Valero Energy Partners LP and its consolidated subsidiaries (VLP) in our refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation. See Note 2 regarding our merger with VLP, which occurred on January 10, 2019, and Note 11 for segment information.

Certain prior year amounts in the consolidated statement of cash flows have been reclassified to conform to the 2019 presentation.

Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates. On an ongoing basis, we review our estimates based on currently available information. Changes in facts and circumstances may result in revised estimates.

Leases

Background

We adopted the provisions of Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 842, “Leases,” (Topic 842) on January 1, 2019, as described below in “Accounting Pronouncements Adopted on January 1, 2019.” Accordingly, our lease accounting policy has been revised to reflect the adoption of this standard.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Revised Policy

We evaluate if a contract is or contains a lease at inception of the contract. If we determine that a contract is or contains a lease, we recognize a right-of-use (ROU) asset and lease liability at the commencement date of the lease based on the present value of lease payments over the lease term. The present value of the lease payments is determined by using the implicit rate when readily determinable, or if not, our incremental borrowing rate for a term similar to the duration of the lease based on information available at the commencement date. Lease terms include options to extend or terminate the lease when it is reasonably certain that we will exercise those options.

We recognize ROU assets and lease liabilities for leasing arrangements with terms greater than one year. Except for the marine transportation asset class, we account for lease and non-lease components in a contract as a single lease component for all classes of underlying assets. Our marine transportation contracts include non-lease components such as maintenance and crew costs. We allocate the consideration in these contracts based on pricing information provided by the third-party broker.

Expense for an operating lease is recognized as a single lease cost on a straight-line basis over the lease term and reflected in the appropriate income statement line item based on the leased asset's function. Amortization expense of a finance lease ROU asset is recognized on a straight-line basis over the lesser of the useful life of the leased asset or the lease term and is reflected in "depreciation and amortization expense." Interest expense is incurred based on the carrying value of the lease liability and is reflected in "interest and debt expense, net of capitalized interest."

Accounting Pronouncements Adopted on January 1, 2019

Topic 842

As previously noted, we adopted the provisions of Topic 842 on January 1, 2019. Topic 842 increases the transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. Topic 842 supersedes previous lease accounting requirements under FASB ASC Topic 840, "Leases," (Topic 840). We adopted Topic 842 using the optional transition method that permits us to apply the new disclosure requirements beginning in 2019 and continue to present comparative period information as required under Topic 840; however, we did not have a cumulative-effect adjustment to the opening balance of retained earnings at the date of adoption.

In addition, we elected the transition practical expedient package that permits us to not reassess our prior conclusions about lease identification, lease classification, and initial direct costs under the new standard, as well as the practical expedient that permits us to not assess existing land easements under the new standard. See "Leases" above for a discussion of our accounting policy affected by our adoption of Topic 842. Also see Note 4 for information on our leases.

In preparation for the adoption of Topic 842, we enhanced our contracting and lease evaluation systems and related processes, and we developed a new lease accounting system to capture our leases and support the required disclosures. We integrated our lease accounting system with our general ledger and modified our related procurement and payment processes.

Adoption of this standard resulted in (i) the recognition of ROU assets and lease liabilities for our operating leases of \$1.3 billion, (ii) the derecognition of existing assets under construction of \$539 million related to

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

a build-to-suit lease arrangement with respect to the MVP Terminal (see Note 6 under “*Commitments—MVP Terminal*”), and (iii) the presentation of new disclosures about our leasing activities beginning in the first quarter of 2019. Adoption of this standard did not impact our results of operations or liquidity, and our accounting for finance leases is substantially unchanged.

Other

In addition to the adoption of Topic 842 discussed above, we adopted the following Accounting Standards Update (ASU) during the nine months ended September 30, 2019. Our adoption of this ASU did not affect our financial statements or related disclosures.

ASU	Adoption Date	Basis of Adoption
2017-12 Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities	January 1, 2019	Cumulative effect

Accounting Pronouncements Not Yet Adopted

The following ASUs have not yet been adopted and are not expected to have a material impact on our financial statements or related disclosures.

ASU	Expected Adoption Date	Basis of Adoption
2016-13 Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments	January 1, 2020	Cumulative effect
2018-15 Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	January 1, 2020	Prospectively
2018-17 Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities	January 1, 2020	Cumulative effect

2. MERGER AND ACQUISITION

Merger with VLP

On January 10, 2019, we completed our acquisition of all of the outstanding publicly held common units of VLP pursuant to a definitive Agreement and Plan of Merger (Merger Agreement, and together with the transactions contemplated thereby, the Merger Transaction) with VLP. Upon completion of the Merger Transaction, each outstanding publicly held common unit was converted into the right to receive \$42.25 per common unit in cash without any interest thereon, and all such publicly traded common units were automatically canceled and ceased to exist. Upon completion of the Merger Transaction, we paid aggregate merger consideration of \$950 million, which was funded with available cash on hand.

Prior to the completion of the Merger Transaction, we consolidated the financial statements of VLP (see Note 8) and reflected noncontrolling interests on our balance sheet for the portion of VLP’s partners’ capital held by VLP’s public common unitholders. Upon completion of the Merger Transaction, VLP became our indirect wholly owned subsidiary and, as a result, we no longer reflect noncontrolling interests on our balance

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

sheet with respect to VLP. In addition, we no longer attribute a portion of VLP's net income to noncontrolling interests. Because we had a controlling financial interest in VLP before the Merger Transaction and retained our controlling financial interest in VLP after the Merger Transaction, the change in our ownership interest in VLP as a result of the merger was accounted for as an equity transaction. Accordingly, we did not recognize a gain or loss on the Merger Transaction.

Peru Acquisition

On May 14, 2018, we acquired 100 percent of the issued and outstanding equity interests in Pure Biofuels del Peru S.A.C. (Pure Biofuels) from Pegasus Capital Advisors L.P. and various minority equity holders. Pure Biofuels markets refined petroleum products through its logistics assets in Peru. This acquisition, which is referred to as the Peru Acquisition, was accounted for as a business acquisition.

We paid \$466 million from available cash on hand, of which \$130 million was for working capital. During the third and fourth quarters of 2018, we recognized immaterial adjustments to the preliminary amounts recorded for the Peru Acquisition with a corresponding adjustment to goodwill due to the completion of an independent appraisal in the fourth quarter of 2018. The assets acquired and the liabilities assumed were recognized at their acquisition-date fair values, as disclosed in Note 2 of Notes to Consolidated Financial Statements included in our annual report on Form 10-K for the year ended December 31, 2018.

3. INVENTORIES

Inventories consisted of the following (in millions):

	September 30, 2019	December 31, 2018
Refinery feedstocks	\$ 2,051	\$ 2,265
Refined petroleum products and blendstocks	3,746	3,653
Ethanol feedstocks and products	253	298
Renewable diesel feedstocks and products	53	52
Materials and supplies	273	264
Inventories	<u>\$ 6,376</u>	<u>\$ 6,532</u>

As of September 30, 2019 and December 31, 2018, the replacement cost (market value) of last-in, first-out (LIFO) inventories exceeded their LIFO carrying amounts by \$2.6 billion and \$1.5 billion, respectively. Our non-LIFO inventories accounted for \$1.1 billion of our total inventories as of September 30, 2019 and December 31, 2018.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

4. LEASES

General

We have entered into long-term leasing arrangements for the right to use various classes of underlying assets as follows:

- *Pipelines, Terminals, and Tanks* includes facilities and equipment used in the storage, transportation, production, and sale of refinery feedstock, refined petroleum product, and corn inventories;
- *Marine Transportation* includes time charters for ocean-going tankers and coastal vessels;
- *Rail Transportation* includes railcars and related storage facilities;
- *Feedstock Processing Equipment* includes machinery, equipment, and various facilities used in our refining, ethanol, and renewable diesel operations;
- *Energy and Gases* includes facilities and equipment related to industrial gases and power used in our operations;
- *Real Estate* includes land and rights-of-way associated with our refineries and pipelines, as well as office facilities; and
- *Other* includes equipment primarily used at our corporate offices, such as printers and copiers.

In addition to fixed lease payments, some arrangements contain provisions for variable lease payments. Certain leases for pipelines, terminals, and tanks provide for variable lease payments based on, among other things, throughput volumes in excess of a base amount. Certain marine transportation leases contain provisions for payments that are contingent on usage. Additionally, if the rental increases are not scheduled in the lease, such as an increase based on subsequent changes in the index or rate, those rents are considered variable lease payments. In all instances, variable lease payments are recognized in the period in which the obligation for those payments is incurred.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Lease Costs and Other Supplemental Information

In accordance with Topic 842, our total lease cost comprises costs that are included in our income statement, as well as costs capitalized as part of an item of property, plant, and equipment or inventory. Total lease cost by class of underlying asset was as follows (in millions):

	Pipelines, Terminals, and Tanks	Transportation		Feedstock Processing Equipment	Energy and Gases	Real Estate	Other	Total
		Marine	Rail					
Three months ended September 30, 2019:								
Finance lease cost:								
Amortization of ROU assets	\$ 12	\$ —	\$ —	\$ 2	\$ —	\$ —	\$ —	\$ 14
Interest on lease liabilities	13	—	—	—	—	—	—	13
Operating lease cost	46	39	14	4	3	7	1	114
Variable lease cost	20	4	—	1	—	1	—	26
Short-term lease cost	1	13	—	8	—	—	—	22
Sublease income	—	(8)	—	—	—	(1)	—	(9)
Total lease cost	<u>\$ 92</u>	<u>\$ 48</u>	<u>\$ 14</u>	<u>\$ 15</u>	<u>\$ 3</u>	<u>\$ 7</u>	<u>\$ 1</u>	<u>\$ 180</u>

**Nine months ended
September 30, 2019:**

Finance lease cost:								
Amortization of ROU assets	\$ 32	\$ —	\$ —	\$ 4	\$ 2	\$ —	\$ —	\$ 38
Interest on lease liabilities	35	—	—	1	2	—	—	38
Operating lease cost	140	107	38	16	7	21	3	332
Variable lease cost	53	21	—	1	—	1	—	76
Short-term lease cost	8	39	—	22	—	—	—	69
Sublease income	—	(24)	—	—	—	(3)	—	(27)
Total lease cost	<u>\$ 268</u>	<u>\$ 143</u>	<u>\$ 38</u>	<u>\$ 44</u>	<u>\$ 11</u>	<u>\$ 19</u>	<u>\$ 3</u>	<u>\$ 526</u>

In accordance with Topic 840, “rental expense, net of sublease rental income” was as follows (in millions):

	Three Months Ended September 30, 2018	Nine Months Ended September 30, 2018
Minimum rental expense	\$ 126	\$ 377
Contingent rental expense	5	14
Total rental expense	131	391
Less sublease rental income	8	24
Rental expense, net of sublease rental income	<u>\$ 123</u>	<u>\$ 367</u>

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table presents additional information related to our operating and finance leases (in millions, except for lease terms and discount rates):

	September 30, 2019	
	Operating Leases	Finance Leases
Supplemental balance sheet information:		
ROU assets, net reflected in the following balance sheet line items:		
Property, plant, and equipment, net	\$ —	\$ 787
Deferred charges and other assets, net	1,338	—
Total ROU assets, net	<u>\$ 1,338</u>	<u>\$ 787</u>
Current lease liabilities reflected in the following balance sheet line items:		
Current portion of debt and finance lease obligations	\$ —	\$ 41
Accrued expenses	333	—
Noncurrent lease liabilities reflected in the following balance sheet line items:		
Debt and finance lease obligations, less current portion	—	744
Other long-term liabilities	970	—
Total lease liabilities	<u>\$ 1,303</u>	<u>\$ 785</u>
Other supplemental information:		
Weighted-average remaining lease term	7.7 years	20.0 years
Weighted-average discount rate	5.0%	5.2%

Supplemental cash flow information related to our operating and finance leases is presented in Note 12.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Maturity Analysis

The remaining minimum lease payments due under our long-term leases were as follows (in millions):

	September 30, 2019		December 31, 2018	
	Operating Leases	Finance Leases	Operating Leases	Capital Leases
2019 (a)	\$ 108	\$ 22	\$ 359	\$ 69
2020	349	87	245	65
2021	236	85	178	62
2022	183	85	146	64
2023	150	89	123	65
Thereafter	598	1,078	514	957
Total undiscounted lease payments	1,624	1,446	\$ 1,565	1,282
Less amount associated with discounting	321	661		676
Total lease liabilities	\$ 1,303	\$ 785		\$ 606

(a) The amounts as of September 30, 2019 are for the remaining three months of 2019.

Future Lease Commencement

As described and defined in Note 6, we have a terminaling agreement with MVP to utilize the MVP Terminal upon completion of phase two, which is expected to occur in late 2019. We expect to recognize an ROU asset and lease liability of approximately \$1.1 billion in 2020 in connection with this agreement.

5. DEBT

Public Debt

During the nine months ended September 30, 2019, the following activity occurred:

- We issued \$1.0 billion of 4.00 percent Senior Notes due April 1, 2029 (4.00 percent Senior Notes). Proceeds from this debt issuance totaled \$992 million before deducting the underwriting discount and other debt issuance costs. The proceeds were used to redeem our 6.125 percent Senior Notes due February 1, 2020 (6.125 percent Senior Notes) for \$871 million, or 102.48 percent of stated value, which includes an early redemption fee of \$21 million that is reflected in “other income, net” in our statement of income for the nine months ended September 30, 2019.
- In connection with the completion of the Merger Transaction as described in Note 2, Valero entered into a guarantee agreement to fully and unconditionally guarantee the prompt payment, when due, of any amount owed to the holders of VLP’s 4.375 percent Senior Notes due December 15, 2026 and 4.5 percent Senior Notes due March 15, 2028. See Note 15 for condensed consolidating financial statements.

During the nine months ended September 30, 2018, the following activity occurred:

- We issued \$750 million of 4.35 percent Senior Notes due June 1, 2028. Proceeds from this debt issuance totaled \$749 million before deducting the underwriting discount and other debt issuance

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

costs. The proceeds were used to redeem our 9.375 percent Senior Notes due March 15, 2019 (9.375 percent Senior Notes) for \$787 million, or 104.9 percent of stated value, which included an early redemption fee of \$37 million that is reflected in “other income, net” in our statement of income for the nine months ended September 30, 2018.

- VLP issued \$500 million of 4.5 percent Senior Notes due March 15, 2028. Proceeds from this debt issuance totaled \$498 million before deducting the underwriting discount and other debt issuance costs. The proceeds were available only to the operations of VLP and were used to repay the outstanding balance of \$410 million on the VLP Revolver (defined below) and \$85 million of VLP’s notes payable to us, which were eliminated in consolidation.

Other Debt

During the nine months ended September 30, 2018, we retired \$137 million of debt assumed in connection with the Peru Acquisition with available cash on hand.

Credit Facilities

Summary of Credit Facilities

We had outstanding borrowings, letters of credit issued, and availability under our credit facilities as follows (amounts in millions and currency in U.S. dollars, except as noted):

			September 30, 2019			
	Facility Amount	Maturity Date	Outstanding Borrowings	Letters of Credit Issued (a)	Availability	
Committed facilities:						
Valero Revolver	\$ 4,000	March 2024	\$ —	\$ 34	\$ 3,966	
Canadian Revolver (b)	C\$ 150	November 2019	C\$ —	C\$ 5	C\$ 145	
Accounts receivable sales facility	\$ 1,300	July 2020	\$ 100	n/a	\$ 1,200	
Letter of credit facility (c)	\$ 100	November 2019	n/a	\$ —	\$ 100	
Committed facilities of VIE (d):						
IEnova Revolver	\$ 340	February 2028	\$ 257	n/a	\$ 83	
Uncommitted facilities:						
Letter of credit facilities	n/a	n/a	n/a	\$ 129	n/a	

(a) Letters of credit issued as of September 30, 2019 expire at various times in 2019 through 2020.

(b) The Canadian Revolver was amended in November 2019 to extend the maturity date from November 2019 to November 2020.

(c) The letter of credit facility was amended in November 2019 to reduce the facility from \$100 million to \$50 million and to extend the maturity date from November 2019 to November 2020.

(d) Creditors of our VIE do not have recourse against us.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Valero Revolver

In March 2019, we amended our revolving credit facility (the Valero Revolver) to increase the borrowing capacity from \$3 billion to \$4 billion and to extend the maturity date from November 2020 to March 2024. The Valero Revolver also provides for the issuance of letters of credit of up to \$2.4 billion.

VLP Revolver

As of December 31, 2018, VLP had a \$750 million senior unsecured revolving credit facility (the VLP Revolver) with a group of lenders that was scheduled to mature in November 2020. However, on January 10, 2019, in connection with the completion of the Merger Transaction as described in Note 2, the VLP Revolver was terminated.

Accounts Receivable Sales Facility

During the nine months ended September 30, 2019, we sold and repaid \$900 million of eligible receivables under our accounts receivable sales facility. As of September 30, 2019 and December 31, 2018, the variable interest rate on the accounts receivable sales facility was 2.7836 percent and 3.0618 percent, respectively.

IEnova Revolver

During the nine months ended September 30, 2019 and 2018, Central Mexico Terminals (as described in Note 8) borrowed \$148 million and \$71 million, respectively, and had no repayments under a combined \$340 million unsecured revolving credit facility (IEnova Revolver) with IEnova (defined in Note 8). As of September 30, 2019 and December 31, 2018, the variable interest rate was 5.969 percent and 6.046 percent, respectively.

Other Disclosures

“Interest and debt expense, net of capitalized interest” is comprised of the following (in millions):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Interest and debt expense	\$ 133	\$ 134	\$ 405	\$ 417
Less capitalized interest	22	23	70	61
Interest and debt expense, net of capitalized interest	<u>\$ 111</u>	<u>\$ 111</u>	<u>\$ 335</u>	<u>\$ 356</u>

6. COMMITMENTS AND CONTINGENCIES

Commitments

MVP Terminal

We have a 50 percent membership interest in MVP Terminalling, LLC (MVP), a Delaware limited liability company formed in September 2017 with a subsidiary of Magellan Midstream Partners LP (Magellan), to construct, own, and operate the Magellan Valero Pasadena marine terminal (MVP Terminal) located adjacent to the Houston Ship Channel in Pasadena, Texas. Construction of phases one and two of the project began in 2017 with a total estimated cost of approximately \$840 million, of which we have committed to contribute 50 percent (approximately \$420 million). The project could expand up to four phases with a total project cost of approximately \$1.4 billion if warranted by additional demand and agreed to by Magellan and us.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Since inception, we have contributed \$362 million to MVP, of which \$115 million was contributed during the nine months ended September 30, 2019.

