
**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, 2017

OR

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

For the transition period from _____ to _____

Commission File Number 1-13175

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)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 31, 2017 was 437,581,357 .

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, 2017	December 31, 2016
	(unaudited)	
ASSETS		
Current assets:		
Cash and temporary cash investments	\$ 5,176	\$ 4,816
Receivables, net	5,959	5,901
Inventories	6,137	5,709
Prepaid expenses and other	170	374
Total current assets	17,442	16,800
Property, plant, and equipment, at cost	39,527	37,733
Accumulated depreciation	(12,253)	(11,261)
Property, plant, and equipment, net	27,274	26,472
Deferred charges and other assets, net	3,272	2,901
Total assets	\$ 47,988	\$ 46,173
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of debt and capital lease obligations	\$ 121	\$ 115
Accounts payable	6,677	6,357
Accrued expenses	817	694
Taxes other than income taxes payable	1,223	1,084
Income taxes payable	292	78
Total current liabilities	9,130	8,328
Debt and capital lease obligations, less current portion	8,364	7,886
Deferred income taxes	7,362	7,361
Other long-term liabilities	1,908	1,744
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	7,060	7,088
Treasury stock, at cost; 235,534,764 and 222,000,024 common shares	(12,939)	(12,027)
Retained earnings	27,135	26,366
Accumulated other comprehensive loss	(893)	(1,410)
Total Valero Energy Corporation stockholders' equity	20,370	20,024
Noncontrolling interests	854	830
Total equity	21,224	20,854
Total liabilities and equity	\$ 47,988	\$ 46,173

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,	
	2017	2016	2017	2016
Operating revenues (a)	\$ 23,562	\$ 19,649	\$ 67,588	\$ 54,947
Cost of sales:				
Cost of materials and other	20,329	17,033	59,366	47,660
Operating expenses (excluding depreciation and amortization expense reflected below)	1,125	1,062	3,339	3,093
Depreciation and amortization expense	484	458	1,457	1,391
Lower of cost or market inventory valuation adjustment	—	—	—	(747)
Total cost of sales	21,938	18,553	64,162	51,397
Other operating expenses	44	—	44	—
General and administrative expenses (excluding depreciation and amortization expense reflected below)	229	192	597	507
Depreciation and amortization expense	13	12	39	35
Asset impairment loss	—	—	—	56
Operating income	1,338	892	2,746	2,952
Other income, net	17	12	50	35
Interest and debt expense, net of capitalized interest	(114)	(115)	(354)	(334)
Income before income tax expense	1,241	789	2,442	2,653
Income tax expense	378	144	686	652
Net income	863	645	1,756	2,001
Less: Net income attributable to noncontrolling interests	22	32	62	79
Net income attributable to Valero Energy Corporation stockholders	\$ 841	\$ 613	\$ 1,694	\$ 1,922
Earnings per common share	\$ 1.91	\$ 1.33	\$ 3.80	\$ 4.12
Weighted-average common shares outstanding (in millions)	439	458	444	465
Earnings per common share – assuming dilution	\$ 1.91	\$ 1.33	\$ 3.80	\$ 4.12
Weighted-average common shares outstanding – assuming dilution (in millions)	441	460	446	467
Dividends per common share	\$ 0.70	\$ 0.60	\$ 2.10	\$ 1.80
Supplemental information:				
(a) Includes excise taxes on sales by certain of our international operations	\$ 1,447	\$ 1,398	\$ 4,103	\$ 4,263

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,	
	2017	2016	2017	2016
Net income	\$ 863	\$ 645	\$ 1,756	\$ 2,001
Other comprehensive income (loss):				
Foreign currency translation adjustment	228	(117)	510	(197)
Net gain on pension and other postretirement benefits	4	—	11	6
Other comprehensive income (loss) before income tax expense (benefit)	232	(117)	521	(191)
Income tax expense (benefit) related to items of other comprehensive income (loss)	1	1	3	(5)
Other comprehensive income (loss)	231	(118)	518	(186)
Comprehensive income	1,094	527	2,274	1,815
Less: Comprehensive income attributable to noncontrolling interests	23	32	63	80
Comprehensive income attributable to Valero Energy Corporation stockholders	\$ 1,071	\$ 495	\$ 2,211	\$ 1,735

See Condensed Notes to Consolidated Financial Statements.

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

	Nine Months Ended September 30,	
	2017	2016
Cash flows from operating activities:		
Net income	\$ 1,756	\$ 2,001
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization expense	1,496	1,426
Lower of cost or market inventory valuation adjustment	—	(747)
Asset impairment loss	—	56
Deferred income tax expense	80	193
Changes in current assets and current liabilities	544	953
Changes in deferred charges and credits and other operating activities, net	(54)	(60)
Net cash provided by operating activities	3,822	3,822
Cash flows from investing activities:		
Capital expenditures	(913)	(912)
Deferred turnaround and catalyst costs	(381)	(474)
Investments in joint ventures	(373)	—
Acquisition of undivided interest in crude system assets	(72)	—
Other investing activities, net	(1)	2
Net cash used in investing activities	(1,740)	(1,384)
Cash flows from financing activities:		
Proceeds from debt issuances or borrowings	—	1,653
Repayments of debt and capital lease obligations	(15)	(28)
Purchase of common stock for treasury	(951)	(1,167)
Common stock dividends	(936)	(840)
Proceeds from issuance of Valero Energy Partners LP common units	36	3
Distributions to noncontrolling interests (public unitholders) of Valero Energy Partners LP	(29)	(22)
Distributions to other noncontrolling interests	(27)	(32)
Other financing activities, net	(21)	(146)
Net cash used in financing activities	(1,943)	(579)
Effect of foreign exchange rate changes on cash	221	(24)
Net increase in cash and temporary cash investments	360	1,835
Cash and temporary cash investments at beginning of period	4,816	4,114
Cash and temporary cash investments at end of period	\$ 5,176	\$ 5,949

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

As used in this report, the terms “Valero,” “we,” “us,” or “our” 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, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017.

The balance sheet as of December 31, 2016 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, 2016 .

Reclassifications

Effective January 1, 2017, we revised our reportable segments to reflect a new reportable segment — VLP. The results of the VLP segment include the results of Valero Energy Partners LP (VLP), our majority-owned master limited partnership. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation. See Note 10 for additional information.