Concurrent with the formation of MVP, we entered into a terminaling agreement with MVP to utilize the MVP Terminal upon completion of phase two, which is expected to occur in late 2019. The terminaling agreement has an initial term of 12 years with two five-year automatic renewals, and year-to-year renewals thereafter.

Prior to our adoption of Topic 842 as described in Note 1, we were considered the accounting owner of the MVP Terminal during the construction period due to our membership interest in MVP and because we determined that the terminaling agreement was a capital lease. Accordingly, as of December 31, 2018, we had recorded an asset of \$539 million in property, plant, and equipment representing 100 percent of the construction costs incurred by MVP, as well as capitalized interest incurred by us, and a long-term liability of \$292 million payable to Magellan. The amounts recorded for the portion of the construction costs associated with the payable to Magellan were noncash investing and financing items, respectively.

On January 1, 2019, as a result of our adoption of Topic 842, we derecognized the asset and liability related to MVP discussed above and recorded our equity investment in MVP of \$247 million, which is included in “deferred charges and other assets, net.” The amounts derecognized are noncash investing and financing items, respectively. As of September 30, 2019, our equity investment in MVP was \$362 million.

Central Texas Pipeline

We committed to a 40 percent undivided interest in a project with a subsidiary of Magellan to jointly build a 135-mile, 20-inch refined petroleum products pipeline with a capacity of up to 150,000 barrels per day from Houston to Hearne, Texas. The pipeline was placed in service in the third quarter of 2019. The cost of our 40 percent undivided interest in the pipeline was \$160 million, of which \$65 million was spent during the nine months ended September 30, 2019.

7. EQUITY

Share Activity

Activity in the number of shares of common stock and treasury stock was as follows (in millions):

	Nine Months Ended September 30,			
	2019		2018	
	Common Stock	Treasury Stock	Common Stock	Treasury Stock
Balance as of beginning of period	673	(256)	673	(240)
Transactions in connection with stock-based compensation plans	—	—	—	(1)
Stock purchases under purchase programs	—	(7)	—	(8)
Balance as of end of period	673	(263)	673	(249)

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Common Stock Dividends

On October 30, 2019, our board of directors declared a quarterly cash dividend of \$0.90 per common share payable on December 11, 2019 to holders of record at the close of business on November 20, 2019.

Accumulated Other Comprehensive Loss

Changes in accumulated other comprehensive loss by component, net of tax, were as follows (in millions):

	Three Months Ended September 30,						
	2019				2018		
	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Gains (Losses) on Cash Flow Hedges	Total	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Total
Balance as of beginning of period	\$ (870)	\$ (481)	\$ 1	\$ (1,350)	\$ (751)	\$ (511)	\$ (1,262)
Other comprehensive income (loss) before reclassifications	(180)	—	1	(179)	20	—	20
Amounts reclassified from accumulated other comprehensive income (loss)	—	2	(2)	—	—	7	7
Other comprehensive income (loss)	(180)	2	(1)	(179)	20	7	27
Balance as of end of period	<u>\$ (1,050)</u>	<u>\$ (479)</u>	<u>\$ —</u>	<u>\$ (1,529)</u>	<u>\$ (731)</u>	<u>\$ (504)</u>	<u>\$ (1,235)</u>

	Nine Months Ended September 30,						
	2019				2018		
	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Gains (Losses) on Cash Flow Hedges	Total	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Total
Balance as of beginning of period	\$ (1,022)	\$ (485)	\$ —	\$ (1,507)	\$ (507)	\$ (433)	\$ (940)
Other comprehensive income (loss) before reclassifications	(28)	—	2	(26)	(224)	—	(224)
Amounts reclassified from accumulated other comprehensive income (loss)	—	6	(2)	4	—	20	20
Other comprehensive income (loss)	(28)	6	—	(22)	(224)	20	(204)
Reclassification of stranded income tax effects of Tax Reform to retained earnings	—	—	—	—	—	(91)	(91)
Balance as of end of period	<u>\$ (1,050)</u>	<u>\$ (479)</u>	<u>\$ —</u>	<u>\$ (1,529)</u>	<u>\$ (731)</u>	<u>\$ (504)</u>	<u>\$ (1,235)</u>

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. VARIABLE INTEREST ENTITIES

Consolidated VIEs

We consolidate a VIE when we have a variable interest in an entity for which we are the primary beneficiary. As of September 30, 2019, our significant consolidated VIEs included:

- DGD, a joint venture with a subsidiary of Darling Ingredients Inc., which owns and operates a plant that processes animal fats, used cooking oils, and other vegetable oils into renewable diesel; and
- Central Mexico Terminals, which is a collective group of three subsidiaries of Infraestructura Energetica Nova, S.A.B. de C.V. (IEnova), a Mexican company and subsidiary of Semptra Energy, a U.S. public company. We have terminaling agreements with Central Mexico Terminals that represent variable interests. We do not have an ownership interest in Central Mexico Terminals.

The VIEs' assets can only be used to settle their own obligations and the VIEs' creditors have no recourse to our assets. We do not provide financial guarantees to our VIEs. Although we have provided credit facilities to some of our VIEs in support of their construction or acquisition activities, these transactions are eliminated in consolidation. Our financial position, results of operations, and cash flows are impacted by our consolidated VIEs' performance, net of intercompany eliminations, to the extent of our ownership interest in each VIE.

The following tables present summarized balance sheet information for the significant assets and liabilities of our VIEs, which are included in our balance sheets (in millions).

	September 30, 2019			
	DGD	Central Mexico Terminals	Other	Total
Assets				
Cash and cash equivalents	\$ 74	\$ —	\$ 23	\$ 97
Other current assets	110	26	94	230
Property, plant, and equipment, net	646	284	107	1,037
Liabilities				
Current liabilities, including current portion of debt and finance lease obligations	\$ 40	\$ 307	\$ 19	\$ 366
Debt and finance lease obligations, less current portion	1	—	31	32

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	December 31, 2018				
	VLP (a)	DGD	Central Mexico Terminals	Other	Total
Assets					
Cash and cash equivalents	\$ 152	\$ 65	\$ —	\$ 18	\$ 235
Other current assets	2	112	20	64	198
Property, plant, and equipment, net	1,409	576	156	113	2,254
Liabilities					
Current liabilities, including current portion of debt and finance lease obligations	\$ 27	\$ 28	\$ 118	\$ 9	\$ 182
Debt and finance lease obligations, less current portion	990	—	—	34	1,024

(a) Prior to the completion of the Merger Transaction with VLP on January 10, 2019 as discussed in Note 2, VLP was a publicly traded master limited partnership that we had determined was a VIE. VLP was formed by us to own, operate, develop, and acquire crude oil and refined petroleum products pipelines, terminals, and other transportation and logistics assets. As of December 31, 2018, we owned a 66.2 percent limited partner interest and a 2.0 percent general partner interest in VLP, and public unitholders owned a 31.8 percent limited partner interest. Upon completion of the Merger Transaction, VLP became our indirect wholly owned subsidiary and, as a result, was no longer a VIE.

Non-Consolidated VIEs

We hold variable interests in VIEs that have not been consolidated because we are not considered the primary beneficiary. These non-consolidated VIEs are not material to our financial position or results of operations and are accounted for as equity investments.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. EMPLOYEE BENEFIT PLANS

The components of net periodic benefit cost related to our defined benefit plans were as follows (in millions):

	Pension Plans		Other Postretirement Benefit Plans	
	2019	2018	2019	2018
Three months ended September 30:				
Service cost	\$ 29	\$ 33	\$ 1	\$ 2
Interest cost	25	22	2	2
Expected return on plan assets	(41)	(40)	—	—
Amortization of:				
Net actuarial (gain) loss	10	16	—	(1)
Prior service credit	(5)	(5)	(2)	(2)
Special charges	—	2	—	—
Net periodic benefit cost	<u>\$ 18</u>	<u>\$ 28</u>	<u>\$ 1</u>	<u>\$ 1</u>
Nine months ended September 30:				
Service cost	\$ 89	\$ 100	\$ 3	\$ 5
Interest cost	74	68	8	7
Expected return on plan assets	(124)	(122)	—	—
Amortization of:				
Net actuarial (gain) loss	30	49	(2)	(2)
Prior service credit	(14)	(14)	(6)	(8)
Special charges	2	7	1	—
Net periodic benefit cost	<u>\$ 57</u>	<u>\$ 88</u>	<u>\$ 4</u>	<u>\$ 2</u>

The components of net periodic benefit cost other than the service cost component (i.e., the non-service cost components) are included in “other income, net” in the statements of income.

During the nine months ended September 30, 2019 and 2018, we contributed \$120 million and \$132 million, respectively, to our pension plans and \$13 million and \$15 million, respectively, to our other postretirement benefit plans. Of the \$120 million contributed to our pension plans during the nine months ended September 30, 2019, \$85 million was discretionary and was contributed during the third quarter of 2019.

Our expected contribution to our pension plans has increased to approximately \$125 million for 2019 primarily as a result of the discretionary pension contribution discussed above. Our expected contribution of approximately \$21 million to our other postretirement benefit plans during 2019 has not changed.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. EARNINGS PER COMMON SHARE

Earnings per common share were computed as follows (dollars and shares in millions, except per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Earnings per common share:				
Net income attributable to Valero stockholders	\$ 609	\$ 856	\$ 1,362	\$ 2,170
Less income allocated to participating securities	1	2	3	6
Net income available to common stockholders	<u>\$ 608</u>	<u>\$ 854</u>	<u>\$ 1,359</u>	<u>\$ 2,164</u>
Weighted-average common shares outstanding	412	425	415	428
Earnings per common share	<u>\$ 1.48</u>	<u>\$ 2.01</u>	<u>\$ 3.28</u>	<u>\$ 5.05</u>
Earnings per common share – assuming dilution:				
Net income attributable to Valero stockholders	<u>\$ 609</u>	<u>\$ 856</u>	<u>\$ 1,362</u>	<u>\$ 2,170</u>
Weighted-average common shares outstanding	412	425	415	428
Effect of dilutive securities	1	2	1	2
Weighted-average common shares outstanding – assuming dilution	<u>413</u>	<u>427</u>	<u>416</u>	<u>430</u>
Earnings per common share – assuming dilution	<u>\$ 1.48</u>	<u>\$ 2.01</u>	<u>\$ 3.28</u>	<u>\$ 5.05</u>

Participating securities include restricted stock and performance awards granted under our 2011 Omnibus Stock Incentive Plan. Dilutive securities include participating securities as well as outstanding stock options granted under our 2011 Omnibus Stock Incentive Plan.

11. REVENUES AND SEGMENT INFORMATION

Revenue from Contracts with Customers

Disaggregation of Revenue

Revenue is presented in the table below under “*Segment Information*” disaggregated by product because this is the level of disaggregation that management has determined to be beneficial to users of our financial statements.

Receivables from Contracts with Customers

Our receivables from contracts with customers are included in “receivables, net” and totaled \$5.3 billion and \$4.7 billion as of September 30, 2019 and December 31, 2018, respectively.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Remaining Performance Obligations

We have spot and term contracts with customers, the majority of which are spot contracts with no remaining performance obligations. We do not disclose remaining performance obligations for contracts that have terms of one year or less. The transaction price for our remaining term contracts includes a fixed component and variable consideration (i.e., a commodity price), both of which are allocated entirely to a wholly unsatisfied promise to transfer a distinct good that forms part of a single performance obligation. The fixed component is not material and the variable consideration is highly uncertain. Therefore, as of September 30, 2019, we have not disclosed the aggregate amount of the transaction price allocated to our remaining performance obligations.

Segment Information

Effective January 1, 2019, we revised our reportable segments to align with certain changes in how our chief operating decision maker manages and allocates resources to our business. Accordingly, we created a new reportable segment — renewable diesel — because of the growing importance of renewable fuels in the market and the growth of our investments in renewable fuels production. The renewable diesel segment includes the operations of DGD, which were transferred from the refining segment on January 1, 2019. Also effective January 1, 2019, we no longer have a VLP segment, and we include the operations of VLP in our refining segment. This change was made because of the Merger Transaction with VLP, as described in Note 2, and the resulting change in how we manage VLP's operations. We no longer manage VLP as a business but as logistics assets that support the operations of our refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation.

We have three reportable segments — refining, ethanol, and renewable diesel. Each segment is a strategic business unit that offers different products and services by employing unique technologies and marketing strategies and whose operations and operating performance are managed and evaluated separately. Operating performance is measured based on the operating income generated by the segment, which includes revenues and expenses that are directly attributable to the management of the respective segment. Intersegment sales are generally derived from transactions made at prevailing market rates. The following is a description of each segment's business operations.

- The *refining segment* includes the operations of our 15 petroleum refineries, the associated marketing activities, and logistics assets that support our refining operations. The principal products manufactured by our refineries and sold by this segment include gasolines and blendstocks, distillates, and other products.
- The *ethanol segment* includes the operations of our 14 ethanol plants, the associated marketing activities, and logistics assets that support our ethanol operations. The principal products manufactured by our ethanol plants are ethanol and distillers grains. This segment sells some ethanol to the refining segment for blending into gasoline, which is sold to that segment's customers as a finished gasoline product.
- The *renewable diesel segment* includes the operations of DGD, our consolidated joint venture as discussed in Note 8. The principal product manufactured by DGD and sold by this segment is renewable diesel. This segment sells some renewable diesel to the refining segment, which is then sold to that segment's customers.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Operations that are not included in any of the reportable segments are included in the corporate category.

The following tables reflect information about our operating income (loss) by reportable segment (in millions):

	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Three months ended September 30, 2019:					
Revenues:					
Revenues from external customers	\$ 26,145	\$ 891	\$ 212	\$ 1	\$ 27,249
Intersegment revenues	2	57	50	(109)	—
Total revenues	26,147	948	262	(108)	27,249
Cost of sales:					
Cost of materials and other	23,432	847	164	(108)	24,335
Operating expenses (excluding depreciation and amortization expense reflected below)	1,100	121	18	—	1,239
Depreciation and amortization expense	518	23	15	—	556
Total cost of sales	25,050	991	197	(108)	26,130
Other operating expenses	10	—	—	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	217	217
Depreciation and amortization expense	—	—	—	11	11
Operating income (loss) by segment	\$ 1,087	\$ (43)	\$ 65	\$ (228)	\$ 881
Three months ended September 30, 2018:					
Revenues:					
Revenues from external customers	\$ 29,894	\$ 864	\$ 90	\$ 1	\$ 30,849
Intersegment revenues	5	68	15	(88)	—
Total revenues	29,899	932	105	(87)	30,849
Cost of sales:					
Cost of materials and other	26,928	776	85	(88)	27,701
Operating expenses (excluding depreciation and amortization expense reflected below)	1,058	116	19	—	1,193
Depreciation and amortization expense	479	19	6	—	504
Total cost of sales	28,465	911	110	(88)	29,398
Other operating expenses	10	—	—	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	209	209
Depreciation and amortization expense	—	—	—	13	13
Operating income (loss) by segment	\$ 1,424	\$ 21	\$ (5)	\$ (221)	\$ 1,219

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Nine months ended September 30, 2019:					
Revenues:					
Revenues from external customers	\$ 77,109	\$ 2,648	\$ 686	\$ 2	\$ 80,445
Intersegment revenues	12	162	174	(348)	—
Total revenues	77,121	2,810	860	(346)	80,445
Cost of sales:					
Cost of materials and other	69,769	2,396	577	(346)	72,396
Operating expenses (excluding depreciation and amortization expense reflected below)	3,197	378	54	—	3,629
Depreciation and amortization expense	1,539	68	38	—	1,645
Total cost of sales	74,505	2,842	669	(346)	77,670
Other operating expenses	13	1	—	—	14
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	625	625
Depreciation and amortization expense	—	—	—	39	39
Operating income (loss) by segment	\$ 2,603	\$ (33)	\$ 191	\$ (664)	\$ 2,097
Nine months ended September 30, 2018:					
Revenues:					
Revenues from external customers	\$ 85,371	\$ 2,625	\$ 304	\$ 3	\$ 88,303
Intersegment revenues	20	156	103	(279)	—
Total revenues	85,391	2,781	407	(276)	88,303
Cost of sales:					
Cost of materials and other	77,195	2,279	122	(279)	79,317
Operating expenses (excluding depreciation and amortization expense reflected below)	3,057	336	46	—	3,439
Depreciation and amortization expense	1,423	57	19	—	1,499
Total cost of sales	81,675	2,672	187	(279)	84,255
Other operating expenses	41	—	—	—	41
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	695	695
Depreciation and amortization expense	—	—	—	39	39
Operating income by segment	\$ 3,675	\$ 109	\$ 220	\$ (731)	\$ 3,273

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The following table provides a disaggregation of revenues from external customers for our principal products by reportable segment (in millions).

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Refining:				
Gasolines and blendstocks	\$ 10,978	\$ 12,660	\$ 31,882	\$ 35,803
Distillates	12,861	13,963	38,254	40,866
Other product revenues	2,306	3,271	6,973	8,702
Total refining revenues	26,145	29,894	77,109	85,371
Ethanol:				
Ethanol	714	695	2,108	2,092
Distillers grains	177	169	540	533
Total ethanol revenues	891	864	2,648	2,625
Renewable diesel:				
Renewable diesel	212	90	686	304
Corporate – other revenues	1	1	2	3
Revenues	\$ 27,249	\$ 30,849	\$ 80,445	\$ 88,303

Total assets by reportable segment were as follows (in millions):

	September 30, 2019	December 31, 2018
Refining	\$ 45,646	\$ 43,488
Ethanol	1,617	1,691
Renewable diesel	878	787
Corporate and eliminations	3,088	4,189
Total assets	\$ 51,229	\$ 50,155

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. SUPPLEMENTAL CASH FLOW INFORMATION

In order to determine net cash provided by operating activities, net income is adjusted by, among other things, changes in current assets and current liabilities as follows (in millions):

	Nine Months Ended September 30,	
	2019	2018
Decrease (increase) in current assets:		
Receivables, net	\$ (669)	\$ (1,307)
Inventories	126	(1,134)
Prepaid expenses and other	373	(65)
Increase (decrease) in current liabilities:		
Accounts payable	914	1,890
Accrued expenses	(92)	(168)
Taxes other than income taxes payable	(25)	(32)
Income taxes payable	101	(358)
Changes in current assets and current liabilities	<u>\$ 728</u>	<u>\$ (1,174)</u>

Cash flows related to interest and income taxes were as follows (in millions):

	Nine Months Ended September 30,	
	2019	2018
Interest paid in excess of amount capitalized, including interest on finance leases	\$ 303	\$ 344
Income taxes paid (received), net	(184)	1,116

Supplemental cash flow information related to our operating and finance leases was as follows (in millions):

	Nine Months Ended September 30, 2019	
	Operating Leases	Finance Leases
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows	\$ 329	\$ 38
Investing cash flows	1	—
Financing cash flows	—	24
Changes in lease balances resulting from new and modified leases (a)	1,673	221

(a) Includes noncash activity of \$1.3 billion for ROU assets for operating leases recorded on January 1, 2019 upon adoption of Topic 842.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Noncash investing and financing activities during the nine months ended September 30, 2019 also included the derecognition of the property, plant, and equipment and long-term liability related to previous owner accounting and the recognition of our investment in joint venture associated with a build-to-suit lease arrangement as described in Note 6.

Noncash investing and financing activities during the nine months ended September 30, 2018 included the recognition of terminal assets and related obligation under owner accounting as described in Note 6.

13. FAIR VALUE MEASUREMENTS

Recurring Fair Value Measurements

The following tables present information (in millions) about our assets and liabilities recognized at their fair values in our balance sheets categorized according to the fair value hierarchy of the inputs utilized by us to determine the fair values as of September 30, 2019 and December 31, 2018.

We have elected to offset the fair value amounts recognized for multiple similar derivative contracts executed with the same counterparty, including any related cash collateral assets or obligations as shown below; however, fair value amounts by hierarchy level are presented in the following tables on a gross basis. We have no derivative contracts that are subject to master netting arrangements that are reflected gross on the balance sheet.

	September 30, 2019									
	Fair Value Hierarchy			Total Gross Fair Value	Effect of Counter- party Netting	Effect of Cash Collateral Netting	Net Carrying Value on Balance Sheet	Cash Collateral Paid or Received Not Offset		
	Level 1	Level 2	Level 3							
Assets:										
Commodity derivative contracts	\$ 634	\$ —	\$ —	\$ 634	\$ (620)	\$ (9)	\$ 5	\$ —		
Physical purchase contracts	—	2	—	2	n/a	n/a	2	n/a		
Foreign currency contracts	2	—	—	2	n/a	n/a	2	n/a		
Investments of certain benefit plans	62	—	9	71	n/a	n/a	71	n/a		
Total	\$ 698	\$ 2	\$ 9	\$ 709	\$ (620)	\$ (9)	\$ 80			
Liabilities:										
Commodity derivative contracts	\$ 729	\$ —	\$ —	\$ 729	\$ (620)	\$ (109)	\$ —	\$ (50)		
Environmental credit obligations	—	3	—	3	n/a	n/a	3	n/a		
Physical purchase contracts	—	4	—	4	n/a	n/a	4	n/a		
Foreign currency contracts	6	—	—	6	n/a	n/a	6	n/a		
Total	\$ 735	\$ 7	\$ —	\$ 742	\$ (620)	\$ (109)	\$ 13			

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2018

	Fair Value Hierarchy			Total Gross Fair Value	Effect of Counter- party Netting	Effect of Cash Collateral Netting	Net Carrying Value on Balance Sheet	Cash Collateral Paid or Received Not Offset
	Level 1	Level 2	Level 3					
Assets:								
Commodity derivative contracts	\$ 2,792	\$ —	\$ —	\$ 2,792	\$ (2,669)	\$ (34)	\$ 89	\$ —
Foreign currency contracts	4	—	—	4	n/a	n/a	4	n/a
Investments of certain benefit plans	60	—	9	69	n/a	n/a	69	n/a
Total	<u>\$ 2,856</u>	<u>\$ —</u>	<u>\$ 9</u>	<u>\$ 2,865</u>	<u>\$ (2,669)</u>	<u>\$ (34)</u>	<u>\$ 162</u>	
Liabilities:								
Commodity derivative contracts	\$ 2,681	\$ —	\$ —	\$ 2,681	\$ (2,669)	\$ (12)	\$ —	\$ (136)
Environmental credit obligations	—	13	—	13	n/a	n/a	13	n/a
Physical purchase contracts	—	5	—	5	n/a	n/a	5	n/a
Foreign currency contracts	1	—	—	1	n/a	n/a	1	n/a
Total	<u>\$ 2,682</u>	<u>\$ 18</u>	<u>\$ —</u>	<u>\$ 2,700</u>	<u>\$ (2,669)</u>	<u>\$ (12)</u>	<u>\$ 19</u>	

A description of our assets and liabilities recognized at fair value along with the valuation methods and inputs we used to develop their fair value measurements are as follows:

- Commodity derivative contracts consist primarily of exchange-traded futures, which are used to reduce the impact of price volatility on our results of operations and cash flows as discussed in Note 14. These contracts are measured at fair value using a market approach based on quoted prices from the commodity exchange and are categorized in Level 1 of the fair value hierarchy.
- Physical purchase contracts represent the fair value of fixed-price corn purchase contracts. The fair values of these purchase contracts are measured using a market approach based on quoted prices from the commodity exchange or an independent pricing service and are categorized in Level 2 of the fair value hierarchy.
- Investments of certain benefit plans consist of investment securities held by trusts for the purpose of satisfying a portion of our obligations under certain U.S. nonqualified benefit plans. The plan assets categorized in Level 1 of the fair value hierarchy are measured at fair value using a market approach based on quoted prices from national securities exchanges. The plan assets categorized in Level 3 of the fair value hierarchy represent insurance contracts, the fair value of which is provided by the insurer.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

- Foreign currency contracts consist of foreign currency exchange and purchase contracts and foreign currency swap agreements related to our international operations to manage our exposure to exchange rate fluctuations on transactions denominated in currencies other than the local (functional) currencies of our operations. These contracts are valued based on quoted foreign currency exchange rates and are categorized in Level 1 of the fair value hierarchy.
- Environmental credit obligations represent our liability for the purchase of (i) biofuel credits (primarily Renewable Identification Numbers (RINs) in the U.S.) needed to satisfy our obligation to blend biofuels into the products we produce and (ii) emission credits under the *California Global Warming Solutions Act* (the California cap-and-trade system, also known as AB 32) and similar programs (collectively, the cap-and-trade systems). To the degree we are unable to blend biofuels (such as ethanol and biodiesel) at percentages required under the biofuel programs, we must purchase biofuel credits to comply with these programs. Under the cap-and-trade systems, we must purchase emission credits to comply with these systems. The liability for environmental credits is based on our deficit for such credits as of the balance sheet date, if any, after considering any credits acquired or under contract, and is equal to the product of the credits deficit and the market price of these credits as of the balance sheet date. The environmental credit obligations are categorized in Level 2 of the fair value hierarchy and are measured at fair value using the market approach based on quoted prices from an independent pricing service.

There were no transfers into or out of Level 3 for assets and liabilities held as of September 30, 2019 and December 31, 2018 that were measured at fair value on a recurring basis.

There was no significant activity during the three and nine months ended September 30, 2019 and 2018 related to the fair value amounts categorized in Level 3 as of September 30, 2019 and December 31, 2018.

Nonrecurring Fair Value Measurements

There were no assets or liabilities that were measured at fair value on a nonrecurring basis as of September 30, 2019 and December 31, 2018.

Other Financial Instruments

Financial instruments that we recognize in our balance sheets at their carrying amounts are shown in the following table along with their associated fair values (in millions):

	Fair Value Hierarchy	September 30, 2019		December 31, 2018	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial assets:					
Cash and cash equivalents	Level 1	\$ 2,137	\$ 2,137	\$ 2,982	\$ 2,982
Financial liabilities:					
Debt (excluding finance leases)	Level 2	8,788	10,336	8,503	8,986

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. PRICE RISK MANAGEMENT ACTIVITIES

General

We are exposed to market risks primarily related to the volatility in the price of commodities, foreign currency exchange rates, and the price of credits needed to comply with various government and regulatory programs. We enter into derivative instruments to manage some of these risks, including derivative instruments related to the various commodities we purchase or produce, and foreign currency exchange and purchase contracts, as described below under “*Risk Management Activities by Type of Risk*.” These derivative instruments are recorded as either assets or liabilities measured at their fair values (see Note 13), as summarized below under “*Fair Values of Derivative Instruments*.” The effect of these derivative instruments on our income is summarized below under “*Effect of Derivative Instruments on Income*.”

Risk Management Activities by Type of Risk

Commodity Price Risk

We are exposed to market risks related to the volatility in the price of crude oil, refined petroleum products (primarily gasoline and distillate), renewable diesel, grain (primarily corn), soybean oil, and natural gas used in our operations. To reduce the impact of price volatility on our results of operations and cash flows, we use commodity derivative instruments, such as futures and options. Our positions in commodity derivative instruments are monitored and managed on a daily basis by our risk control group to ensure compliance with our stated risk management policy that has been approved by our board of directors.

We primarily use commodity derivative instruments as cash flow hedges and economic hedges. Our objective for entering into each type of hedge is described below.

- *Cash flow hedges* – The objective of our cash flow hedges is to lock in the price of forecasted (i) feedstock, refined petroleum product, or natural gas purchases, or (ii) refined petroleum product or renewable diesel sales at existing market prices that we deem favorable.
- *Economic hedges* – Our objectives for holding economic hedges are to (i) manage price volatility in certain feedstock and refined petroleum product inventories and fixed-price purchase contracts, and (ii) lock in the price of forecasted feedstock, refined petroleum product, or natural gas purchases, or refined petroleum product or renewable diesel sales at existing market prices that we deem favorable.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of September 30, 2019, we had the following outstanding commodity derivative instruments that were used as cash flow hedges and economic hedges, as well as commodity derivative instruments related to the physical purchase of corn at a fixed price. The information presents the notional volume of outstanding contracts by type of instrument and year of maturity (volumes in thousands of barrels, except corn contracts that are presented in thousands of bushels).

	Notional Contract Volumes by Year of Maturity	
	2019	2020
Derivatives designated as cash flow hedges:		
Renewable diesel:		
Futures – long	906	73
Futures – short	2,571	242
Derivatives designated as economic hedges:		
Crude oil and refined petroleum products:		
Futures – long	136,760	2,849
Futures – short	134,196	3,063
Options – long	16,634	—
Options – short	15,987	—
Corn:		
Futures – long	71,555	1,540
Futures – short	88,825	10,345
Physical contracts – long	20,368	8,831

Foreign Currency Risk

We are exposed to exchange rate fluctuations on transactions related to our international operations that are denominated in currencies other than the local (functional) currencies of our operations. To manage our exposure to these exchange rate fluctuations, we use foreign currency contracts. These contracts are not designated as hedging instruments for accounting purposes and therefore are classified as economic hedges. As of September 30, 2019, we had foreign currency contracts to purchase \$436 million of U.S. dollars, \$1.8 billion of U.S. dollar equivalent Canadian dollars, and \$150 million of U.S. dollar equivalent pounds sterling. All of these commitments matured on or before October 31, 2019.

Environmental Compliance Program Price Risk

We are exposed to market risk related to the volatility in the price of credits needed to comply with various governmental and regulatory environmental compliance programs. To manage this risk, we enter into contracts to purchase these credits when prices are deemed favorable. Some of these contracts are derivative instruments; however, we elect the normal purchase exception and do not record these contracts at their fair values. Certain of these programs require us to blend biofuels into the products we produce, and we are subject to such programs in most of the countries in which we operate. These countries set annual quotas for the percentage of biofuels that must be blended into the motor fuels consumed in these countries. As a producer of motor fuels from petroleum, we are obligated to blend biofuels into the products we produce at

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

a rate that is at least equal to the applicable quota. To the degree we are unable to blend at the applicable rate, we must purchase biofuel credits (primarily RINs in the U.S.). We are exposed to the volatility in the market price of these credits, and we manage that risk by purchasing biofuel credits when prices are deemed favorable. The cost of meeting our obligations under these compliance programs was \$69 million and \$94 million for the three months ended September 30, 2019 and 2018, respectively, and \$227 million and \$431 million for the nine months ended September 30, 2019 and 2018, respectively. These amounts are reflected in cost of materials and other.

Fair Values of Derivative Instruments

The following tables provide information about the fair values of our derivative instruments as of September 30, 2019 and December 31, 2018 (in millions) and the line items in the balance sheets in which the fair values are reflected. See Note 13 for additional information related to the fair values of our derivative instruments.

As indicated in Note 13, we net fair value amounts recognized for multiple similar derivative contracts executed with the same counterparty under master netting arrangements, including cash collateral assets and obligations. The following tables, however, are presented on a gross asset and gross liability basis, which results in the reflection of certain assets in liability accounts and certain liabilities in asset accounts.

	Balance Sheet Location	September 30, 2019		December 31, 2018	
		Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Derivatives designated as hedging instruments:					
Commodity contracts	Receivables, net	\$ 6	\$ 6	\$ —	\$ —
Derivatives not designated as hedging instruments:					
Commodity contracts	Receivables, net	\$ 628	\$ 723	\$ 2,792	\$ 2,681
Physical purchase contracts	Inventories	2	4	—	5
Foreign currency contracts	Receivables, net	2	—	4	—
Foreign currency contracts	Accrued expenses	—	6	—	1
Total		\$ 632	\$ 733	\$ 2,796	\$ 2,687

Market Risk

Our price risk management activities involve the receipt or payment of fixed price commitments into the future. These transactions give rise to market risk, which is the risk that future changes in market conditions may make an instrument less valuable. We closely monitor and manage our exposure to market risk on a daily basis in accordance with policies approved by our board of directors. Market risks are monitored by our risk control group to ensure compliance with our stated risk management policy. We do not require any collateral or other security to support derivative instruments into which we enter. We also do not have any derivative instruments that require us to maintain a minimum investment-grade credit rating.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Effect of Derivative Instruments on Income

The following table provides information about the gain (loss) recognized in income on our derivative instruments and the line items in the statements of income in which such gains (losses) are reflected (in millions).

Derivatives Not Designated as Hedging Instruments	Location of Gain (Loss) Recognized in Income on Derivatives	Three Months Ended September 30,		Nine Months Ended September 30,	
		2019	2018	2019	2018
Commodity contracts	Revenues	\$ (1)	\$ —	\$ 4	\$ —
Commodity contracts	Cost of materials and other	(26)	(98)	(25)	(125)
Foreign currency contracts	Cost of materials and other	9	(7)	2	7
Foreign currency contracts	Other income, net	(19)	11	36	(6)

15. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

In connection with the completion of the Merger Transaction as described in Note 2, Valero Energy Corporation, the parent company, entered into a guarantee agreement to fully and unconditionally guarantee the prompt payment, when due, of the following debt issued by Valero Energy Partners LP, an indirect wholly owned subsidiary of Valero Energy Corporation, that was outstanding as of September 30, 2019:

- 4.375 percent Senior Notes due December 15, 2026; and
- 4.5 percent Senior Notes due March 15, 2028.

The following condensed consolidating financial information is provided as an alternative to providing separate financial statements for Valero Energy Partners LP, which has no independent assets or operations. The financial position, results of operations, and cash flows of Valero Energy Partners LP's wholly owned subsidiaries are included in "Other Non-Guarantor Subsidiaries." The accounts for all companies reflected herein are presented using the equity method of accounting for investments in subsidiaries.