Certain amounts reported for the three and nine months ended September 30, 2016 have been reclassified to conform to the 2017 presentation. The changes were primarily due to the separate presentation of depreciation and amortization expense related to operating expenses and general and administrative expenses.

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.

Accounting Pronouncements Adopted During the Period

In July 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2015-11, “Inventory (Topic 330),” to simplify the measurement of inventory measured using the first-in, first-out or average cost methods. The provisions of this ASU require the inventory to be measured at the lower of cost and net realizable value rather than the lower of cost or market. Net realizable value is defined as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. The provisions of this ASU are to be applied prospectively and are effective for annual reporting periods beginning after December 15, 2016, and interim reporting periods within those annual periods, with early adoption permitted. Our adoption of this ASU effective January 1,

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

2017 did not affect our financial position or results of operations since the majority of our inventory is stated at last-in, first-out (LIFO).

In October 2016, the FASB issued ASU No. 2016-16, "Income Taxes (Topic 740)," to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The provisions of this ASU require an entity to recognize the income tax consequences of intra-entity transfers of assets other than inventory immediately when the transfer occurs. These provisions are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods, with early adoption permitted. The provisions should be applied on a modified retrospective basis with a cumulative-effect adjustment to the opening balance of retained earnings as of the beginning of the period of adoption to recognize the income tax consequences of intra-entity transfers of assets that occurred before the adoption date. Our early adoption of this ASU using the modified retrospective method effective January 1, 2017 did not have a material effect on our financial position or results of operations. Adoption of this guidance more accurately reflects the economics of an intra-entity asset transfer when it occurs by eliminating the previous exception that prohibited the recognition of the income tax consequences of an intra-entity asset transfer until the asset had been sold to an outside party.

In October 2016, the FASB issued ASU No. 2016-17, "Consolidation (Topic 810)," to provide guidance on how a reporting entity that is a single decision maker of a variable interest entity (VIE) should treat indirect interests in the entity held through related parties that are under common control with the reporting entity when determining whether it is the primary beneficiary. The provisions of this ASU are effective for annual reporting periods beginning after December 15, 2016, and interim reporting periods within those annual periods, with early adoption permitted. The provisions should be applied on a retrospective basis to all relevant prior periods beginning with the fiscal year in which the VIE guidance was adopted with a cumulative-effect adjustment directly to retained earnings as of the beginning of the period of adoption. Our adoption of this ASU effective January 1, 2017 did not affect our financial position or results of operations.

In January 2017, the FASB issued ASU No. 2017-01, "Business Combinations (Topic 805)," to assist entities with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The provisions of this ASU provide a more robust framework to use in determining when a set of assets and activities is a business by clarifying the requirements related to inputs, processes, and outputs. These provisions are to be applied prospectively and are effective for annual reporting periods beginning after December 15, 2017, with early adoption permitted. Our early adoption of this ASU effective January 1, 2017 did not affect our financial position or results of operations. However, more of our future acquisitions may be accounted for as asset acquisitions.

Accounting Pronouncements Not Yet Adopted

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," to clarify the principles for recognizing revenue. This new standard is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within those annual periods. We have completed our evaluation of the provisions of this standard and concluded that our adoption will not change the amount or timing of revenues recognized by us, nor will it affect our financial position. The majority of our revenues are generated from the sale of refined petroleum products and ethanol. These revenues are largely based on the current spot (market) prices of the products sold, which represent consideration specifically allocable to the products being sold on a given day, and we recognize those revenues

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

upon delivery and transfer of title to the products to our customers. The time at which delivery and transfer of title occurs is the point when our control of the products is transferred to our customers and when our performance obligation to our customers is fulfilled. We will adopt this new standard effective January 1, 2018, and we will use the modified retrospective method of adoption as permitted by the standard. Under that method, the cumulative effect of initially applying the standard is recognized as an adjustment to the opening balance of retained earnings, and revenues reported in the periods prior to the date of adoption are not changed. We do not, however, expect to make such an adjustment to retained earnings. We are currently developing our revenue disclosures and enhancing our accounting systems to enable the preparation of such disclosures as well as the implementation of our internal controls.

In January 2016, the FASB issued ASU No. 2016-01, “Financial Instruments—Overall (Subtopic 825-10),” to enhance the reporting model for financial instruments regarding certain aspects of recognition, measurement, presentation, and disclosure. The provisions of this ASU are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods. This ASU is to be applied using a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The adoption of this ASU effective January 1, 2018 will not affect our financial position or results of operations, but will result in revised disclosures.

In February 2016, the FASB issued ASU No. 2016-02, “Leases (Topic 842),” to increase the transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements. This new standard is effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within those annual periods, with early adoption permitted. We will adopt this new standard on January 1, 2019 and we expect to use the modified retrospective method of adoption as permitted by the standard. We are developing enhanced contracting and lease evaluation processes and information systems to support such processes, as well as new and enhanced accounting systems to account for our leases and support the required disclosures. We continue to evaluate the effect that adopting this standard will have on our financial statements and related disclosures.

In March 2017, the FASB issued ASU No. 2017-07, “Compensation—Retirement Benefits (Topic 715),” which requires employers to report the service cost component of net periodic pension cost and net periodic postretirement benefit cost in the same line item as other compensation costs arising from services rendered by the pertinent employees during the period. It also requires the other components of net periodic pension cost and net periodic postretirement benefit cost (non-service cost components) to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations. This ASU is to be applied retrospectively for income statement items and prospectively for any capitalized benefit costs. The provisions of this ASU are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods, with early adoption permitted. The adoption of this ASU effective January 1, 2018 will not affect our financial position or results of operations, but will result in the reclassification of the non-service cost components from “operating expenses (excluding depreciation and amortization)” and “general and administrative expenses (excluding depreciation and amortization)” to “other income, net.”

In May 2017, the FASB issued ASU No. 2017-09, “Compensation—Stock Compensation (Topic 718),” to reduce diversity in practice, as well as reduce cost and complexity regarding a change to the terms or conditions

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

of a share-based payment award. The provisions of this ASU are effective for annual reporting periods beginning after December 15, 2017, and interim reporting periods within those annual periods, with early adoption permitted. The adoption of this ASU effective January 1, 2018 will not have an immediate effect on our financial position or results of operations as it will be applied prospectively to an award modified on or after adoption.