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Balance Sheet
September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	\$ 209	\$ —	\$ 1,928	\$ —	\$ 2,137
Receivables, net	—	—	7,994	—	7,994
Receivables from affiliates	4,396	—	12,406	(16,802)	—
Inventories	—	—	6,376	—	6,376
Prepaid expenses and other	64	—	462	—	526
Total current assets	4,669	—	29,166	(16,802)	17,033
Property, plant and equipment, at cost	—	—	43,539	—	43,539
Accumulated depreciation	—	—	(14,649)	—	(14,649)
Property, plant and equipment, net	—	—	28,890	—	28,890
Investment in affiliates	36,327	2,566	383	(39,276)	—
Deferred charges and other assets, net	552	—	4,754	—	5,306
Total assets	\$ 41,548	\$ 2,566	\$ 63,193	\$ (56,078)	\$ 51,229
LIABILITIES AND EQUITY					
Current liabilities:					
Current portion of debt and finance lease obligations	\$ —	\$ —	\$ 402	\$ —	\$ 402
Accounts payable	—	—	9,504	—	9,504
Accounts payable to affiliates	11,223	1,183	4,396	(16,802)	—
Accrued expenses	155	7	719	—	881
Taxes other than income taxes payable	—	—	1,175	—	1,175
Income taxes payable	83	—	85	—	168
Total current liabilities	11,461	1,190	16,281	(16,802)	12,130
Debt and finance lease obligations, less current portion	7,094	991	1,085	—	9,170
Deferred income tax liabilities	—	2	4,918	—	4,920
Other long-term liabilities	1,886	—	1,535	—	3,421
Equity:					
Stockholders' equity:					
Common stock	7	—	1	(1)	7
Additional paid-in capital	6,818	—	9,765	(9,765)	6,818
Treasury stock, at cost	(15,472)	—	—	—	(15,472)
Retained earnings	31,283	—	30,286	(30,286)	31,283
Partners' equity	—	383	—	(383)	—
Accumulated other comprehensive loss	(1,529)	—	(1,159)	1,159	(1,529)
Total stockholders' equity	21,107	383	38,893	(39,276)	21,107
Noncontrolling interests	—	—	481	—	481
Total equity	21,107	383	39,374	(39,276)	21,588
Total liabilities and equity	\$ 41,548	\$ 2,566	\$ 63,193	\$ (56,078)	\$ 51,229

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Balance Sheet
December 31, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
ASSETS					
Current assets:					
Cash and cash equivalents	\$ 291	\$ 152	\$ 2,539	\$ —	\$ 2,982
Receivables, net	—	—	7,345	—	7,345
Receivables from affiliates	4,369	2	10,684	(15,055)	—
Inventories	—	—	6,532	—	6,532
Prepaid expenses and other	466	—	355	(5)	816
Total current assets	5,126	154	27,455	(15,060)	17,675
Property, plant and equipment, at cost	—	—	42,473	—	42,473
Accumulated depreciation	—	—	(13,625)	—	(13,625)
Property, plant and equipment, net	—	—	28,848	—	28,848
Investment in affiliates	34,696	2,267	(321)	(36,642)	—
Long-term notes receivable from affiliates	285	—	—	(285)	—
Deferred charges and other assets, net	572	1	3,059	—	3,632
Total assets	\$ 40,679	\$ 2,422	\$ 59,041	\$ (51,987)	\$ 50,155
LIABILITIES AND EQUITY					
Current liabilities:					
Current portion of debt and finance lease obligations	\$ —	\$ —	\$ 238	\$ —	\$ 238
Accounts payable	14	—	8,580	—	8,594
Accounts payable to affiliates	9,847	837	4,370	(15,054)	—
Accrued expenses	155	7	468	—	630
Accrued expenses to affiliates	—	1	—	(1)	—
Taxes other than income taxes payable	—	—	1,213	—	1,213
Income taxes payable	53	1	—	(5)	49
Total current liabilities	10,069	846	14,869	(15,060)	10,724
Debt and finance lease obligations, less current portion	6,955	990	926	—	8,871
Long-term notes payable to affiliates	—	285	—	(285)	—
Deferred income tax liabilities	—	2	4,960	—	4,962
Other long-term liabilities	1,988	—	879	—	2,867
Equity:					
Stockholders' equity:					
Common stock	7	—	1	(1)	7
Additional paid-in capital	7,048	—	9,754	(9,754)	7,048
Treasury stock, at cost	(14,925)	—	—	—	(14,925)
Retained earnings	31,044	—	28,305	(28,305)	31,044
Partners' equity	—	299	—	(299)	—
Accumulated other comprehensive loss	(1,507)	—	(1,097)	1,097	(1,507)
Total stockholders' equity	21,667	299	36,963	(37,262)	21,667
Noncontrolling interests	—	—	444	620	1,064
Total equity	21,667	299	37,407	(36,642)	22,731
Total liabilities and equity	\$ 40,679	\$ 2,422	\$ 59,041	\$ (51,987)	\$ 50,155

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Income
Three Months Ended September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 27,249	\$ —	\$ 27,249
Cost of sales:					
Cost of materials and other	—	—	24,335	—	24,335
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	1,239	—	1,239
Depreciation and amortization expense	—	—	556	—	556
Total cost of sales	—	—	26,130	—	26,130
Other operating expenses	—	—	10	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	2	—	215	—	217
Depreciation and amortization expense	—	—	11	—	11
Operating income (loss)	(2)	—	883	—	881
Equity in earnings of subsidiaries	740	112	100	(952)	—
Other income, net	54	—	158	(178)	34
Interest and debt expense, net of capitalized interest	(230)	(12)	(47)	178	(111)
Income before income tax expense (benefit)	562	100	1,094	(952)	804
Income tax expense (benefit)	(47)	—	212	—	165
Net income	609	100	882	(952)	639
Less: Net income attributable to noncontrolling interests	—	—	30	—	30
Net income attributable to stockholders	\$ 609	\$ 100	\$ 852	\$ (952)	\$ 609

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Income
Three Months Ended September 30, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 30,849	\$ —	\$ 30,849
Cost of sales:					
Cost of materials and other	—	—	27,701	—	27,701
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	1,193	—	1,193
Depreciation and amortization expense	—	—	504	—	504
Total cost of sales	—	—	29,398	—	29,398
Other operating expenses	—	—	10	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	3	—	206	—	209
Depreciation and amortization expense	—	—	13	—	13
Operating income (loss)	(3)	—	1,222	—	1,219
Equity in earnings of subsidiaries	1,005	85	53	(1,143)	—
Other income, net	65	—	161	(184)	42
Interest and debt expense, net of capitalized interest	(230)	(15)	(50)	184	(111)
Income before income tax expense (benefit)	837	70	1,386	(1,143)	1,150
Income tax expense (benefit)	(19)	—	295	—	276
Net income	856	70	1,091	(1,143)	874
Less: Net income attributable to noncontrolling interests	—	—	1	17	18
Net income attributable to stockholders	\$ 856	\$ 70	\$ 1,090	\$ (1,160)	\$ 856

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Income
Nine Months Ended September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 80,445	\$ —	\$ 80,445
Cost of sales:					
Cost of materials and other	—	—	72,396	—	72,396
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	3,629	—	3,629
Depreciation and amortization expense	—	—	1,645	—	1,645
Total cost of sales	—	—	77,670	—	77,670
Other operating expenses	—	—	14	—	14
General and administrative expenses (excluding depreciation and amortization expense reflected below)	3	—	622	—	625
Depreciation and amortization expense	—	—	39	—	39
Operating income (loss)	(3)	—	2,100	—	2,097
Equity in earnings of subsidiaries	1,763	299	261	(2,323)	—
Other income, net	138	—	462	(532)	68
Interest and debt expense, net of capitalized interest	(693)	(36)	(138)	532	(335)
Income before income tax expense (benefit)	1,205	263	2,685	(2,323)	1,830
Income tax expense (benefit)	(157)	—	533	—	376
Net income	1,362	263	2,152	(2,323)	1,454
Less: Net income attributable to noncontrolling interests	—	—	90	2	92
Net income attributable to stockholders	\$ 1,362	\$ 263	\$ 2,062	\$ (2,325)	\$ 1,362

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Income
Nine Months Ended September 30, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 88,303	\$ —	\$ 88,303
Cost of sales:					
Cost of materials and other	—	—	79,317	—	79,317
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	3,439	—	3,439
Depreciation and amortization expense	—	—	1,499	—	1,499
Total cost of sales	—	—	84,255	—	84,255
Other operating expenses	—	—	41	—	41
General and administrative expenses (excluding depreciation and amortization expense reflected below)	4	—	691	—	695
Depreciation and amortization expense	—	—	39	—	39
Operating income (loss)	(4)	—	3,277	—	3,273
Equity in earnings of subsidiaries	2,634	241	152	(3,027)	—
Other income, net	163	1	455	(531)	88
Interest and debt expense, net of capitalized interest	(681)	(41)	(165)	531	(356)
Income before income tax expense (benefit)	2,112	201	3,719	(3,027)	3,005
Income tax expense (benefit)	(58)	1	731	—	674
Net income	2,170	200	2,988	(3,027)	2,331
Less: Net income attributable to noncontrolling interests	—	—	113	48	161
Net income attributable to stockholders	\$ 2,170	\$ 200	\$ 2,875	\$ (3,075)	\$ 2,170

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Comprehensive Income
Three Months Ended September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 609	\$ 100	\$ 882	\$ (952)	\$ 639
Other comprehensive loss:					
Foreign currency translation adjustment	(180)	—	(163)	163	(180)
Net gain on pension and other postretirement benefits	3	—	—	—	3
Net loss on cash flow hedges	(2)	—	(4)	2	(4)
Other comprehensive loss before income tax benefit	(179)	—	(167)	165	(181)
Income tax benefit related to items of other comprehensive loss	—	—	(1)	1	—
Other comprehensive loss	(179)	—	(166)	164	(181)
Comprehensive income	430	100	716	(788)	458
Less: Comprehensive income attributable to noncontrolling interests	—	—	28	—	28
Comprehensive income attributable to stockholders	\$ 430	\$ 100	\$ 688	\$ (788)	\$ 430

Condensed Consolidating Statement of Comprehensive Income
Three Months Ended September 30, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 856	\$ 70	\$ 1,091	\$ (1,143)	\$ 874
Other comprehensive income:					
Foreign currency translation adjustment	20	—	2	1	23
Net gain on pension and other postretirement benefits	8	—	—	—	8
Other comprehensive income before income tax expense	28	—	2	1	31
Income tax expense related to items of other comprehensive income	1	—	—	—	1
Other comprehensive income	27	—	2	1	30
Comprehensive income	883	70	1,093	(1,142)	904
Less: Comprehensive income attributable to noncontrolling interests	—	—	4	17	21
Comprehensive income attributable to stockholders	\$ 883	\$ 70	\$ 1,089	\$ (1,159)	\$ 883

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Comprehensive Income
Nine Months Ended September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 1,362	\$ 263	\$ 2,152	\$ (2,323)	\$ 1,454
Other comprehensive loss:					
Foreign currency translation adjustment	(28)	—	(59)	62	(25)
Net gain on pension and other postretirement benefits	8	—	—	—	8
Net gain on cash flow hedges	—	—	1	—	1
Other comprehensive loss before income tax expense	(20)	—	(58)	62	(16)
Income tax expense related to items of other comprehensive loss	2	—	—	—	2
Other comprehensive loss	(22)	—	(58)	62	(18)
Comprehensive income	1,340	263	2,094	(2,261)	1,436
Less: Comprehensive income attributable to noncontrolling interests	—	—	94	2	96
Comprehensive income attributable to stockholders	\$ 1,340	\$ 263	\$ 2,000	\$ (2,263)	\$ 1,340

Condensed Consolidating Statement of Comprehensive Income
Nine Months Ended September 30, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 2,170	\$ 200	\$ 2,988	\$ (3,027)	\$ 2,331
Other comprehensive loss:					
Foreign currency translation adjustment	(224)	—	(190)	191	(223)
Net gain on pension and other postretirement benefits	25	—	1	(1)	25
Other comprehensive loss before income tax expense	(199)	—	(189)	190	(198)
Income tax expense related to items of other comprehensive loss	5	—	—	—	5
Other comprehensive loss	(204)	—	(189)	190	(203)
Comprehensive income	1,966	200	2,799	(2,837)	2,128
Less: Comprehensive income attributable to noncontrolling interests	—	—	114	48	162
Comprehensive income attributable to stockholders	\$ 1,966	\$ 200	\$ 2,685	\$ (2,885)	\$ 1,966

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Cash Flows
Nine Months Ended September 30, 2019
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by (used in) operating activities	\$ 15	\$ (35)	\$ 4,203	\$ (360)	\$ 3,823
Cash flows from investing activities:					
Capital expenditures (excluding VIEs)	—	—	(1,179)	—	(1,179)
Capital expenditures of VIEs:					
DGD	—	—	(91)	—	(91)
Other VIEs	—	—	(139)	—	(139)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	—	—	(583)	—	(583)
Deferred turnaround and catalyst cost expenditures of DGD	—	—	(16)	—	(16)
Investments in unconsolidated joint ventures	—	—	(122)	—	(122)
Acquisitions of undivided interests	—	—	(65)	—	(65)
Intercompany investing activities	289	2	(1,533)	1,242	—
Other investing activities, net	—	—	5	—	5
Net cash provided by (used in) investing activities	289	2	(3,723)	1,242	(2,190)
Cash flows from financing activities:					
Proceeds from debt issuances and borrowings (excluding VIEs)	992	—	900	—	1,892
Proceeds from borrowings of VIEs	—	—	148	—	148
Repayments of debt and finance lease obligations (excluding VIEs)	(871)	—	(925)	—	(1,796)
Repayments of debt of VIEs	—	—	(4)	—	(4)
Intercompany financing activities	1,187	160	(105)	(1,242)	—
Purchases of common stock for treasury	(555)	—	—	—	(555)
Common stock dividends	(1,123)	—	(81)	81	(1,123)
Acquisition of VLP publicly held common units	—	—	(950)	—	(950)
Distributions to noncontrolling interests and unitholders of VLP	—	(279)	(57)	279	(57)
Other financing activities, net	(16)	—	(13)	—	(29)
Net cash used in financing activities	(386)	(119)	(1,087)	(882)	(2,474)
Effect of foreign exchange rate changes on cash	—	—	(4)	—	(4)
Net decrease in cash and cash equivalents	(82)	(152)	(611)	—	(845)
Cash and cash equivalents at beginning of period	291	152	2,539	—	2,982
Cash and cash equivalents at end of period	\$ 209	\$ —	\$ 1,928	\$ —	\$ 2,137

VALERO ENERGY CORPORATION
CONDENSED NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Condensed Consolidating Statement of Cash Flows
Nine Months Ended September 30, 2018
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by (used in) operating activities	\$ (824)	\$ (37)	\$ 3,709	\$ (155)	\$ 2,693
Cash flows from investing activities:					
Capital expenditures (excluding VIEs)	—	—	(1,025)	—	(1,025)
Capital expenditures of VIEs:					
DGD	—	—	(143)	—	(143)
Other VIEs	—	—	(89)	—	(89)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	—	—	(641)	—	(641)
Deferred turnaround and catalyst cost expenditures of DGD	—	—	(20)	—	(20)
Investments in unconsolidated joint ventures	—	—	(124)	—	(124)
Peru Acquisition, net of cash acquired	—	—	(466)	—	(466)
Acquisitions of undivided interests	—	—	(181)	—	(181)
Minor acquisitions	—	—	(88)	—	(88)
Intercompany investing activities	590	292	(1,425)	543	—
Other investing activities, net	—	—	9	—	9
Net cash provided by (used in) investing activities	590	292	(4,193)	543	(2,768)
Cash flows from financing activities:					
Proceeds from debt issuances and borrowings (excluding VIEs)	750	498	10	—	1,258
Proceeds from borrowings of VIEs	—	—	71	—	71
Repayments of debt and finance lease obligations (excluding VIEs)	(787)	(410)	(151)	—	(1,348)
Repayments of debt of VIEs	—	—	(4)	—	(4)
Intercompany financing activities	1,435	(94)	(798)	(543)	—
Purchases of common stock for treasury	(1,081)	—	—	—	(1,081)
Common stock dividends	(1,031)	—	(32)	32	(1,031)
Contributions from noncontrolling interests	—	—	32	—	32
Distributions to noncontrolling interests and unitholders of VLP	—	(159)	(27)	123	(63)
Other financing activities, net	2	(4)	(13)	—	(15)
Net cash used in financing activities	(712)	(169)	(912)	(388)	(2,181)
Effect of foreign exchange rate changes on cash	—	—	(43)	—	(43)
Net increase (decrease) in cash and cash equivalents	(946)	86	(1,439)	—	(2,299)
Cash and cash equivalents at beginning of period	1,746	42	4,062	—	5,850
Cash and cash equivalents at end of period	\$ 800	\$ 128	\$ 2,623	\$ —	\$ 3,551

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

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

This Form 10-Q, including without limitation our disclosures below under the heading “OVERVIEW AND OUTLOOK,” 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,” “believe,” “expect,” “plan,” “intend,” “scheduled,” “estimate,” “project,” “projection,” “predict,” “budget,” “forecast,” “goal,” “guidance,” “target,” “could,” “would,” “should,” “will,” “may,” and similar expressions.

These forward-looking statements include, among other things, statements regarding:

- future refining segment margins, including gasoline and distillate margins;
- future ethanol segment margins;
- future renewable diesel segment margins;
- expectations regarding feedstock costs, including crude oil differentials, and operating expenses;
- anticipated levels of crude oil and refined petroleum product inventories;
- our anticipated level of capital investments, including deferred turnaround and catalyst cost expenditures, capital expenditures for environmental and other purposes, and joint venture investments, and the effect of those capital investments on our results of operations;
- anticipated trends in the supply of and demand for crude oil and other feedstocks and refined petroleum products in the regions where we operate, as well as globally;
- expectations regarding environmental, tax, and other regulatory initiatives; and
- the effect of general economic and other conditions on refining, ethanol, and renewable diesel industry fundamentals.

We based our forward-looking statements on our current expectations, estimates, and projections about ourselves and our industry. We caution that these statements are not guarantees of future performance and involve risks, uncertainties, and assumptions that we cannot predict. In addition, we based many of these forward-looking statements on assumptions about future events that may prove to be inaccurate. Accordingly, our actual results may differ materially from the future performance that we have expressed or forecast in the forward-looking statements. Differences between actual results and any future performance suggested in these forward-looking statements could result from a variety of factors, including the following:

- acts of terrorism aimed at either our facilities or other facilities that could impair our ability to produce or transport refined petroleum products or receive feedstocks;
- political and economic conditions in nations that produce crude oil or consume refined petroleum products;
- demand for, and supplies of, refined petroleum products (such as gasoline, diesel, jet fuel, and petrochemicals), ethanol, and renewable diesel;
- demand for, and supplies of, crude oil and other feedstocks;
- the ability of the members of the Organization of Petroleum Exporting Countries to agree on and to maintain crude oil price and production controls;
- the level of consumer demand, including seasonal fluctuations;
- refinery overcapacity or undercapacity;
- our ability to successfully integrate any acquired businesses into our operations;

- the actions taken by competitors, including both pricing and adjustments to refining capacity in response to market conditions;
- the level of competitors' imports into markets that we supply;
- accidents, unscheduled shutdowns, or other catastrophes affecting our refineries, machinery, pipelines, equipment, and information systems, or those of our suppliers or customers;
- changes in the cost or availability of transportation for feedstocks and refined petroleum products;
- the price, availability, and acceptance of alternative fuels and alternative-fuel vehicles;
- the levels of government subsidies for alternative fuels;
- the volatility in the market price of biofuel credits (primarily RINs needed to comply with the U.S. federal Renewable Fuel Standard) and greenhouse gas (GHG) emission credits needed to comply with the requirements of various GHG emission programs;
- delay of, cancellation of, or failure to implement planned capital projects and realize the various assumptions and benefits projected for such projects or cost overruns in constructing such planned capital projects;
- earthquakes, hurricanes, tornadoes, and irregular weather, which can unforeseeably affect the price or availability of natural gas, crude oil, grain and other feedstocks, refined petroleum products, ethanol, and renewable diesel;
- rulings, judgments, or settlements in litigation or other legal or regulatory matters, including unexpected environmental remediation costs, in excess of any reserves or insurance coverage;
- legislative or regulatory action, including the introduction or enactment of legislation or rulemakings by governmental authorities, including tariffs and tax and environmental regulations, such as those implemented under the California cap-and-trade system and similar programs, and the U.S. Environmental Protection Agency's regulation of GHGs, which may adversely affect our business or operations;
- changes in the credit ratings assigned to our debt securities and trade credit;
- changes in currency exchange rates, including the value of the Canadian dollar, the pound sterling, the euro, the Mexican peso, and the Peruvian sol relative to the U.S. dollar;
- overall economic conditions, including the stability and liquidity of financial markets; and
- other factors generally described in the "Risk Factors" section included in our annual report on Form 10-K for the year ended December 31, 2018 that is incorporated by reference herein.