In August 2017, the FASB issued ASU No. 2017-12, “Derivatives and Hedging (Topic 815),” to improve and simplify accounting guidance for hedge accounting. The provisions of this ASU are effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within those annual periods, with early adoption permitted. We use economic hedges to manage commodity price risk; however, we have not designated these hedges as fair value or cash flow hedges. As a result, the adoption of this ASU effective January 1, 2019 is not expected to affect our financial position or results of operations.

Cost Classifications

“Cost of materials and other” primarily includes the cost of materials that are a component of our products sold. These costs include (i) the direct cost of materials (such as crude oil and other refinery feedstocks, refined petroleum products and blendstocks, and ethanol feedstocks and products) that are a component of our products sold; (ii) costs related to the delivery (such as shipping and handling costs) of products sold; (iii) costs related to our environmental credit obligations to comply with various governmental and regulatory programs (such as the cost of renewable identification numbers (RINs) as required by the U.S. Environmental Protection Agency’s (EPA) Renewable Fuel Standard and emission credits under various cap-and-trade systems, as defined in Note 12); (iv) gains and losses on our commodity derivative instruments; and (v) certain excise taxes.

“Operating expenses (excluding depreciation and amortization expense)” include costs to operate our refineries, ethanol plants, and VLP’s logistics assets, except for depreciation and amortization expense. These costs primarily include employee-related expenses, energy and utility costs, catalysts and chemical costs, and repairs and maintenance expenses. “Depreciation and amortization expense” associated with our operations is separately presented in our statement of income as a component of cost of sales and is disclosed by reportable segment in Note 10 .

“Other operating expenses” include costs, if any, incurred by our reportable segments that are not associated with our cost of sales.

2. ARUBA DISPOSITION

Prior to the Aruba Disposition discussed below, we recognized an asset impairment loss of \$56 million in June 2016 representing all of the remaining carrying value of our long-lived assets in Aruba. These assets were primarily related to our crude oil and refined petroleum products terminal and transshipment facility in Aruba (collectively, the Aruba Terminal), which were included in our refining segment. We recognized the impairment loss at that time because we concluded that it was more likely than not that we would ultimately transfer ownership of these assets to the Government of Aruba (GOA) as a result of agreements entered into in June 2016 between the GOA, CITGO Aruba Refining N.V. (CAR), and CITGO Petroleum Corporation (together with CAR and certain other affiliates, collectively, CITGO) providing for, among other things, the

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

GOA's lease of those assets to CITGO. (See Note 12 for disclosure related to the method to determine fair value.)

In September 2016 and in connection with the Aruba Disposition discussed below, our U.S. subsidiaries were unable to collect outstanding debt obligations owed to them by our Aruba subsidiaries, which resulted in the recognition by us of an income tax benefit in the U.S. of \$42 million during the three and nine months ended September 30, 2016. We had no income tax effect in Aruba from the cancellation of debt or other effects of the Aruba Disposition because of net operating loss carryforwards associated with our operations in Aruba against which we had previously recorded a full valuation allowance.

Effective October 1, 2016, we (i) transferred ownership of all of our assets in Aruba, other than certain hydrocarbon inventories and working capital, to Refineria di Aruba N.V., an entity wholly-owned by the GOA, (ii) settled our obligations under various agreements with the GOA, including agreements that required us to dismantle our leasehold improvements under certain conditions, and (iii) sold the working capital of our Aruba operations, including hydrocarbon inventories, to the GOA and CITGO. We refer to this transaction as the "Aruba Disposition." The agreements associated with the Aruba Disposition were finalized in September 2016, including approval of such agreements by the Aruba Parliament. We no longer own any assets or have any operations in Aruba.

3. INVENTORIES

Inventories consisted of the following (in millions):

	September 30, 2017	December 31, 2016
Refinery feedstocks	\$ 2,357	\$ 2,068
Refined petroleum products and blendstocks	3,304	3,153
Ethanol feedstocks and products	223	238
Materials and supplies	253	250
Inventories	<u>\$ 6,137</u>	<u>\$ 5,709</u>

Inventories are valued at the lower of cost or market. As of December 31, 2015, we had a valuation reserve of \$766 million in order to state our inventories at market. We recorded a change in our lower of cost or market inventory valuation reserve that resulted in a net benefit to our results of operations of \$747 million for the nine months ended September 30, 2016.

As of September 30, 2017 and December 31, 2016, the replacement cost (market value) of LIFO inventories exceeded their LIFO carrying amounts by \$1.9 billion for both periods. As of September 30, 2017 and December 31, 2016, our non-LIFO inventories accounted for \$770 million and \$641 million, respectively, of our total inventories.

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

4. DEBT AND CAPITAL LEASE OBLIGATIONS

Debt

There was no significant activity related to our debt during the nine months ended September 30, 2017 .

During the nine months ended September 30, 2016 , the following activity occurred related to our debt:

- VLP borrowed \$139 million and \$210 million under its \$750 million senior unsecured revolving credit facility (the VLP Revolver) in connection with VLP's acquisitions from us of the McKee Terminal Services Business in April 2016 and the Meraux and Three Rivers Terminal Services Business in September 2016 , respectively;
- we issued \$1.25 billion of 3.4 percent senior notes due September 15, 2026 . Proceeds from this debt issuance totaled \$1.246 billion and were used in October 2016 to redeem \$750 million aggregate principal amount of our 6.125 percent Senior Notes due 2017 and \$200 million aggregate principal amount of our 7.2 percent Senior Notes due 2017. We also incurred \$10 million of debt issuance costs; and
- one of our consolidated joint ventures entered into a C\$72 million senior secured credit facility.

We had outstanding borrowings, letters of credit issued, and availability under our credit facilities as follows (in millions):

	Facility Amount	Maturity Date	September 30, 2017			
			Outstanding Borrowings	Letters of Credit Issued	Availability	
Committed facilities:						
Valero Revolver	\$ 3,000	November 2020	\$ —	\$ 367	\$ 2,633	
VLP Revolver	\$ 750	November 2020	\$ 30	\$ —	\$ 720	
Canadian Revolver	C\$ 25	November 2017	C\$ —	C\$ 10	C\$ 15	
Accounts receivable sales facility	\$ 1,300	July 2018	\$ 100	n/a	\$ 1,200	
Letter of credit facility	\$ 100	November 2017	n/a	\$ —	\$ 100	
Uncommitted facilities:						
Letter of credit facilities	n/a	n/a	n/a	\$ 212	n/a	

Letters of credit issued as of September 30, 2017 expire at various times in 2017 through 2020 .

In June 2017 , one of our committed letter of credit facilities with a borrowing capacity of \$125 million expired and was not renewed.

As of September 30, 2017 and December 31, 2016 , the borrowings on the VLP Revolver bear interest at a variable rate, which was 2.75 percent and 2.3125 percent, respectively. As of September 30, 2017 and

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

December 31, 2016 , the variable interest rate on the accounts receivable sales facility was 1.9124 percent and 1.3422 percent, respectively.

In October 2017, one of our Canadian subsidiaries amended its committed revolving credit facility (the Canadian Revolver) to increase the borrowing capacity from C\$25 million to C\$75 million under which it may borrow and obtain letters of credit and to extend the maturity date from November 2017 to November 2018 .

In connection with VLP's acquisitions of Parkway Pipeline LLC and Valero Partners Port Arthur, LLC, subsidiaries of ours that own certain pipeline and terminaling assets, VLP borrowed \$118 million and \$262 million , respectively, under the VLP Revolver on November 1, 2017. These borrowings bear interest at variable rates, which were 2.75 percent and 2.875 percent, respectively, as of November 1, 2017.

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,	
	2017	2016	2017	2016
Interest and debt expense	\$ 134	\$ 129	\$ 402	\$ 387
Less capitalized interest	20	14	48	53
Interest and debt expense, net of capitalized interest	<u>\$ 114</u>	<u>\$ 115</u>	<u>\$ 354</u>	<u>\$ 334</u>

Capital Leases

In January 2017, we recognized capital lease assets and related obligations totaling approximately \$490 million for the lease of storage tanks located at three of our refineries. These lease agreements have initial terms of 10 years each with successive 10 -year automatic renewals.

5. COMMITMENTS AND CONTINGENCIES

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. The MVP Terminal will contain (i) approximately 5 million barrels of storage capacity, (ii) a dock with two ship berths, and (iii) a three-bay truck rack facility. In connection with our terminaling agreement with MVP, described below, we will have dedicated use of (i) approximately 4 million barrels of storage, (ii) one ship berth, and (iii) the three-bay truck rack facility. Construction began in 2017 with a total estimated cost of \$840 million for phases one and two of the project, of which we expect 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. We have contributed \$77 million to MVP through September 2017; no further contributions are required to be made during the remainder of 2017.

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

Concurrent with the formation of MVP, we entered into a terminalling agreement with MVP to utilize the MVP Terminal upon completion of phase two of construction, which is expected to occur in early 2020. The terminalling agreement has an initial term of 12 years with two five-year automatic renewals, and year-to-year renewals thereafter.

Due to our membership interest in MVP and because the terminalling agreement was determined to be a capital lease, we are the accounting owner of the MVP Terminal during the construction period. Accordingly, as of September 30, 2017, we recorded an asset of \$110 million in property, plant, and equipment for 100 percent of the construction costs incurred by MVP and a long-term liability of \$55 million payable to Magellan. The amounts recorded for the portion of the construction costs associated with the payable to Magellan are noncash investing and financing items, respectively.

Central Texas Pipeline and Terminal Projects

We have a 40 percent undivided interest in a project with a subsidiary of Magellan to jointly build a 135-mile, 16-inch refined petroleum products pipeline with a capacity of up to 150,000 barrels per day from Houston to Hearne, Texas. The pipeline is expected to be completed in mid-2019. Our estimated cost for our 40 percent undivided interest in this pipeline is \$170 million.

In addition, we will separately build, own, and operate a terminal in Hearne, a terminal in Williamson County, Texas, and a 70-mile, 12-inch refined petroleum products pipeline connecting the two terminals. The new pipeline and terminals are expected to supply up to 60,000 barrels per day into the central Texas area. Our estimated cost for these projects is \$210 million with expected completion in mid-2019.

Environmental Matters

We are involved, together with several other companies, in an environmental cleanup in the Village of Hartford, Illinois (the Village) and during 2015, one of these companies assumed the ongoing remediation in the Village pursuant to a federal court order. We had previously conducted an initial response in the Village, along with other companies, pursuant to an administrative order issued by the EPA. The parties involved in the initial response may have further claims among themselves for costs already incurred. We also continue to be engaged in site assessment and interim measures at the adjacent shutdown refinery site, which we acquired as part of an acquisition in 2005, and we are in litigation with other potentially responsible parties and the Illinois EPA relating to the remediation of the site. In each of these matters, we have various defenses, limitations, and potential rights for contribution from the other responsible parties. We have recorded a liability for our expected contribution obligations. However, because of the unpredictable nature of these cleanups, the methodology for allocation of liabilities, and the State of Illinois' failure to directly sue third parties responsible for historic contamination at the site, it is reasonably possible that we could incur a loss in a range of \$0 to \$200 million in excess of the amount of our accrual to ultimately resolve these matters. Factors underlying this estimated range are expected to change from time to time, and actual results may vary significantly from this estimate.

Litigation Matters

We are party to claims and legal proceedings arising in the ordinary course of business. We have not recorded a loss contingency liability with respect to some of these matters because we have determined that it is remote that a loss has been incurred. For other matters, we have recorded a loss contingency liability where we have determined that it is probable that a loss has been incurred and that the loss is reasonably estimable. These

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

loss contingency liabilities are not material to our financial position. We re-evaluate and update our loss contingency liabilities as matters progress over time, and we believe that any changes to the recorded liabilities will not be material to our financial position, results of operations, or liquidity.