Any one of these factors, or a combination of these factors, could materially affect our future results of operations and whether any forward-looking statements ultimately prove to be accurate. Our forward-looking statements are not guarantees of future performance, and actual results and future performance may differ materially from those suggested in any forward-looking statements. We do not intend to update these statements unless we are required by the securities laws to do so.

All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the foregoing. We undertake no obligation to publicly release any revisions to any such forward-looking statements that may be made to reflect events or circumstances after the date of this report or to reflect the occurrence of unanticipated events.

This Form 10-Q includes references to financial measures that are not defined under U.S. GAAP. These non-GAAP financial measures include adjusted operating income (including adjusted operating income for each of our reportable segments, as applicable) and refining, ethanol, and renewable diesel segment margin. We have included these non-GAAP financial measures to help facilitate the comparison of operating results between periods. See the accompanying financial tables in "RESULTS OF OPERATIONS" and note (e) to the accompanying tables for reconciliations of these non-GAAP financial measures to the most directly

comparable U.S. GAAP financial measures. Also in note (e), we disclose the reasons why we believe our use of the non-GAAP financial measures provides useful information.

OVERVIEW AND OUTLOOK

Overview

Third Quarter Results

For the third quarter of 2019, we reported net income attributable to Valero stockholders of \$609 million compared to \$856 million for the third quarter of 2018, which represents a decrease of \$247 million. This decrease is primarily due to lower operating income between the periods, net of the resulting decrease in income tax expense, as described below.

Operating income for the third quarter of 2019 was \$881 million compared to \$1.2 billion for the third quarter of 2018, which represents a decrease of \$338 million. Excluding the adjustments to operating income reflected in the tables on page 52, adjusted operating income also decreased \$338 million in the third quarter of 2019 compared to the third quarter of 2018.

The \$338 million decrease in adjusted operating income is primarily due to the following:

- *Refining segment.* Refining segment adjusted operating income decreased by \$337 million primarily due to weaker discounts on crude oils and other feedstocks, lower throughput volumes, and higher operating expenses (excluding depreciation and amortization expense), partially offset by improved gasoline and distillate margins. This is more fully described on pages 56 through 58.
- *Ethanol segment.* Ethanol segment operating income decreased by \$64 million primarily due to higher corn prices, partially offset by higher ethanol prices. This is more fully described on page 58.
- *Renewable diesel segment.* Renewable diesel segment operating income increased by \$70 million primarily due to the effect from higher renewable diesel sales volumes and a favorable impact from commodity derivative instruments associated with our price risk management activities. This is more fully described on pages 58 and 59.
- *Corporate.* Corporate costs increased by \$7 million primarily due to increases in certain employee incentive compensation expenses.

First Nine Months Results

For the first nine months of 2019, we reported net income attributable to Valero stockholders of \$1.4 billion compared to \$2.2 billion for the first nine months of 2018, which represents a decrease of \$808 million. This decrease is primarily due to an \$877 million decrease in net income, partially offset by a \$69 million decrease in net income attributable to noncontrolling interests. The decrease in net income attributable to noncontrolling interests is primarily due to the recognition of a blender's tax credit in the first nine months of 2018 of which \$80 million is attributable to the holder of the noncontrolling interest, as described in note (a) on page 66. The decrease in net income was primarily driven by a decrease in operating income between the periods, net of the resulting decrease in income tax expense, as described below.

Operating income for the first nine months of 2019 was \$2.1 billion compared to \$3.3 billion for the first nine months of 2018, which represents a decrease of \$1.2 billion. Excluding the adjustments to operating income reflected in the tables on page 62, adjusted operating income decreased \$1.1 billion in the first nine months of 2019 compared to the first nine months of 2018.

The \$1.1 billion decrease in adjusted operating income is primarily due to the following:

- *Refining segment.* Refining segment adjusted operating income decreased by \$1.1 billion primarily due to lower gasoline margins, weaker discounts on crude oil and other feedstocks, and higher operating expenses (excluding depreciation and amortization expense), partially offset by improved distillate margins. This is more fully described on pages 69 through 71.
- *Ethanol segment.* Ethanol segment adjusted operating income decreased by \$141 million primarily due to higher corn prices and higher operating expenses (excluding depreciation and amortization expense), partially offset by the effect from increased ethanol production volumes. This is more fully described on page 71.
- *Renewable diesel segment.* Renewable diesel segment adjusted operating income increased by \$131 million primarily due to the effect from higher renewable diesel sales volumes, partially offset by higher depreciation and amortization expense. This is more fully described on pages 71 and 72.
- *Corporate.* Adjusted corporate costs increased by \$41 million primarily due to increases in legal and environmental reserves, as well as expenses associated with the Merger Transaction with VLP. This is more fully described on page 72.

Outlook

Below are several factors that have impacted or may impact our results of operations during the fourth quarter of 2019:

- Distillate margins are expected to improve as global demand follows typical seasonal patterns and markets prepare for compliance with the International Maritime Organization's lower bunker fuel sulfur specifications, which are effective January 1, 2020.
- Gasoline margins are expected to decline as domestic demand follows typical seasonal patterns.
- Discounts for medium and heavy sour crude oils are expected to improve as the new bunker fuel sulfur specifications noted above result in lower demand for high sulfur fuel oils, which we expect will compete with sour crude oils as a refining feedstock. Improvement in these discounts has a favorable impact on our refining margins as it lowers our cost of materials.
- Ethanol margins are expected to improve due to an anticipated decrease in corn prices as concerns over U.S. corn supply ease following the fall harvest.
- Renewable diesel margins are expected to remain consistent with current levels.

RESULTS OF OPERATIONS

The following tables highlight our results of operations, our operating performance, and market reference prices that directly impact our operations. In addition, these tables include financial measures that are not defined under U.S. GAAP and represent non-GAAP financial measures. These non-GAAP financial measures are reconciled to their most comparable U.S. GAAP financial measures and include adjusted operating income (including adjusted operating income for each of our reportable segments, as applicable) and refining, ethanol, and renewable diesel segment margin. In note (e) to these tables, we disclose the reasons why we believe our use of non-GAAP financial measures provides useful information.

Effective January 1, 2019, we revised our reportable segments to align with certain changes in how our chief operating decision maker manages and allocates resources to our business. Accordingly, we created a new reportable segment — renewable diesel — because of the growing importance of renewable fuels in the market and the growth of our investments in renewable fuels production. The renewable diesel segment includes the operations of DGD, which were transferred from the refining segment on January 1, 2019. Also effective January 1, 2019, we no longer have a VLP segment, and we include the operations of VLP in our refining segment. This change was made because of the Merger Transaction with VLP, as described in Note 2 of Condensed Notes to Consolidated Financial Statements, and the resulting change in how we manage VLP's operations. We no longer manage VLP as a business but as logistics assets that support the operations of our refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation.

**Third Quarter Results -
Financial Highlights By Segment and Total Company
(millions of dollars)**

Three Months Ended September 30, 2019					
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 26,145	\$ 891	\$ 212	\$ 1	\$ 27,249
Intersegment revenues	2	57	50	(109)	—
Total revenues	26,147	948	262	(108)	27,249
Cost of sales:					
Cost of materials and other	23,432	847	164	(108)	24,335
Operating expenses (excluding depreciation and amortization expense reflected below)	1,100	121	18	—	1,239
Depreciation and amortization expense	518	23	15	—	556
Total cost of sales	25,050	991	197	(108)	26,130
Other operating expenses (b)	10	—	—	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	217	217
Depreciation and amortization expense	—	—	—	11	11
Operating income (loss) by segment	\$ 1,087	\$ (43)	\$ 65	\$ (228)	881
Other income, net (d)					34
Interest and debt expense, net of capitalized interest					(111)
Income before income tax expense					804
Income tax expense					165
Net income					639
Less: Net income attributable to noncontrolling interests					30
Net income attributable to Valero Energy Corporation stockholders					\$ 609

See note references on pages 66 through 68.

**Third Quarter Results -
Financial Highlights By Segment and Total Company (continued)**
(millions of dollars)

Three Months Ended September 30, 2018					
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 29,894	\$ 864	\$ 90	\$ 1	\$ 30,849
Intersegment revenues	5	68	15	(88)	—
Total revenues	29,899	932	105	(87)	30,849
Cost of sales:					
Cost of materials and other	26,928	776	85	(88)	27,701
Operating expenses (excluding depreciation and amortization expense reflected below)	1,058	116	19	—	1,193
Depreciation and amortization expense	479	19	6	—	504
Total cost of sales	28,465	911	110	(88)	29,398
Other operating expenses (b)	10	—	—	—	10
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	209	209
Depreciation and amortization expense	—	—	—	13	13
Operating income (loss) by segment	\$ 1,424	\$ 21	\$ (5)	\$ (221)	1,219
Other income, net (d)					42
Interest and debt expense, net of capitalized interest					(111)
Income before income tax expense					1,150
Income tax expense					276
Net income					874
Less: Net income attributable to noncontrolling interests					18
Net income attributable to Valero Energy Corporation stockholders					\$ 856

See note references on pages 66 through 68.

**Third Quarter Results -
Financial Highlights By Segment and Total Company (continued)**
(millions of dollars)

Three Months Ended September 30, 2019					
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Reconciliation of operating income to adjusted operating income (e)					
Operating income (loss) by segment (see page 50)	\$ 1,087	\$ (43)	\$ 65	\$ (228)	\$ 881
Exclude:					
Other operating expenses (b)	(10)	—	—	—	(10)
Adjusted operating income (loss)	<u>\$ 1,097</u>	<u>\$ (43)</u>	<u>\$ 65</u>	<u>\$ (228)</u>	<u>\$ 891</u>

Three Months Ended September 30, 2018					
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Reconciliation of operating income to adjusted operating income (e)					
Operating income (loss) by segment (see page 51)	\$ 1,424	\$ 21	\$ (5)	\$ (221)	\$ 1,219
Exclude:					
Other operating expenses (b)	(10)	—	—	—	(10)
Adjusted operating income (loss)	<u>\$ 1,434</u>	<u>\$ 21</u>	<u>\$ (5)</u>	<u>\$ (221)</u>	<u>\$ 1,229</u>

See note references on pages 66 through 68.

**Third Quarter Results -
Refining Segment Operating Highlights**
(millions of dollars, except per barrel amounts)

	Three Months Ended September 30,		
	2019	2018	Change
Throughput volumes (thousand barrels per day (BPD))			
Feedstocks:			
Heavy sour crude oil	418	466	(48)
Medium/light sour crude oil	253	424	(171)
Sweet crude oil	1,615	1,527	88
Residuals	238	244	(6)
Other feedstocks	132	144	(12)
Total feedstocks	2,656	2,805	(149)
Blendstocks and other	298	295	3
Total throughput volumes	2,954	3,100	(146)
Yields (thousand BPD)			
Gasolines and blendstocks	1,406	1,478	(72)
Distillates	1,137	1,201	(64)
Other products (f)	438	460	(22)
Total yields	2,981	3,139	(158)
Operating statistics (g)			
Refining margin (e)	\$ 2,715	\$ 2,971	\$ (256)
Adjusted refining operating income (see page 52) (e)	\$ 1,097	\$ 1,434	\$ (337)
Throughput volumes (thousand BPD)	2,954	3,100	(146)
Refining margin per barrel of throughput	\$ 9.99	\$ 10.42	\$ (0.43)
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per barrel of throughput	4.05	3.72	0.33
Depreciation and amortization expense per barrel of throughput	1.90	1.68	0.22
Adjusted refining operating income per barrel of throughput	\$ 4.04	\$ 5.02	\$ (0.98)

See note references on pages 66 through 68.

**Third Quarter Results -
Ethanol Segment Operating Highlights**
(millions of dollars, except per gallon amounts)

	Three Months Ended September 30,		
	2019	2018	Change
Operating statistics (g)			
Ethanol margin (e)	\$ 101	\$ 156	\$ (55)
Ethanol operating income (loss)	\$ (43)	\$ 21	\$ (64)
Production volumes (thousand gallons per day)	4,006	4,069	(63)
Ethanol margin per gallon of production	\$ 0.27	\$ 0.42	\$ (0.15)
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per gallon of production	0.33	0.31	0.02
Depreciation and amortization expense per gallon of production	0.06	0.05	0.01
Ethanol operating income (loss) per gallon of production	\$ (0.12)	\$ 0.06	\$ (0.18)

**Third Quarter Results -
Renewable Diesel Segment Operating Highlights**
(millions of dollars, except per gallon amounts)

	Three Months Ended September 30,		
	2019	2018	Change
Operating statistics (g)			
Renewable diesel margin (e)	\$ 98	\$ 20	\$ 78
Renewable diesel operating income (loss)	\$ 65	\$ (5)	\$ 70
Sales volumes (thousand gallons per day)	638	251	387
Renewable diesel margin per gallon of sales	\$ 1.66	\$ 0.88	\$ 0.78
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per gallon of sales	0.30	0.80	(0.50)
Depreciation and amortization expense per gallon of sales	0.25	0.28	(0.03)
Renewable diesel operating income (loss) per gallon of sales	\$ 1.11	\$ (0.20)	\$ 1.31

See note references on pages 66 through 68.

**Third Quarter Results -
Average Market Reference Prices and Differentials
(dollars per barrel, except as noted)**

	Three Months Ended September 30,		
	2019	2018	Change
Refining			
Feedstocks (dollars per barrel)			
Brent crude oil	\$ 62.08	\$ 75.93	\$ (13.85)
Brent less West Texas Intermediate (WTI) crude oil	5.64	6.23	(0.59)
Brent less Alaska North Slope (ANS) crude oil	(0.99)	0.38	(1.37)
Brent less Louisiana Light Sweet (LLS) crude oil	1.46	1.63	(0.17)
Brent less Argus Sour Crude Index (ASCI) crude oil	3.18	5.12	(1.94)
Brent less Maya crude oil	5.45	9.74	(4.29)
LLS crude oil	60.62	74.30	(13.68)
LLS less ASCI crude oil	1.72	3.49	(1.77)
LLS less Maya crude oil	3.99	8.11	(4.12)
WTI crude oil	56.44	69.70	(13.26)
Natural gas (dollars per million British Thermal Units (MMBtu))			
	2.28	2.96	(0.68)
Products (dollars per barrel, unless otherwise noted)			
U.S. Gulf Coast:			
Conventional Blendstock of Oxygenate Blending (CBOB) gasoline less Brent	6.82	7.08	(0.26)
Ultra-low-sulfur (ULS) diesel less Brent	15.79	13.91	1.88
Propylene less Brent	(19.36)	5.49	(24.85)
CBOB gasoline less LLS	8.28	8.71	(0.43)
ULS diesel less LLS	17.25	15.54	1.71
Propylene less LLS	(17.90)	7.12	(25.02)
U.S. Mid-Continent:			
CBOB gasoline less WTI	15.28	16.68	(1.40)
ULS diesel less WTI	21.38	22.77	(1.39)
North Atlantic:			
CBOB gasoline less Brent	10.11	10.43	(0.32)
ULS diesel less Brent	17.28	15.54	1.74
U.S. West Coast:			
California Reformulated Gasoline Blendstock of Oxygenate Blending (CARBOB) 87 gasoline less ANS	19.31	13.52	5.79
California Air Resources Board (CARB) diesel less ANS	18.38	17.85	0.53
CARBOB 87 gasoline less WTI	25.94	19.37	6.57
CARB diesel less WTI	25.01	23.70	1.31

**Third Quarter Results -
Average Market Reference Prices and Differentials, (continued)**

	Three Months Ended September 30,		
	2019	2018	Change
Ethanol			
Chicago Board of Trade (CBOT) corn (dollars per bushel)	\$ 3.90	\$ 3.53	\$ 0.37
New York Harbor (NYH) ethanol (dollars per gallon)	1.53	1.47	0.06
Renewable diesel			
New York Mercantile Exchange ULS diesel (dollars per gallon)	1.90	2.18	(0.28)
Biodiesel Renewable Identification Number (RIN) (dollars per RIN)	0.46	0.41	0.05
California Low-Carbon Fuel Standard (dollars per metric ton)	198.24	183.62	14.62
CBOT soybean oil (dollars per pound)	0.29	0.28	0.01

Total Company, Corporate, and Other

Revenues decreased \$3.6 billion in the third quarter of 2019 compared to the third quarter of 2018 primarily due to decreases in refined petroleum product prices associated with sales made by our refining segment. This decline in revenues was partially offset by lower cost of sales of \$3.3 billion primarily due to decreases in crude oil and other feedstock costs, resulting in a decrease in operating income of \$338 million in the third quarter of 2019 compared to the third quarter of 2018.

Excluding the adjustments to operating income reflected in the tables on page 52, adjusted operating income also decreased by \$338 million in the third quarter of 2019 compared to the third quarter of 2018. Details regarding the decrease in adjusted operating income between the periods are discussed by segment below.

Income tax expense decreased \$111 million in the third quarter of 2019 compared to the third quarter of 2018 primarily as a result of lower income before income tax expense. Our effective tax rate was 21 percent for the third quarter of 2019 compared to 24 percent for the third quarter of 2018.

Refining Segment Results

Refining segment revenues decreased \$3.8 billion in the third quarter of 2019 compared to the third quarter of 2018 primarily due to decreases in refined petroleum product prices. This decline in refining segment revenues was partially offset by lower cost of sales of \$3.4 billion primarily due to decreases in crude oil and other feedstock costs, resulting in a decrease in refining segment operating income of \$337 million in the third quarter of 2019 compared to the third quarter of 2018.