6. EQUITY

Reconciliation of Balances

The following is a reconciliation of the beginning and ending balances of equity attributable to our stockholders, equity attributable to noncontrolling interests, and total equity (in millions):

	Nine Months Ended September 30,					
	2017			2016		
	Valero Stockholders' Equity	Non- controlling Interests (a)	Total Equity	Valero Stockholders' Equity	Non- controlling Interests (a)	Total Equity
Balance as of beginning of period	\$ 20,024	\$ 830	\$ 20,854	\$ 20,527	\$ 827	\$ 21,354
Net income	1,694	62	1,756	1,922	79	2,001
Dividends	(936)	—	(936)	(840)	—	(840)
Stock-based compensation expense	37	—	37	33	—	33
Stock purchases in connection with stock-based compensation plans	(27)	—	(27)	(43)	—	(43)
Stock purchases under purchase program	(925)	—	(925)	(1,120)	—	(1,120)
Issuance of Valero Energy Partners LP common units	—	33	33	—	6	6
Distributions to noncontrolling interests	—	(56)	(56)	—	(54)	(54)
Other	(14)	(16)	(30)	47	(68)	(21)
Other comprehensive income (loss)	517	1	518	(187)	1	(186)
Balance as of end of period	<u>\$ 20,370</u>	<u>\$ 854</u>	<u>\$ 21,224</u>	<u>\$ 20,339</u>	<u>\$ 791</u>	<u>\$ 21,130</u>

(a) The noncontrolling interests relate to third-party ownership interests in VIEs for which we are the primary beneficiary and therefore consolidate. See Note 7 for information about our consolidated VIEs.

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

Share Activity

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

	Nine Months Ended September 30,			
	2017		2016	
	Common Stock	Treasury Stock	Common Stock	Treasury Stock
Balance as of beginning of period	673	(222)	673	(200)
Transactions in connection with stock-based compensation plans:				
Stock issuances	—	—	—	1
Stock purchases	—	—	—	(1)
Stock purchases under purchase program	—	(14)	—	(20)
Balance as of end of period	673	(236)	673	(220)

Common Stock Dividends

On November 1, 2017, our board of directors declared a quarterly cash dividend of \$0.70 per common share payable on December 12, 2017 to holders of record at the close of business on November 21, 2017.

Accumulated Other Comprehensive Loss

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

	Nine Months Ended September 30,					
	2017			2016		
	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Total	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Total
Balance as of beginning of period	\$ (1,021)	\$ (389)	\$ (1,410)	\$ (605)	\$ (328)	\$ (933)
Other comprehensive income (loss) before reclassifications	509	—	509	(198)	8	(190)
Amounts reclassified from accumulated other comprehensive loss	—	8	8	—	3	3
Net other comprehensive income (loss)	509	8	517	(198)	11	(187)
Balance as of end of period	\$ (512)	\$ (381)	\$ (893)	\$ (803)	\$ (317)	\$ (1,120)

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

7. VARIABLE INTEREST ENTITIES

Consolidated VIEs

In the normal course of business, we have financial interests in certain entities that have been determined to be VIEs. We consolidate a VIE when we have a variable interest in an entity for which we are the primary beneficiary such that we have (a) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (b) the obligation to absorb losses of or the right to receive benefits from the VIE that could potentially be significant to the VIE. In order to make this determination, we evaluated our contractual arrangements with the VIEs, including arrangements for the use of assets, purchases of products and services, debt, equity, or management of operating activities.

Our significant VIE's include:

- VLP, a publicly traded master limited partnership formed to own, operate, develop, and acquire crude oil and refined petroleum products pipelines, terminals, and other transportation and logistics assets; and
- Diamond Green Diesel Holdings LLC (DGD), a joint venture formed to construct and operate a biodiesel plant that processes animal fats, used cooking oils, and other vegetable oils into renewable green diesel.

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 the 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, 2017			
	VLP	DGD	Other	Total
Assets				
Cash and temporary cash investments	\$ 116	\$ 148	\$ 14	\$ 278
Other current assets	1	54	—	55
Property, plant, and equipment, net	955	391	129	1,475
Liabilities				
Current liabilities	\$ 26	\$ 25	\$ 7	\$ 58
Debt and capital lease obligations, less current portion	525	—	45	570

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

	December 31, 2016			
	VLP	DGD	Other	Total
Assets				
Cash and temporary cash investments	\$ 71	\$ 167	\$ 15	\$ 253
Other current assets	3	87	—	90
Property, plant, and equipment, net	865	355	133	1,353
Liabilities				
Current liabilities	\$ 15	\$ 17	\$ 7	\$ 39
Debt and capital lease obligations, less current portion	525	—	46	571

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 primarily accounted for as equity investments. However, one of our non-consolidated VIEs is accounted for under owner accounting and is further described below and in Note 5 .

As described in Note 5 , we have a 50 percent membership interest in MVP, which was formed to construct, own, and operate the MVP Terminal. MVP was determined to be a VIE because the power to direct the activities that most significantly impact its economic performance is not required to be held by its two members, but is held by Magellan, as operator under a construction, operating, and management agreement with MVP. For this reason and because Magellan holds a 50 percent interest in MVP that provides it with significant economic rights and obligations, we determined that we are not the primary beneficiary. As of September 30, 2017 , our maximum exposure to loss was \$77 million , which represents our equity investment in MVP.

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

8. EMPLOYEE BENEFIT PLANS

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

	Pension Plans		Other Postretirement Benefit Plans	
	2017	2016	2017	2016
Three months ended September 30:				
Service cost	\$ 31	\$ 28	\$ 1	\$ 2
Interest cost	21	21	3	3
Expected return on plan assets	(37)	(35)	—	—
Amortization of:				
Net actuarial (gain) loss	13	13	—	(1)
Prior service credit	(5)	(5)	(4)	(4)
Special charges (credits)	3	(7)	—	—
Net periodic benefit cost	<u>\$ 26</u>	<u>\$ 15</u>	<u>\$ —</u>	<u>\$ —</u>
Nine months ended September 30:				
Service cost	\$ 92	\$ 84	\$ 4	\$ 5
Interest cost	64	63	8	9
Expected return on plan assets	(112)	(104)	—	—
Amortization of:				
Net actuarial (gain) loss	40	37	(2)	(1)
Prior service credit	(15)	(15)	(12)	(12)
Special charges (credits)	3	(7)	—	—
Net periodic benefit cost (credit)	<u>\$ 72</u>	<u>\$ 58</u>	<u>\$ (2)</u>	<u>\$ 1</u>

We contributed \$104 million and \$132 million, respectively, to our pension plans and \$17 million and \$12 million, respectively, to our other postretirement benefit plans during the nine months ended September 30, 2017 and 2016. Of the \$104 million contributed to our pension plans during the nine months ended September 30, 2017, \$80 million was discretionary and was contributed during the third quarter of 2017.

As a result of the discretionary pension contributions discussed above, our expected contributions to our pension plans have increased to \$108 million for 2017. Our anticipated contributions to our other postretirement benefit plans during 2017 have not changed from the amount previously disclosed in our financial statements for the year ended December 31, 2016.

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

9. 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,			
	2017		2016	
	Participating Securities	Common Stock	Participating Securities	Common Stock
Earnings per common share:				
Net income attributable to Valero stockholders		\$ 841		\$ 613
Less dividends paid:				
Common stock		308		275
Participating securities		1		1
Undistributed earnings		\$ 532		\$ 337
Weighted-average common shares outstanding	2	439	1	458
Earnings per common share:				
Distributed earnings	\$ 0.70	\$ 0.70	\$ 0.60	\$ 0.60
Undistributed earnings	1.21	1.21	0.73	0.73
Total earnings per common share	\$ 1.91	\$ 1.91	\$ 1.33	\$ 1.33
Earnings per common share – assuming dilution:				
Net income attributable to Valero stockholders		\$ 841		\$ 613
Weighted-average common shares outstanding		439		458
Common equivalent shares		2		2
Weighted-average common shares outstanding – assuming dilution		441		460
Earnings per common share – assuming dilution		\$ 1.91		\$ 1.33

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

	Nine Months Ended September 30,			
	2017		2016	
	Participating Securities	Common Stock	Participating Securities	Common Stock
Earnings per common share:				
Net income attributable to Valero stockholders		\$ 1,694		\$ 1,922
Less dividends paid:				
Common stock		933		837
Participating securities		3		3
Undistributed earnings		\$ 758		\$ 1,082
Weighted-average common shares outstanding	2	444	1	465
Earnings per common share:				
Distributed earnings	\$ 2.10	\$ 2.10	\$ 1.80	\$ 1.80
Undistributed earnings	1.70	1.70	2.32	2.32
Total earnings per common share	\$ 3.80	\$ 3.80	\$ 4.12	\$ 4.12
Earnings per common share – assuming dilution:				
Net income attributable to Valero stockholders		\$ 1,694		\$ 1,922
Weighted-average common shares outstanding		444		465
Common equivalent shares		2		2
Weighted-average common shares outstanding – assuming dilution		446		467
Earnings per common share – assuming dilution		\$ 3.80		\$ 4.12

Participating securities include restricted stock and performance awards granted under our 2011 Omnibus Stock Incentive Plan.

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

10. SEGMENT INFORMATION

Effective January 1, 2017, 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 — VLP. The results of the VLP segment, which include the results of our majority-owned master limited partnership referred to by the same name, were transferred from the refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation.

As a result, we have three reportable segments as follows:

- *Refining segment* includes our refining operations, the associated marketing activities, and certain logistics assets that support our refining operations that are not owned by VLP;
- *Ethanol segment* includes our ethanol operations, the associated marketing activities, and logistics assets that support our ethanol operations; and
- *VLP segment* includes the results of VLP, which provides transportation and terminaling services in support of our refining segment.

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

Our reportable segments are strategic business units that offer different products and services. They are managed separately as each business requires unique technologies and marketing strategies. Performance is evaluated based on segment operating income, 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.

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

The following table reflects activity related to our reportable segments (in millions):

	Refining	Ethanol	VLP	Corporate and Eliminations	Total
Three months ended September 30, 2017:					
Operating revenues:					
Operating revenues from external customers	\$ 22,728	\$ 834	\$ —	\$ —	\$ 23,562
Intersegment revenues	1	48	110	(159)	—
Total operating revenues	22,729	882	110	(159)	23,562
Cost of sales:					
Cost of materials and other	19,818	669	—	(158)	20,329
Operating expenses (excluding depreciation and amortization expense reflected below)	986	114	26	(1)	1,125
Depreciation and amortization expense	455	17	12	—	484
Total cost of sales	21,259	800	38	(159)	21,938
Other operating expenses	41	—	3	—	44
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	229	229
Depreciation and amortization expense	—	—	—	13	13
Operating income (loss) by segment	\$ 1,429	\$ 82	\$ 69	\$ (242)	\$ 1,338
Three months ended September 30, 2016:					
Operating revenues:					
Operating revenues from external customers	\$ 18,718	\$ 931	\$ —	\$ —	\$ 19,649
Intersegment revenues	—	56	92	(148)	—
Total operating revenues	18,718	987	92	(148)	19,649
Cost of sales:					
Cost of materials and other	16,424	757	—	(148)	17,033
Operating expenses (excluding depreciation and amortization expense reflected below)	931	107	24	—	1,062
Depreciation and amortization expense	429	17	12	—	458
Total cost of sales	17,784	881	36	(148)	18,553
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	192	192
Depreciation and amortization expense	—	—	—	12	12
Operating income (loss) by segment	\$ 934	\$ 106	\$ 56	\$ (204)	\$ 892