Excluding the adjustments to refining segment operating income reflected in the tables on page 52, refining segment adjusted operating income also decreased \$337 million in the third quarter of 2019 compared to the third quarter of 2018. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

Refining segment margin, as defined in note (e) to the accompanying tables, decreased \$256 million in the third quarter of 2019 compared to the third quarter of 2018 primarily due to the following:

- *Lower discounts on crude oils.* The market prices for refined petroleum products generally track the price of Brent crude oil, which is a benchmark crude oil, and we benefit when we process crude oils that are priced at a discount to Brent crude oil. While we benefitted from processing these types of crude oils during the third quarter of 2019, that benefit declined compared to the third quarter of 2018. For example, Maya crude oil, a sour crude oil, sold at a \$5.45 per barrel discount to Brent crude oil for the third quarter of 2019 compared to a \$9.74 per barrel discount for the third quarter of 2018, representing an unfavorable decrease of \$4.29 per barrel. Another example is WTI crude oil, a sweet crude oil, which sold at a \$5.64 per barrel discount to Brent crude oil for the third quarter of 2019 compared to a \$6.23 per barrel discount for the third quarter of 2018, representing an unfavorable decrease of \$0.59 per barrel. We estimate that the decrease in the discounts for the crude oils we processed during the third quarter of 2019 compared to the third quarter of 2018 had an unfavorable impact to our refining segment margin of approximately \$297 million.
- *Lower throughput volumes.* Refining throughput volumes decreased by 146,000 BPD in the third quarter of 2019 compared to the third quarter of 2018. We estimate that the decrease in refining throughput volumes had an unfavorable impact to our refining segment margin of approximately \$140 million.
- *Lower discounts on feedstocks other than crude oil.* In addition to crude oil, we utilize other feedstocks, such as natural gas and residuals, in certain of our refining processes. We benefit when we process these other feedstocks that are priced at a discount to Brent crude oil, and while we benefitted from processing these types of feedstocks during the third quarter of 2019, that benefit declined compared to the third quarter of 2018. We estimate that the reduction in the discounts for the other feedstocks that we processed during the third quarter of 2019 had an unfavorable impact to our refining segment margin of approximately \$112 million.
- *Increase in distillate margins.* We experienced an increase in distillate margins during the third quarter of 2019 compared to the third quarter of 2018. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast ULS diesel was \$15.79 per barrel for the third quarter of 2019 compared to \$13.91 per barrel for the third quarter of 2018, representing a favorable increase of \$1.88 per barrel. Another example is the Brent-based benchmark reference margin for North Atlantic ULS diesel which was \$17.28 per barrel for the third quarter of 2019 compared to \$15.54 per barrel for the third quarter of 2018, representing a favorable increase of \$1.74 per barrel. We estimate that the increase in distillate margins per barrel in the third quarter of 2019 compared to the third quarter of 2018 had a favorable impact to our refining segment margin of approximately \$194 million.
- *Increase in gasoline margins.* We also experienced an increase in gasoline margins during the third quarter of 2019 compared to the third quarter of 2018. For example, the ANS-based benchmark reference margin for U.S. West Coast CARBOB gasoline was \$19.31 per barrel for the third quarter of 2019 compared to \$13.52 per barrel for the third quarter of 2018, representing a favorable increase of \$5.79 per barrel. We estimate that the increase in gasoline margins per barrel in the third quarter of 2019 compared to the third quarter of 2018 had a favorable impact to our refining segment margin of approximately \$105 million.
- *Lower costs of biofuel credits.* As more fully described in Note 14 of Condensed Notes to Consolidated Financial Statements, we must purchase biofuel credits in order to meet our biofuel

blending obligation under various government and regulatory compliance programs. The cost of these credits (primarily RINs in the U.S.) decreased by \$25 million from \$94 million for the third quarter of 2018 to \$69 million for the third quarter of 2019.

Refining segment operating expenses (excluding depreciation and amortization expense) increased \$42 million primarily due to an increase in maintenance costs of \$21 million and higher employee related expenses of \$9 million.

Refining segment depreciation and amortization expense associated with our cost of sales increased \$39 million primarily due to an increase in depreciation expense of \$20 million associated with capital projects that were completed and finance leases that commenced in the latter part of 2018 and the first half of 2019, and an increase in refinery turnaround and catalyst amortization expense of \$18 million.

Ethanol Segment Results

Ethanol segment revenues increased \$16 million in the third quarter of 2019 compared to the third quarter of 2018 primarily due to an increase in ethanol prices, partially offset by the effect of a decrease in ethanol sales volumes. This improvement in ethanol segment revenue was outweighed by higher cost of sales of \$80 million, resulting in a decrease in ethanol segment operating income of \$64 million in the third quarter of 2019 compared to the third quarter of 2018. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

Ethanol segment margin, as defined in note (e) to the accompanying tables, decreased \$55 million in the third quarter of 2019 compared to the third quarter of 2018 primarily due to the following:

- *Higher corn prices.* Corn prices were higher in the third quarter of 2019 compared to the third quarter of 2018. For example, the CBOT corn price was \$3.90 per bushel for the third quarter of 2019 compared to \$3.53 per bushel for the third quarter of 2018, representing an unfavorable increase of \$0.37 per bushel. We estimate that the increase in the price of corn had an unfavorable impact to our ethanol segment margin of approximately \$97 million.
- *Higher ethanol prices.* Ethanol prices were higher in the third quarter of 2019 compared to the third quarter of 2018 primarily due to a decrease in domestic ethanol production. For example, the NYH ethanol price was \$1.53 per gallon for the third quarter of 2019 compared to \$1.47 per gallon for the third quarter of 2018, representing an increase of \$0.06 per gallon. We estimate that the increase in the price of ethanol had a favorable impact to our ethanol segment margin of approximately \$39 million.

Ethanol segment operating expenses (excluding depreciation and amortization expense) increased \$5 million primarily due to costs to operate the three ethanol plants acquired from Green Plains in November 2018 of \$20 million, partially offset by lower energy costs of \$10 million and lower chemicals and catalyst expenses of \$4 million incurred by our other ethanol plants.

Ethanol segment depreciation and amortization expenses associated with our cost of sales increased \$4 million primarily due to depreciation expense associated with the three ethanol plants acquired from Green Plains in November 2018.

Renewable Diesel Segment Results

Renewable diesel segment revenues increased \$157 million in the third quarter of 2019 compared to the third quarter of 2018 primarily due to an increase in renewable diesel sales volumes. This improvement in

renewable diesel segment revenues was partially offset by higher cost of sales of \$87 million, resulting in an increase in renewable diesel segment operating income of \$70 million in the third quarter of 2019 compared to the third quarter of 2018. The components of this increase, along with the reasons for the changes in these components, are outlined below.

Renewable diesel segment margin, as defined in note (e) to the accompanying tables, increased \$78 million in the third quarter of 2019 compared to the third quarter of 2018 primarily due to the following:

- *Higher sales volumes.* Renewable diesel sales volumes increased by 387,000 gallons per day in the third quarter of 2019 compared to the third quarter of 2018 due to additional production capacity resulting from the expansion of our renewable diesel production facility (the DGD plant) completed in the third quarter of 2018. We estimate that the increase in sales volumes had a favorable impact to our renewable diesel segment margin of approximately \$54 million.
- *Price risk management activities.* We recognized a hedge gain of \$7 million in the third quarter of 2019 from commodity derivative instruments associated with our price risk management activities compared to a loss of \$8 million in the third quarter of 2018, representing a favorable impact to our renewable diesel segment margin of approximately \$15 million.

Renewable diesel segment depreciation and amortization expense associated with our cost of sales increased \$9 million primarily due to an increase in the DGD plant's turnaround and catalyst amortization expense.

***First Nine Months Results -
Financial Highlights By Segment and Total Company
(millions of dollars)***

	Nine Months Ended September 30, 2019				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 77,109	\$ 2,648	\$ 686	\$ 2	\$ 80,445
Intersegment revenues	12	162	174	(348)	—
Total revenues	77,121	2,810	860	(346)	80,445
Cost of sales:					
Cost of materials and other	69,769	2,396	577	(346)	72,396
Operating expenses (excluding depreciation and amortization expense reflected below)	3,197	378	54	—	3,629
Depreciation and amortization expense	1,539	68	38	—	1,645
Total cost of sales	74,505	2,842	669	(346)	77,670
Other operating expenses (b)	13	1	—	—	14
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	625	625
Depreciation and amortization expense	—	—	—	39	39
Operating income (loss) by segment	\$ 2,603	\$ (33)	\$ 191	\$ (664)	2,097
Other income, net (d)					68
Interest and debt expense, net of capitalized interest					(335)
Income before income tax expense					1,830
Income tax expense					376
Net income					1,454
Less: Net income attributable to noncontrolling interests					92
Net income attributable to Valero Energy Corporation stockholders					\$ 1,362

See note references on pages 66 through 68.

**First Nine Months Results -
Financial Highlights By Segment and Total Company (continued)**
(millions of dollars)

	Nine Months Ended September 30, 2018				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 85,371	\$ 2,625	\$ 304	\$ 3	\$ 88,303
Intersegment revenues	20	156	103	(279)	—
Total revenues	85,391	2,781	407	(276)	88,303
Cost of sales:					
Cost of materials and other (a)	77,195	2,279	122	(279)	79,317
Operating expenses (excluding depreciation and amortization expense reflected below)	3,057	336	46	—	3,439
Depreciation and amortization expense	1,423	57	19	—	1,499
Total cost of sales	81,675	2,672	187	(279)	84,255
Other operating expenses (b)	41	—	—	—	41
General and administrative expenses (excluding depreciation and amortization expense reflected below) (c)	—	—	—	695	695
Depreciation and amortization expense	—	—	—	39	39
Operating income by segment	<u>\$ 3,675</u>	<u>\$ 109</u>	<u>\$ 220</u>	<u>\$ (731)</u>	3,273
Other income, net (d)					88
Interest and debt expense, net of capitalized interest					(356)
Income before income tax expense					3,005
Income tax expense					674
Net income					2,331
Less: Net income attributable to noncontrolling interests (a)					161
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 2,170</u>

See note references on pages 66 through 68.

**First Nine Months Results -
Financial Highlights By Segment and Total Company (continued)**
(millions of dollars)

	Nine Months Ended September 30, 2019				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Reconciliation of operating income to adjusted operating income (e)					
Operating income (loss) by segment (see page 60)	\$ 2,603	\$ (33)	\$ 191	\$ (664)	\$ 2,097
Exclude:					
Other operating expenses (b)	(13)	(1)	—	—	(14)
Adjusted operating income (loss)	<u>\$ 2,616</u>	<u>\$ (32)</u>	<u>\$ 191</u>	<u>\$ (664)</u>	<u>\$ 2,111</u>

	Nine Months Ended September 30, 2018				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Reconciliation of operating income to adjusted operating income (e)					
Operating income by segment (see page 61)	\$ 3,675	\$ 109	\$ 220	\$ (731)	\$ 3,273
Exclude:					
2017 blender's tax credit (a)	10	—	160	—	170
Other operating expenses (b)	(41)	—	—	—	(41)
Environmental reserve adjustments (c)	—	—	—	(108)	(108)
Adjusted operating income	<u>\$ 3,706</u>	<u>\$ 109</u>	<u>\$ 60</u>	<u>\$ (623)</u>	<u>\$ 3,252</u>

See note references on pages 66 through 68.

**First Nine Months Results -
Refining Segment Operating Highlights**
(millions of dollars, except per barrel amounts)

	Nine Months Ended September 30,		
	2019	2018	Change
Throughput volumes (thousand BPD)			
Feedstocks:			
Heavy sour crude oil	416	476	(60)
Medium/light sour crude oil	282	422	(140)
Sweet crude oil	1,548	1,392	156
Residuals	208	233	(25)
Other feedstocks	152	128	24
Total feedstocks	2,606	2,651	(45)
Blendstocks and other	323	326	(3)
Total throughput volumes	2,929	2,977	(48)
Yields (thousand BPD)			
Gasolines and blendstocks	1,393	1,429	(36)
Distillates	1,123	1,135	(12)
Other products (f)	442	451	(9)
Total yields	2,958	3,015	(57)
Operating statistics (g)			
Refining margin (e)	\$ 7,352	\$ 8,186	\$ (834)
Adjusted refining operating income (see page 62) (e)	\$ 2,616	\$ 3,706	\$ (1,090)
Throughput volumes (thousand BPD)	2,929	2,977	(48)
Refining margin per barrel of throughput	\$ 9.19	\$ 10.07	\$ (0.88)
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per barrel of throughput	4.00	3.76	0.24
Depreciation and amortization expense per barrel of throughput	1.92	1.75	0.17
Adjusted refining operating income per barrel of throughput	\$ 3.27	\$ 4.56	\$ (1.29)

See note references on pages 66 through 68.

**First Nine Months Results -
Ethanol Segment Operating Highlights**
(millions of dollars, except per gallon amounts)

	Nine Months Ended September 30,		
	2019	2018	Change
Operating statistics (g)			
Ethanol margin (e)	\$ 414	\$ 502	\$ (88)
Adjusted ethanol operating income (loss) (see page 62) (e)	\$ (32)	\$ 109	\$ (141)
Production volumes (thousand gallons per day)	4,251	4,061	190
Ethanol margin per gallon of production	\$ 0.36	\$ 0.45	\$ (0.09)
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per gallon of production	0.33	0.30	0.03
Depreciation and amortization expense per gallon of production	0.06	0.05	0.01
Adjusted ethanol operating income (loss) per gallon of production	\$ (0.03)	\$ 0.10	\$ (0.13)

**First Nine Months Results -
Renewable Diesel Segment Operating Highlights**
(millions of dollars, except per gallon amounts)

	Nine Months Ended September 30,		
	2019	2018	Change
Operating statistics (g)			
Renewable diesel margin (e)	\$ 283	\$ 125	\$ 158
Adjusted renewable diesel operating income (see page 62) (e)	\$ 191	\$ 60	\$ 131
Sales volumes (thousand gallons per day)	732	334	398
Renewable diesel margin per gallon of sales	\$ 1.41	\$ 1.37	\$ 0.04
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below) per gallon of sales	0.27	0.50	(0.23)
Depreciation and amortization expense per gallon of sales	0.19	0.21	(0.02)
Adjusted renewable diesel operating income per gallon of sales	\$ 0.95	\$ 0.66	\$ 0.29

See note references on pages 66 through 68.

**First Nine Months Results -
Average Market Reference Prices and Differentials
(dollars per barrel, except as noted)**

	Nine Months Ended September 30,		
	2019	2018	Change
Refining			
Feedstocks (dollars per barrel)			
Brent crude oil	\$ 64.74	\$ 72.67	\$ (7.93)
Brent less WTI crude oil	7.70	5.81	1.89
Brent less ANS crude oil	(0.51)	0.47	(0.98)
Brent less LLS crude oil	1.40	1.64	(0.24)
Brent less ASCI crude oil	3.17	5.21	(2.04)
Brent less Maya crude oil	5.57	10.70	(5.13)
LLS crude oil	63.34	71.03	(7.69)
LLS less ASCI crude oil	1.77	3.57	(1.80)
LLS less Maya crude oil	4.17	9.06	(4.89)
WTI crude oil	57.04	66.86	(9.82)
Natural gas (dollars per MMBtu)			
	2.53	3.01	(0.48)
Products (dollars per barrel, unless otherwise noted)			
U.S. Gulf Coast:			
CBOB gasoline less Brent	4.57	7.28	(2.71)
ULS diesel less Brent	14.55	13.72	0.83
Propylene less Brent	(21.57)	(2.62)	(18.95)
CBOB gasoline less LLS	5.97	8.92	(2.95)
ULS diesel less LLS	15.95	15.36	0.59
Propylene less LLS	(20.17)	(0.98)	(19.19)
U.S. Mid-Continent:			
CBOB gasoline less WTI	14.58	15.40	(0.82)
ULS diesel less WTI	22.93	21.54	1.39
North Atlantic:			
CBOB gasoline less Brent	7.16	9.89	(2.73)
ULS diesel less Brent	16.49	15.58	0.91
U.S. West Coast:			
CARBOB 87 gasoline less ANS	16.76	15.05	1.71
CARB diesel less ANS	18.56	17.94	0.62
CARBOB 87 gasoline less WTI	24.97	20.39	4.58
CARB diesel less WTI	26.77	23.28	3.49

**First Nine Months Results -
Average Market Reference Prices and Differentials, (continued)**

	Nine Months Ended September 30,		
	2019	2018	Change
Ethanol			
CBOT corn (dollars per bushel)	\$ 3.85	\$ 3.68	\$ 0.17
NYH ethanol (dollars per gallon)	1.50	1.52	(0.02)
Renewable diesel			
New York Mercantile Exchange ULS diesel (dollars per gallon)	1.94	2.10	(0.16)
Biodiesel RIN (dollars per RIN)	0.45	0.58	(0.13)
California Low-Carbon Fuel Standard (dollars per metric ton)	193.74	160.44	33.30
CBOT soybean oil (dollars per pound)	0.29	0.30	(0.01)

The following notes relate to references on pages 50 through 54 and pages 60 through 64.

- (a) Cost of materials and other for the nine months ended September 30, 2018 includes a benefit of \$170 million for the biodiesel blender's tax credit attributable to volumes blended during 2017. The benefit was recognized in February 2018 because the U.S. legislation authorizing the credit was passed and signed into law in that month. Of the \$170 million pre-tax benefit, \$10 million and \$160 million are included in our refining and renewable diesel segments, respectively, and consequently, \$80 million is attributable to noncontrolling interest and \$90 million is attributable to Valero Energy Corporation stockholders.
- (b) Other operating expenses reflects expenses that are not associated with our cost of sales and primarily includes costs to repair, remediate, and restore our facilities to normal operations following a non-operating event such as a natural disaster or major unplanned outage.
- (c) General and administrative expenses (excluding depreciation and amortization expense) for the nine months ended September 30, 2018 includes a charge of \$108 million for environmental reserve adjustments associated with certain non-operating sites.
- (d) "Other income, net" for the nine months ended September 30, 2019 and 2018 includes a \$22 million charge from the early redemption of \$850 million of our 6.125 percent Senior Notes and a \$38 million charge from the early redemption of \$750 million of our 9.375 percent Senior Notes, respectively.
- (e) We use certain financial measures (as noted below) that are not defined under U.S. GAAP and are considered to be non-GAAP measures.