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

	Refining	Ethanol	VLP	Corporate and Eliminations	Total
Nine months ended September 30, 2017:					
Operating revenues:					
Operating revenues from external customers	\$ 65,030	\$ 2,558	\$ —	\$ —	\$ 67,588
Intersegment revenues	1	136	326	(463)	—
Total operating revenues	65,031	2,694	326	(463)	67,588
Cost of sales:					
Cost of materials and other	57,662	2,166	—	(462)	59,366
Operating expenses (excluding depreciation and amortization expense reflected below)	2,935	330	75	(1)	3,339
Depreciation and amortization expense	1,358	63	36	—	1,457
Total cost of sales	61,955	2,559	111	(463)	64,162
Other operating expenses	41	—	3	—	44
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	597	597
Depreciation and amortization expense	—	—	—	39	39
Operating income (loss) by segment	\$ 3,035	\$ 135	\$ 212	\$ (636)	\$ 2,746
Nine months ended September 30, 2016:					
Operating revenues:					
Operating revenues from external customers	\$ 52,302	\$ 2,645	\$ —	\$ —	\$ 54,947
Intersegment revenues	—	135	258	(393)	—
Total operating revenues	52,302	2,780	258	(393)	54,947
Cost of sales:					
Cost of materials and other	45,790	2,263	—	(393)	47,660
Operating expenses (excluding depreciation and amortization expense reflected below)	2,716	305	72	—	3,093
Depreciation and amortization expense	1,308	48	35	—	1,391
Lower of cost or market inventory valuation adjustment	(697)	(50)	—	—	(747)
Total cost of sales	49,117	2,566	107	(393)	51,397
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	507	507
Depreciation and amortization expense	—	—	—	35	35
Asset impairment loss	56	—	—	—	56
Operating income (loss) by segment	\$ 3,129	\$ 214	\$ 151	\$ (542)	\$ 2,952

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

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

	September 30, 2017	December 31, 2016
Refining	\$ 39,450	\$ 38,095
Ethanol	1,319	1,316
VLP	1,110	972
Corporate and eliminations	6,109	5,790
Total assets	<u>\$ 47,988</u>	<u>\$ 46,173</u>

11. 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,	
	2017	2016
Decrease (increase) in current assets:		
Receivables, net	\$ 74	\$ (278)
Inventories	(285)	557
Prepaid expenses and other	138	137
Increase (decrease) in current liabilities:		
Accounts payable	227	494
Accrued expenses	121	46
Taxes other than income taxes payable	78	8
Income taxes payable	191	(11)
Changes in current assets and current liabilities	<u>\$ 544</u>	<u>\$ 953</u>

Noncash investing and financing activities during the nine months ended September 30, 2017 included the recognition of (i) a capital lease asset and related obligation associated with an agreement for storage tanks near three of our refineries as described in Note 4 and (ii) terminal assets and related obligation recorded under owner accounting as described in Note 5 . There were no significant noncash investing and financing activities during the nine months ended September 30, 2016 .

Cash flows reflected as “other financing activities, net” for the nine months ended September 30, 2016 included the payment of a long-term liability of \$137 million owed to a joint venture partner associated with an owner-method joint venture investment.

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

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

	Nine Months Ended September 30,	
	2017	2016
Interest paid in excess of amount capitalized	\$ 356	\$ 312
Income taxes paid, net	357	305

12. FAIR VALUE MEASUREMENTS

Recurring Fair Value Measurements

The tables below 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, 2017 and December 31, 2016.

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 tables below 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, 2017									
	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	\$ 861	\$ 34	\$ —	\$ 895	\$ (882)	\$ (11)	\$ 2	\$ —		
Foreign currency contracts	6	—	—	6	n/a	n/a	6	n/a		
Investments of certain benefit plans	63	—	8	71	n/a	n/a	71	n/a		
Total	\$ 930	\$ 34	\$ 8	\$ 972	\$ (882)	\$ (11)	\$ 79			
Liabilities:										
Commodity derivative contracts	\$ 974	\$ 16	\$ —	\$ 990	\$ (882)	\$ (108)	\$ —	\$ (171)		
Environmental credit obligations	—	231	—	231	n/a	n/a	231	n/a		
Physical purchase contracts	—	8	—	8	n/a	n/a	8	n/a		
Foreign currency contracts	1	—	—	1	n/a	n/a	1	n/a		
Total	\$ 975	\$ 255	\$ —	\$ 1,230	\$ (882)	\$ (108)	\$ 240			

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

	December 31, 2016									
	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	\$ 874	\$ 38	\$ —	\$ 912	\$ (875)	\$ —	\$ 37	\$ —		
Foreign currency contracts	3	—	—	3	n/a	n/a	3	n/a		
Investments of certain benefit plans	58	—	11	69	n/a	n/a	69	n/a		
Total	\$ 935	\$ 38	\$ 11	\$ 984	\$ (875)	\$ —	\$ 109			
Liabilities:										
Commodity derivative contracts	\$ 872	\$ 23	\$ —	\$ 895	\$ (875)	\$ (20)	\$ —	\$ (88)		
Environmental credit obligations	—	188	—	188	n/a	n/a	188	n/a		
Physical purchase contracts	—	5	—	5	n/a	n/a	5	n/a		
Total	\$ 872	\$ 216	\$ —	\$ 1,088	\$ (875)	\$ (20)	\$ 193			

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 and swaps, and as disclosed in Note 13, some of these contracts are designated as hedging instruments. These contracts are measured at fair value using the market approach. Exchange-traded futures are valued based on quoted prices from the exchange and are categorized in Level 1 of the fair value hierarchy. Swaps are priced using third-party broker quotes, industry pricing services, and exchange-traded curves, with appropriate consideration of counterparty credit risk, but because they have contractual terms that are not identical to exchange-traded futures instruments with a comparable market price, these financial instruments are categorized in Level 2 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 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 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 entered into for our international operations to manage our exposure to exchange rate fluctuations on transactions denominated in currencies other than the local (functional) currencies of those operations. These contracts are valued based on quoted prices from the exchange 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 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), Quebec's *Environmental Quality Act* (the Quebec cap-and-trade system), and Ontario's *Climate Change Mitigation and Low-Carbon Economy Act* (the Ontario cap-and-trade system), (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. These programs are further described in Note 13 under "Environmental Compliance Program Price Risk." 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 between levels for assets and liabilities held as of September 30, 2017 and December 31, 2016 that were measured at fair value on a recurring basis.

There was no significant activity during the three and nine months ended September 30, 2017 and 2016 related to the fair value amounts categorized in Level 3 as of September 30, 2017 and December 31, 2016 .

Nonrecurring Fair Value Measurements

As discussed in Note 2 , we concluded that the Aruba Terminal was impaired as of June 30, 2016, which resulted in an asset impairment loss of \$56 million that was recorded in June 2016. The fair value of the Aruba Terminal was determined using an income approach and was classified in Level 3. We employed a probability-weighted approach to possible future cash flow scenarios, including transferring ownership of the business to the GOA or continuing to operate the business.

There were no assets or liabilities that were measured at fair value on a nonrecurring basis as of September 30, 2017 and December 31, 2016 .