We have defined these non-GAAP measures and believe they are useful to the external users of our financial statements, including industry analysts, investors, lenders, and rating agencies. We believe these measures are useful to assess our ongoing financial performance because, when reconciled to their most comparable U.S. GAAP measures, they provide improved comparability between periods through the exclusion of certain items that we believe are not indicative of our core operating performance and that may obscure our underlying business results and trends. These non-GAAP measures should not be considered as alternatives to their most comparable U.S. GAAP measures nor should they be considered in isolation or as a substitute for an analysis of our results of operations as reported under U.S. GAAP. In addition, these non-GAAP measures may not be comparable to similarly titled measures used by other companies because we may define them differently, which diminishes their utility.

Non-GAAP measures are as follows:

- **Refining margin** is defined as refining operating income excluding the 2017 blender's tax credit (see note (a)), operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, and other operating expenses, as reflected below.
- **Ethanol margin** is defined as ethanol operating income (loss) excluding operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, and other operating expenses, as reflected below.
- **Renewable diesel margin** is defined as renewable diesel operating income (loss) excluding the 2017 blender's tax credit (see note (a)), operating expenses (excluding depreciation and amortization expense), and depreciation and amortization expense, as reflected below.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Reconciliation of refining operating income to refining margin:				
Refining operating income	\$ 1,087	\$ 1,424	\$ 2,603	\$ 3,675
Exclude:				
2017 blender's tax credit (a)	—	—	—	10
Operating expenses (excluding depreciation and amortization expense reflected below)	(1,100)	(1,058)	(3,197)	(3,057)
Depreciation and amortization expense	(518)	(479)	(1,539)	(1,423)
Other operating expenses (b)	(10)	(10)	(13)	(41)
Refining margin	<u>\$ 2,715</u>	<u>\$ 2,971</u>	<u>\$ 7,352</u>	<u>\$ 8,186</u>

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Reconciliation of ethanol operating income (loss) to ethanol margin:				
Ethanol operating income (loss)	\$ (43)	\$ 21	\$ (33)	\$ 109
Exclude:				
Operating expenses (excluding depreciation and amortization expense reflected below)	(121)	(116)	(378)	(336)
Depreciation and amortization expense	(23)	(19)	(68)	(57)
Other operating expenses (b)	—	—	(1)	—
Ethanol margin	<u>\$ 101</u>	<u>\$ 156</u>	<u>\$ 414</u>	<u>\$ 502</u>

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2019	2018	2019	2018
Reconciliation of renewable diesel operating income (loss) to renewable diesel margin:				
Renewable diesel operating income (loss)	\$ 65	\$ (5)	\$ 191	\$ 220
Exclude:				
2017 blender's tax credit (a)	—	—	—	160
Operating expenses (excluding depreciation and amortization expense reflected below)	(18)	(19)	(54)	(46)
Depreciation and amortization expense	(15)	(6)	(38)	(19)
Renewable diesel margin	<u>\$ 98</u>	<u>\$ 20</u>	<u>\$ 283</u>	<u>\$ 125</u>

- **Adjusted refining operating income** is defined as refining segment operating income excluding the 2017 blender's tax credit (see note (a)) and other operating expenses.
- **Adjusted ethanol operating income (loss)** is defined as ethanol segment operating income (loss) excluding other operating expenses.
- **Adjusted renewable diesel operating income (loss)** is defined as renewable diesel segment operating income (loss) excluding the 2017 blender's tax credit (see note (a)).
- **Adjusted corporate costs** is defined as corporate and eliminations excluding the environmental reserve adjustments associated with certain non-operating sites (see note (c)).

(f) Primarily includes petrochemicals, gas oils, No. 6 fuel oil, petroleum coke, sulfur, and asphalt.

(g) Valero uses certain operating statistics (as noted below) to evaluate performance between comparable periods. Different companies may calculate them in different ways.

Refining segment margin per barrel of throughput and adjusted refining segment operating income per barrel of throughput represents refining segment margin and adjusted refining segment operating income (each as defined in note (e) above) divided by throughput volumes. Ethanol segment margin per gallon of production and adjusted ethanol segment operating income per gallon of production represent ethanol segment margin (as defined in note (e) above) and ethanol segment adjusted operating income divided by production volumes. Renewable diesel segment margin per gallon of sales and adjusted renewable diesel segment operating income per gallon of sales represent renewable diesel segment margin and adjusted renewable diesel segment operating income (each as defined in note (e) above) divided by sales volumes.

Throughput volumes, production volumes, and sales volumes are calculated by multiplying throughput volumes per day, production volumes per day, and sales volumes per day (as provided in the accompanying tables), respectively, by the number of days in the applicable period. We use throughput volumes, production volumes, and sales volumes for the refining segment, ethanol segment, and renewable diesel segment, respectively, due to their general use by others who operate facilities similar to those included in our segments. We believe the use of such volumes results in per unit amounts that are most representative of the product margins generated and the operating costs incurred as a result of our operation of those facilities.

Total Company, Corporate, and Other

Revenues decreased \$7.9 billion in the first nine months of 2019 compared to the first nine months of 2018 primarily due to decreases in refined petroleum product prices associated with sales made by our refining segment. This decline in revenues was partially offset by lower cost of sales of \$6.6 billion primarily due to decreases in crude oil and other feedstock costs and a decrease of \$70 million in general and administrative

expenses (excluding depreciation and amortization expense), resulting in a decrease in operating income of \$1.2 billion in the first nine months of 2019 compared to the first nine months of 2018.

Excluding the adjustments to operating income reflected in the tables on page 62, adjusted operating income was \$2.1 billion for the first nine months of 2019 compared to \$3.2 billion for the first nine months of 2018. Details regarding the \$1.1 billion decrease in adjusted operating income between the periods are discussed by segment below.

“Other income, net” decreased \$20 million in the first nine months of 2019 compared to the first nine months of 2018. This decrease was primarily due to lower interest income of \$24 million and higher foreign currency transaction losses of \$14 million, partially offset by the favorable effect of a \$16 million lower charge for the early redemption of debt between the periods. As more fully described in note (d) to the accompanying tables, we redeemed debt in both the first nine months of 2019 and the first nine months of 2018 and incurred early redemption charges of \$22 million and \$38 million, respectively.

Income tax expense decreased \$298 million in the first nine months of 2019 compared to the first nine months of 2018 primarily as a result of lower income before income tax expense. Our effective tax rate was 21 percent for the first nine months of 2019 compared to 22 percent for the first nine months of 2018.

Net income attributable to noncontrolling interests decreased \$69 million in the first nine months of 2019 compared to the first nine months of 2018 primarily due to the recognition of a blender’s tax credit in the first nine months of 2018 of which \$80 million is attributable to the holder of the noncontrolling interest, as described in note (a) to the accompanying tables.

Refining Segment Results

Refining segment revenues decreased \$8.3 billion in the first nine months of 2019 compared to the first nine months of 2018 primarily due to decreases in refined petroleum product prices. This decline in refining segment revenues was partially offset by lower cost of sales of \$7.2 billion primarily due to decreases in crude oil and other feedstock costs, resulting in a decrease in refining segment operating income of \$1.1 billion in the first nine months of 2019 compared to the first nine months of 2018.

Excluding the adjustments to refining segment operating income reflected in the tables on page 62, refining segment adjusted operating income also decreased \$1.1 billion in the first nine months of 2019 compared to the first nine months of 2018. The components of this decrease, along with reasons for the changes in these components, are outlined below.

Refining segment margin, as defined in note (e) to the accompanying tables, decreased \$834 million in the first nine months of 2019 compared to the first nine months of 2018, primarily due to the following:

- *Decrease in gasoline margins.* We experienced a decrease in gasoline margins during the first nine months of 2019 compared to the first nine months of 2018. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast CBOB gasoline was \$4.57 per barrel for the first nine months of 2019 compared to \$7.28 per barrel for the first nine months of 2018, representing an unfavorable decrease of \$2.71 per barrel. Another example is the Brent-based benchmark reference margin for North Atlantic CBOB gasoline, which was \$7.16 per barrel for the first nine months of 2019 compared to \$9.89 per barrel for the first nine months of 2018, representing an unfavorable decrease of \$2.73 per barrel. We estimate that the decrease in gasoline margins per barrel in the first nine months of 2019 compared to the first nine months of 2018 had an unfavorable impact to our refining segment margin of approximately \$484 million.

- *Lower discounts on feedstocks other than crude oil.* In addition to crude oil, we utilize other feedstocks, such as natural gas and residuals, in certain of our refining processes. We benefit when we process these other feedstocks that are priced at a discount to Brent crude oil, and while we benefitted from processing these types of feedstocks during the first nine months of 2019, that benefit declined compared to the first nine months of 2018. We estimate that the decrease in the discounts for the other feedstocks that we processed during the first nine months of 2019 compared to the first nine months of 2018 had an unfavorable impact to our refining segment margin of approximately \$335 million.
- *Lower discounts on crude oils.* The market prices for refined petroleum products generally track the price of Brent crude oil, which is a benchmark crude oil, and we benefit when we process crude oils that are priced at a discount to Brent crude oil. While we benefitted from processing these types of crude oils during the first nine months of 2019, that benefit declined compared to the first nine months of 2018. For example, Maya crude oil, a heavy sour crude oil, sold at a \$5.57 per barrel discount to Brent crude oil for the first nine months of 2019 compared to a \$10.70 per barrel discount for the first nine months of 2018, representing an unfavorable decrease of \$5.13 per barrel. Another example is ASCI crude oil, which sold at a \$3.17 per barrel discount to Brent crude oil for the first nine months of 2019 compared to a \$5.21 per barrel discount for the first nine months of 2018, representing an unfavorable decrease of \$2.04 per barrel. We estimate that the decrease in the discounts for the crude oils we processed during the first nine months of 2019 compared to the first nine months of 2018 had an unfavorable impact to our refining segment margin of approximately \$304 million.
- *Lower throughput volumes.* Refining throughput volumes decreased by 48,000 BPD in the first nine months of 2019 compared to the first nine months of 2018. We estimate that the decrease in refining throughput volumes had an unfavorable impact to our refining segment margin of approximately \$132 million.
- *Increase in distillate margins.* We experienced an increase in distillate margins in most of our regions during the first nine months of 2019 compared to the first nine months of 2018. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast ULS diesel was \$14.55 per barrel for the first nine months of 2019 compared to \$13.72 per barrel for the first nine months of 2018, representing a favorable increase of \$0.83 per barrel. Another example is the WTI-based benchmark reference margin for U.S. Mid-Continent ULS diesel, which was \$22.93 per barrel for the first nine months of 2019 compared to \$21.54 per barrel for the first nine months of 2018, representing a favorable increase of \$1.39 per barrel. We estimate that the increase in distillate margins per barrel in the first nine months of 2019 compared to the first nine months of 2018 had a favorable impact to our refining segment margin of approximately \$337 million.
- *Lower costs of biofuel credits.* As more fully described in Note 14 of Condensed Notes to Consolidated Financial Statements, we must purchase biofuel credits in order to meet our biofuel blending obligation under various government and regulatory compliance programs. The cost of these credits (primarily RINs in the U.S.) decreased by \$204 million from \$431 million for the first nine months of 2018 to \$227 million for the first nine months of 2019.

Refining segment operating expenses (excluding depreciation and amortization expense) increased \$140 million primarily due to an increase in maintenance costs of \$80 million and higher electricity costs of \$9 million, along with the effect of favorable property tax settlements of \$20 million and a sales and use

tax refund of \$7 million received in the first nine months of 2018 that did not recur in the first nine months of 2019.

Refining segment depreciation and amortization expense associated with our cost of sales increased \$116 million primarily due to an increase in refinery turnaround and catalyst amortization expense of \$63 million and an increase in depreciation expense of \$45 million associated with capital projects that were completed and finance leases that commenced in the latter part of 2018 and the first half of 2019.

Ethanol Segment Results

Ethanol segment revenues increased \$29 million in the first nine months of 2019 compared to the first nine months of 2018 primarily due to an increase in ethanol prices, partially offset by the effect of a decrease in ethanol sales volumes. This improvement in ethanol segment revenue was outweighed by higher cost of sales of \$170 million, resulting in a decrease in ethanol segment operating income of \$142 million in the first nine months of 2019 compared to the first nine months of 2018.

Excluding the adjustment to ethanol segment operating income reflected in the table on page 62, ethanol segment adjusted operating income decreased \$141 million in the first nine months of 2019 compared to the first nine months of 2018. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

Ethanol segment margin, as defined in note (e) to the accompanying tables, decreased \$88 million in the first nine months of 2019 compared to the first nine months of 2018, primarily due to the following:

- *Higher corn prices.* Corn prices were higher in the first nine months of 2019 compared to the first nine months of 2018. For example, the CBOT corn price was \$3.85 per bushel for the first nine months of 2019 compared to \$3.68 per bushel for the first nine months of 2018, representing an unfavorable increase of \$0.17 per bushel. We estimate that the increase in the price of corn had an unfavorable impact to our ethanol segment margin of approximately \$116 million.
- *Higher ethanol prices.* Despite a decrease in the NYH ethanol price from \$1.52 per gallon for first nine months of 2018 to \$1.50 per gallon for first nine months of 2019, we sold ethanol at higher prices in the first nine months of 2019 compared to the first nine months of 2018 due to favorable location differentials. We estimate that the increase in the price of ethanol we sold had a favorable impact to our ethanol segment margin of \$26 million.

Ethanol segment operating expenses (excluding depreciation and amortization expense) increased \$42 million primarily due to costs to operate the three ethanol plants acquired from Green Plains in November 2018 of \$72 million, partially offset by lower energy costs of \$16 million and lower chemical and catalyst expenses of \$10 million incurred by our other ethanol plants.

Ethanol segment depreciation and amortization expense associated with our cost of sales increased \$11 million primarily due to depreciation expense associated with the three ethanol plants acquired from Green Plains in November 2018.

Renewable Diesel Segment Results

Renewable diesel segment revenues increased \$453 million in the first nine months of 2019 compared to the first nine months of 2018 primarily due to an increase in renewable diesel sales volumes. This improvement in renewable diesel segment revenues was outweighed by higher cost of sales of \$482 million resulting in a decrease in renewable diesel segment operating income of \$29 million in the first nine months of 2019

compared to the first nine months of 2018. The increase in cost of sales was primarily due to the effect from the 2017 blender's tax credit of \$160 million recognized in the first nine months of 2018 (as described in note (a) on page 66), which did not recur in the first nine months of 2019, and incremental costs attributable to the expanded production capacity of the DGD plant.

Excluding the 2017 blender's tax credit recognized in the first nine months of 2018 reflected in the table on page 62, renewable diesel segment adjusted operating income increased \$131 million in the first nine months of 2019 compared to the first nine months of 2018. The components of this increase, along with the reasons for the changes in these components, are outlined below.

Renewable diesel segment margin, as defined in note (e) to the accompanying tables, increased \$158 million in the first nine months of 2019 compared to the first nine months of 2018 primarily due to the effect from higher sales volumes of 398,000 gallons per day in the first nine months of 2019 compared to the first nine months of 2018. The increase in sales volumes is primarily due to the additional production capacity resulting from the expansion of the DGD plant completed in the third quarter of 2018. We estimate that the increase in sales volumes had a favorable impact to our renewable diesel segment margin of approximately \$160 million.

Renewable diesel segment operating expenses (excluding depreciation and amortization expense) increased \$8 million, which is primarily attributable to increased costs resulting from the expansion of the DGD plant in the third quarter of 2018.

Renewable diesel segment depreciation and amortization expense associated with our cost of sales increased \$19 million primarily due to higher turnaround and catalyst amortization expense of \$12 million and depreciation expense associated with the expansion of the DGD plant in the third quarter of 2018 of \$6 million.

Corporate

Corporate consists primarily of general and administrative expenses and depreciation and amortization expense associated with our corporate offices. Corporate costs decreased by \$67 million in the first nine months of 2019 compared to the first nine months of 2018. Excluding the environmental reserve adjustments of \$108 million for the first nine months of 2018 reflected in the table on page 62, adjusted corporate costs increased by \$41 million primarily due to increases in legal and environmental reserves of \$24 million and \$5 million, respectively, as well as expenses associated with the Merger Transaction with VLP of \$7 million.

LIQUIDITY AND CAPITAL RESOURCES

Overview

We believe that we have sufficient funds from operations and from borrowings under our credit facilities to fund our ongoing operating requirements and other commitments. We expect that, to the extent necessary, we can raise additional funds from time to time through equity or debt financings in the public and private capital markets or the arrangement of additional credit facilities. However, there can be no assurances regarding the availability of any future financings or additional credit facilities or whether such financings or additional credit facilities can be made available on terms that are acceptable to us.

Our liquidity consisted of the following as of September 30, 2019 (in millions):

Available borrowing capacity from committed facilities:		
Valero Revolver	\$	3,966
Canadian Revolver		110
Accounts receivable sales facility		1,200
Letter of credit facility		100
Total available borrowing capacity		5,376
Cash and cash equivalents ^(a)		2,040
Total liquidity	\$	7,416

(a) Excludes \$97 million of cash and cash equivalents related to our VIEs that is available for use only by our VIEs.

Information about our outstanding borrowings, letters of credit issued, and availability under our credit facilities is reflected in Note 5 of Condensed Notes to Consolidated Financial Statements.

Cash Flows Summary

Components of our cash flows are set forth below (in millions):

	Nine Months Ended September 30,	
	2019	2018
Cash flows provided by (used in):		
Operating activities	\$ 3,823	\$ 2,693
Investing activities	(2,190)	(2,768)
Financing activities	(2,474)	(2,181)
Effect of foreign exchange rate changes on cash	(4)	(43)
Net decrease in cash and cash equivalents	\$ (845)	\$ (2,299)

Cash Flows for the Nine Months Ended September 30, 2019

Our operations generated \$3.8 billion of cash in the first nine months of 2019, driven primarily by net income of \$1.5 billion, noncash charges to income for depreciation and amortization expense of \$1.7 billion, and a positive change in working capital of \$728 million. See “RESULTS OF OPERATIONS” for further discussion of our operations. The change in our working capital is detailed in Note 12 of Condensed Notes to Consolidated Financial Statements. The source of cash resulting from the \$728 million change in working capital was mainly due to:

- an increase in accounts payable due to an increase in commodity prices in September 2019 compared to December 2018 combined with an increase in crude oil volumes purchased and the timing of payments of invoices;
- a decrease in prepaid expenses and other mainly due to a decrease in income taxes receivable resulting from a refund of \$348 million, including interest, associated with the settlement of the combined audit related to our U.S. federal income tax returns for 2010 and 2011;
- a decrease in inventories due to lower volumes; partially offset by
- an increase in receivables resulting from an increase in commodity prices in September 2019 compared to December 2018 combined with an increase in sales volumes.

The \$3.8 billion of cash generated by our operations, along with (i) \$992 million of proceeds from the debt issuance related to our 4.00 percent Senior Notes, (ii) \$148 million of proceeds from borrowings of VIEs, and (iii) \$845 million from available cash on hand, were used mainly to:

- fund \$2.0 billion in capital investments, as defined below, of which \$107 million related to self-funded capital investments by DGD;
- fund \$139 million of capital investments of other VIEs;
- redeem our 6.125 percent Senior Notes for \$871 million (or 102.48 percent of stated value);
- make payments on finance lease obligations of \$25 million;
- purchase common stock for treasury of \$555 million;
- pay common stock dividends of \$1.1 billion; and
- acquire all of the outstanding publicly held common units of VLP for \$950 million.

In addition, during the nine months ended September 30, 2019, we sold and repaid \$900 million of eligible receivables under our accounts receivable sales facility.

Cash Flows for the Nine Months Ended September 30, 2018

Our operations generated \$2.7 billion of cash in the first nine months of 2018, driven primarily by net income of \$2.3 billion and noncash charges to income for depreciation and amortization expense of \$1.5 billion, partially offset by a negative change in working capital of \$1.2 billion. See “RESULTS OF OPERATIONS” for further discussion of our operations. The change in our working capital is detailed in Note 12 of Condensed Notes to Consolidated Financial Statements. The use of cash resulting from the \$1.2 billion change in working capital was mainly due to:

- an increase in receivables, primarily as a result of increasing commodity prices;
- an increase in inventory due to higher inventory levels combined with higher commodity prices;
- a decrease in income taxes payable resulting from the \$400 million payment of our fourth quarter 2017 estimated taxes in January 2018; and
- a decrease in accrued expenses mainly due to the timing of payments on our environmental compliance program obligations; partially offset by
- an increase in accounts payable due to higher commodity prices and higher purchases.

The \$2.7 billion of cash generated by our operations, along with (i) \$1.3 billion of proceeds from debt issuances and borrowings, (ii) \$71 million of proceeds from borrowings of VIEs, and (iii) \$2.3 billion from available cash on hand, were used mainly to:

- fund \$2.0 billion in capital investments, of which \$163 million related to self-funded capital investments by DGD;
- fund \$89 million of capital investments of other VIEs;
- fund \$554 million for the Peru Acquisition and other minor acquisitions;
- acquire undivided interests in pipeline and terminal assets for \$181 million;
- redeem our 9.375 percent Senior Notes for \$787 million (or 104.9 percent of stated value);
- make payments on debt and finance lease obligations of \$428 million, of which \$410 million related to the repayment of all outstanding borrowings under the VLP Revolver;
- retire \$137 million of debt assumed in connection with the Peru Acquisition;
- purchase common stock for treasury of \$1.1 billion;
- pay common stock dividends of \$1.0 billion; and
- pay distributions to noncontrolling interests of \$63 million.

Capital Investments

As disclosed in our annual report on Form 10-K for the year ended December 31, 2018, we expect to make capital investments of approximately \$2.5 billion in 2019 and in 2020. Approximately 60 percent of those investments are for sustaining the business and 40 percent are for growth strategies. We consider capital investments to include the following:

- Capital expenditures, including those made by DGD but excluding other VIEs;
- Deferred turnaround and catalyst cost expenditures, including those made by DGD; and
- Investments in unconsolidated joint ventures.

We include DGD's capital expenditures and deferred turnaround and catalyst cost expenditures in capital investments because we, as operator of DGD, manage its capital projects and expenditures. We do not include the capital expenditures of our other consolidated VIEs in capital investments because we do not operate those VIEs. In addition, we do not include expenditures for acquisitions and acquisitions of undivided interests in capital investments.

Other Matters Impacting Liquidity and Capital Resources

Stock Purchase Program

On January 23, 2018, our board of directors authorized our purchase of up to an additional \$2.5 billion of our outstanding common stock (the 2018 Program) with no expiration date. As of September 30, 2019, we had \$1.7 billion remaining available for purchase under the 2018 Program. We have no obligation to make purchases under this program.

Pension Plan Funding

As described in Note 9 of Condensed Notes to Consolidated Financial Statements, we plan to contribute approximately \$125 million to our pension plans and \$21 million to our other postretirement benefit plans during 2019, most of which has been contributed as of September 30, 2019.

Environmental Matters

Our operations are subject to extensive environmental regulations by governmental authorities relating to the discharge of materials into the environment, waste management, pollution prevention measures, GHG emissions, and characteristics and composition of gasolines and distillates. Because environmental laws and

regulations are becoming more complex and stringent and new environmental laws and regulations are continuously being enacted or proposed, the level of future expenditures required for environmental matters could increase in the future. In addition, any major upgrades in any of our operating facilities could require material additional expenditures to comply with environmental laws and regulations.

Tax Matters

The Internal Revenue Service has ongoing audits related to our U.S. federal income tax returns from 2012 through 2015. During the first quarter of 2019, we settled the combined audit related to our U.S. federal income tax returns for 2010 and 2011 and, in the second quarter of 2019, we received a refund of \$348 million, including interest, associated with this audit. We did not have a significant change to our uncertain tax positions upon the settlement of the 2010 and 2011 combined audit. We believe that the ultimate settlement of our 2012 through 2015 audits will not be material to our financial position, results of operations, or liquidity.

Cash Held by Our International Subsidiaries

As of September 30, 2019, \$1.8 billion of our cash and cash equivalents was held by our international subsidiaries. Cash held by our international subsidiaries can be repatriated to us without any U.S. federal income tax consequences as a result of the deemed repatriation provisions of the Tax Cuts and Jobs Act of 2017, but certain other taxes apply, including, but not limited to, withholding and U.S. state income taxes. Therefore, there may be a cost to repatriate cash held by certain of our international subsidiaries to us. We have accrued taxes on a portion of the cash held by one of our international subsidiaries that we have deemed to not be permanently reinvested in our operations in that country. We believe that any additional taxes are not material to our financial position, results of operations, or liquidity.

Concentration of Customers

Our operations have a concentration of customers in the refining industry and customers who are refined petroleum product wholesalers and retailers. These concentrations of customers may impact our overall exposure to credit risk, either positively or negatively, in that these customers may be similarly affected by changes in economic or other conditions. However, we believe that our portfolio of accounts receivable is sufficiently diversified to the extent necessary to minimize potential credit risk. Historically, we have not had any significant problems collecting our accounts receivable.

CONTRACTUAL OBLIGATIONS

As of September 30, 2019, our contractual obligations included debt, finance lease obligations, operating lease obligations, purchase obligations, and other long-term liabilities. There were no material changes outside the ordinary course of business with respect to our contractual obligations during the nine months ended September 30, 2019. However, in the ordinary course of business, we had various debt-related activities during the nine months ended September 30, 2019 as described in Note 5 of Condensed Notes to Consolidated Financial Statements.

Our debt and financing agreements do not have rating agency triggers that would automatically require us to post additional collateral. However, in the event of certain downgrades of our senior unsecured debt by the ratings agencies, the cost of borrowings under some of our bank credit facilities and other arrangements would increase. As of September 30, 2019, all of our ratings on our senior unsecured debt, including debt guaranteed by us, are at or above investment grade level as follows:

Rating Agency	Rating
Moody's Investors Service	Baa2 (stable outlook)
Standard & Poor's Ratings Services	BBB (stable outlook)
Fitch Ratings	BBB (stable outlook)

We cannot provide assurance that these ratings will remain in effect for any given period of time or that one or more of these ratings will not be lowered or withdrawn entirely by a rating agency. We note that these credit ratings are not recommendations to buy, sell, or hold our securities. Each rating should be evaluated independently of any other rating. Any future reduction below investment grade or withdrawal of one or more of our credit ratings could have a material adverse impact on our ability to obtain short- and long-term financing and the cost of such financings.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in conformity with U.S. GAAP requires us to make estimates and assumptions that affect the amounts reported in our financial statements and accompanying notes. Actual results could differ from those estimates. As of September 30, 2019, there were no significant changes to our critical accounting policies that involved critical accounting estimates since the date our annual report on Form 10-K for the year ended December 31, 2018 was filed.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**COMMODITY PRICE RISK**

We are exposed to market risks related to the volatility in the price of crude oil, refined petroleum products (primarily gasoline and distillate), renewable diesel, grain (primarily corn), soybean oil, and natural gas used in our operations. To reduce the impact of price volatility on our results of operations and cash flows, we use commodity derivative instruments, including futures and options to manage the volatility of:

- inventories and firm commitments to purchase inventories generally for amounts by which our current year inventory levels (determined on a LIFO basis) differ from our previous year-end LIFO inventory levels; and
- forecasted feedstock and refined petroleum product purchases, refined petroleum product sales, renewable diesel sales, or natural gas purchases to lock in the price of those forecasted transactions at existing market prices that we deem favorable.

Our positions in commodity derivative instruments are monitored and managed on a daily basis by our risk control group to ensure compliance with our stated risk management policy that has been approved by our board of directors.

The following sensitivity analysis includes all of our derivative instruments entered into for purposes other than trading with which we have market risk (in millions):

	September 30, 2019	December 31, 2018
Gain (loss) in fair value resulting from:		
10% increase in underlying commodity prices	\$ (20)	\$ 2
10% decrease in underlying commodity prices	16	(6)

See Note 14 of Condensed Notes to Consolidated Financial Statements for notional volumes associated with these derivative contracts as of September 30, 2019.

COMPLIANCE PROGRAM PRICE RISK

We are exposed to market risk related to the volatility in the price of credits needed to comply with various governmental and regulatory environmental compliance programs. To manage this risk, we enter into contracts to purchase these credits when prices are deemed favorable. Some of these contracts are derivative instruments; however, we elect the normal purchase exception and do not record these contracts at their fair values. As of September 30, 2019 and December 31, 2018, the amount of gain or loss in the fair value of derivative instruments that would have resulted from a 10 percent increase or decrease in the underlying price of the contracts was not material. See Note 14 of Condensed Notes to Consolidated Financial Statements for a discussion about these compliance programs.

INTEREST RATE RISK

The following table provides information about our debt instruments (dollars in millions), the fair values of which are sensitive to changes in interest rates. Principal cash flows and related weighted-average interest rates by expected maturity dates are presented.

September 30, 2019								
	Expected Maturity Dates						Total (a)	Fair Value
	Remainder of 2019	2020	2021	2022	2023	There-after		
Fixed rate	\$ —	\$ —	\$ 10	\$ —	\$ —	\$ 8,474	\$ 8,484	\$ 9,942
Average interest rate	—%	—%	5%	—%	—%	5.2%	5.2%	
Floating rate (b)	\$ 258	\$ 106	\$ 5	\$ 6	\$ 19	\$ —	\$ 394	\$ 394
Average interest rate	6.0%	2.9%	4.4%	4.4%	4.4%	—%	5.0%	

December 31, 2018								
	Expected Maturity Dates						Total (a)	Fair Value
	2019	2020	2021	2022	2023	There-after		
Fixed rate	\$ —	\$ 850	\$ 10	\$ —	\$ —	\$ 7,474	\$ 8,334	\$ 8,737
Average interest rate	—%	6.1%	5%	—%	—%	5.4%	5.5%	
Floating rate (b)	\$ 214	\$ 5	\$ 5	\$ 5	\$ 20	\$ —	\$ 249	\$ 249
Average interest rate	4.6%	4.7%	4.7%	4.7%	4.7%	—%	4.6%	

(a) Excludes unamortized discounts and debt issuance costs.

(b) As of September 30, 2019 and December 31, 2018, we had an interest rate swap associated with \$37 million and \$40 million, respectively, of our floating rate debt resulting in an effective interest rate of 3.85 percent as of each of those reporting dates. The fair value of the swap was immaterial for all periods presented.

FOREIGN CURRENCY RISK

As of September 30, 2019, we had foreign currency contracts to purchase \$436 million of U.S. dollars, \$1.8 billion of U.S. dollar equivalent Canadian dollars, and \$150 million of U.S. dollar equivalent pounds sterling. Our market risk was minimal on these contracts, as all of them matured on or before October 31, 2019.

ITEM 4. CONTROLS AND PROCEDURES

(a) *Evaluation of disclosure controls and procedures.*

Our management has evaluated, with the participation of our principal executive officer and principal financial officer, the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report, and has concluded that our disclosure controls and procedures were effective as of September 30, 2019.

(b) *Changes in internal control over financial reporting.*

There has been no change in our internal control over financial reporting that occurred during our last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

The information below describes new proceedings or material developments in proceedings that we previously reported in our annual report on Form 10-K for the year ended December 31, 2018 and our quarterly report on Form 10-Q for the quarterly period ended March 31, 2019.

Environmental Enforcement Matters

While it is not possible to predict the outcome of the following environmental proceedings, if any one or more of them were decided against us, we believe that there would be no material effect on our financial position, results of operations, or liquidity. We are reporting these proceedings to comply with SEC regulations, which require us to disclose certain information about proceedings arising under federal, state, or local provisions regulating the discharge of materials into the environment or protecting the environment if we reasonably believe that such proceedings will result in monetary sanctions of \$100,000 or more.

Bay Area Air Quality Management District (BAAQMD) and Solano County Department of Resource Management Certified Unified Program Agency (Solano County) (Benicia Refinery). In our quarterly report on Form 10-Q for the quarter ended March 31, 2019, we reported that we had received multiple Violation Notices (VNs) issued by the BAAQMD related to an upset of the Flue Gas Scrubber (FGS) at our Benicia Refinery, and a draft Consent Order (Docket AEO-2019-103) from Solano County related to the FGS incident, which proposed penalties of \$242,840. We resolved this matter with Solano County in the third quarter of 2019, and we are continuing to work with the BAAQMD on a final resolution of the outstanding VNs.

Texas Commission on Environmental Quality (TCEQ) (McKee Refinery). In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had received a proposed Agreed Order from the TCEQ in the amount of \$121,314 as an administrative penalty for alleged excess emissions at our McKee Refinery. We resolved this matter with the TCEQ in the third quarter of 2019.

ITEM 1A. RISK FACTORS

There have been no changes from the risk factors disclosed in our annual report on Form 10-K for the year ended December 31, 2018.

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

(a) *Unregistered Sales of Equity Securities.* Not applicable.

(b) *Use of Proceeds.* Not applicable.

(c) *Issuer Purchases of Equity Securities.* The following table discloses purchases of shares of our common stock made by us or on our behalf during the third quarter of 2019.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Not Purchased as Part of Publicly Announced Plans or Programs (a)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (b)
July 2019	208,592	\$ 84.36	4,063	204,529	\$1.9 billion
August 2019	2,236,077	\$ 77.44	110	2,235,967	\$1.8 billion
September 2019	1,437,455	\$ 80.85	6,418	1,431,037	\$1.7 billion
Total	3,882,124	\$ 79.07	10,591	3,871,533	\$1.7 billion

- (a) The shares reported in this column represent purchases settled in the third quarter of 2019 relating to (i) our purchases of shares in open-market transactions to meet our obligations under stock-based compensation plans and (ii) our purchases of shares from our employees and non-employee directors in connection with the exercise of stock options, the vesting of restricted stock, and other stock compensation transactions in accordance with the terms of our stock-based compensation plans.
- (b) On January 23, 2018, we announced that our board of directors authorized our purchase of up to \$2.5 billion of our outstanding common stock, with no expiration date. As of September 30, 2019, we had \$1.7 billion remaining available for purchase under the 2018 Program.

ITEM 6. EXHIBITS

Exhibit No.	Description
<u>*31.01 Rule 13a-14(a) Certification (under Section 302 of the Sarbanes-Oxley Act of 2002) of principal executive officer.</u>	
<u>*31.02 Rule 13a-14(a) Certification (under Section 302 of the Sarbanes-Oxley Act of 2002) of principal financial officer.</u>	
<u>**32.01 Section 1350 Certifications (under Section 906 of the Sarbanes-Oxley Act of 2002).</u>	
***101.INS	Inline 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	Inline XBRL Taxonomy Extension Schema Document.
***101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.
***101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.
***101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.
***101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.
***104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

* Filed herewith.

** Furnished herewith.

*** Submitted electronically herewith.

Certain agreements relating to our long-term debt have not been filed as exhibits as permitted by paragraph (b)(4)(iii)(A) of Item 601 of Regulation S-K since the total amount of securities authorized under any such agreements do not exceed 10 percent of our total consolidated assets. Upon request, we will furnish to the SEC all constituent agreements defining the rights of holders of our long-term debt not 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.

VALERO ENERGY CORPORATION
(Registrant)

By: /s/ Donna M. Titzman
Donna M. Titzman
Executive Vice President and
Chief Financial Officer
(Duly Authorized Officer and Principal
Financial and Accounting Officer)

Date: November 7, 2019

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Joseph W. Gorder, certify that:

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

Date: November 7, 2019

/s/ Joseph W. Gorder

Joseph W. Gorder

Chief Executive Officer and President

**CERTIFICATION PURSUANT TO SECTION 302
OF THE SARBANES-OXLEY ACT OF 2002**

I, Donna M. Titzman, certify that:

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

Date: November 7, 2019

/s/ Donna M. Titzman

Donna M. Titzman

Executive Vice President and Chief Financial Officer

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Valero Energy Corporation (the Company) on Form 10-Q for the quarter ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), 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:

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

/s/ Joseph W. Gorder

Joseph W. Gorder

Chief Executive Officer and President

November 7, 2019

A signed original of the written statement required by Section 906 has been provided to Valero Energy Corporation and will be retained by Valero Energy Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Valero Energy Corporation (the Company) on Form 10-Q for the quarter ended September 30, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), 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:

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

/s/ Donna M. Titzman

Donna M. Titzman

Executive Vice President and Chief Financial Officer

November 7, 2019

A signed original of the written statement required by Section 906 has been provided to Valero Energy Corporation and will be retained by Valero Energy Corporation and furnished to the Securities and Exchange Commission or its staff upon request.