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

Other Financial Instruments

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

	September 30, 2017		December 31, 2016	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial assets:				
Cash and temporary cash investments	\$ 5,176	\$ 5,176	\$ 4,816	\$ 4,816
Financial liabilities:				
Debt (excluding capital leases)	7,930	9,195	7,926	8,882

The methods and significant assumptions used to estimate the fair value of these financial instruments are as follows:

- The fair value of cash and temporary cash investments approximates the carrying value due to the low level of credit risk of these assets combined with their short maturities and market interest rates (Level 1).
- The fair value of debt is determined primarily using the market approach based on quoted prices provided by third-party brokers and vendor pricing services (Level 2).

13. PRICE RISK MANAGEMENT ACTIVITIES

We are exposed to market risks primarily related to the volatility in the price of commodities, and 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 12), as summarized below under *“Fair Values of Derivative Instruments,”* with changes in fair value recognized currently in income. 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), 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, swaps, and options. We use the futures markets for the available liquidity, which provides greater flexibility in transacting our hedging and trading operations. We use swaps primarily to manage our price exposure. 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.

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

To manage commodity price risk, we use economic hedges, which are not designated as fair value or cash flow hedges, and we use fair value and cash flow hedges from time to time. We also enter into certain commodity derivative instruments for trading purposes. Our objectives for entering into hedges or trading derivatives are described below.

- *Economic Hedges* – Economic hedges represent commodity derivative instruments that are used to manage price volatility in certain (i) feedstock and refined petroleum product inventories, (ii) fixed-price purchase contracts, and (iii) forecasted feedstock, refined petroleum product or natural gas purchases and refined petroleum product sales. The objectives of our economic hedges are to hedge price volatility in certain feedstock and refined petroleum product inventories and to lock in the price of forecasted feedstock, refined petroleum product, or natural gas purchases or refined petroleum product sales at existing market prices that we deem favorable. Economic hedges are not designated as fair value or cash flow hedges for accounting purposes, usually due to the difficulty of establishing the required documentation at the date the derivative instrument is entered into for them to qualify as hedging instruments for accounting purposes.

As of September 30, 2017, we had the following outstanding commodity derivative instruments that were used as 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 those identified as corn contracts that are presented in thousands of bushels and soybean oil contracts that are presented in thousands of pounds).

Derivative Instrument	Notional Contract Volumes by Year of Maturity		
	2017	2018	2019
Crude oil and refined petroleum products:			
Swaps – long	13,369	725	—
Swaps – short	12,889	650	—
Futures – long	99,816	7,014	—
Futures – short	107,940	6,982	—
Corn:			
Futures – long	19,060	20	35
Futures – short	24,985	18,070	45
Physical contracts – long	13,065	9,223	11
Soybean oil:			
Futures – long	63,059	—	—
Futures – short	157,018	—	—

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

- *Trading Derivatives* – Our objective for entering into commodity derivative instruments for trading purposes is to take advantage of existing market conditions for crude oil and refined petroleum products.

As of September 30, 2017, we had the following outstanding commodity derivative instruments that were entered into for trading purposes. The information presents the notional volume of outstanding contracts by type of instrument and year of maturity (volumes in thousands of barrels, except those identified as natural gas contracts that are presented in billions of British thermal units and corn contracts that are presented in thousands of bushels).

Derivative Instrument	Notional Contract Volumes by Year of Maturity	
	2017	2018
Crude oil and refined petroleum products:		
Swaps – long	1,922	134
Swaps – short	1,922	134
Futures – long	56,273	25,948
Futures – short	55,234	26,933
Options – long	39,380	142,450
Options – short	38,980	142,450
Natural gas:		
Futures – long	600	—
Futures – short	300	—
Corn:		
Futures – long	400	—

We had no commodity derivative contracts outstanding as of September 30, 2017 and 2016 or during the nine months ended September 30, 2017 and 2016 that were designated as fair value or cash flow hedges.

Foreign Currency Risk

We are exposed to exchange rate fluctuations on transactions entered into by our international operations that are denominated in currencies other than the local (functional) currencies of those operations. To manage our exposure to these exchange rate fluctuations, we use foreign currency exchange and purchase contracts. These contracts are not designated as hedging instruments for accounting purposes and therefore are classified as economic hedges. As of September 30, 2017, we had forward contracts to purchase \$514 million of U.S. dollars. These commitments matured on or before October 31, 2017.

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

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

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 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 \$230 million and \$198 million for the three months ended September 30, 2017 and 2016, respectively, and \$631 million and \$532 million for the nine months ended September 30, 2017 and 2016, respectively. These amounts are reflected in cost of materials and other.

We are subject to additional requirements under greenhouse gas (GHG) emission programs, including the cap-and-trade systems, as discussed in Note 12. Under these cap-and-trade systems, we purchase various GHG emission credits available on the open market. Therefore, we are exposed to the volatility in the market price of these credits. The cost to implement certain provisions of the cap-and-trade systems are significant; however, we recovered the majority of these costs from our customers for the three and nine months ended September 30, 2017 and 2016 and expect to continue to recover the majority of these costs in the future. For the three and nine months ended September 30, 2017 and 2016, the net cost of meeting our obligations under these compliance programs was immaterial.

Fair Values of Derivative Instruments

The following tables provide information about the fair values of our derivative instruments as of September 30, 2017 and December 31, 2016 (in millions) and the line items in the balance sheets in which the fair values are reflected. See Note 12 for additional information related to the fair values of our derivative instruments.

As indicated in Note 12, 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 tables below, 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, 2017	
		Asset Derivatives	Liability Derivatives
Derivatives not designated as hedging instruments			
Commodity contracts:			
Futures	Receivables, net	\$ 861	\$ 974
Swaps	Receivables, net	27	13
Options	Receivables, net	7	3
Physical purchase contracts	Inventories	—	8
Foreign currency contracts	Receivables, net	6	—
Foreign currency contracts	Accrued expenses	—	1
Total		\$ 901	\$ 999

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

	Balance Sheet Location	December 31, 2016	
		Asset Derivatives	Liability Derivatives
Derivatives not designated as hedging instruments			
Commodity contracts:			
Futures	Receivables, net	\$ 874	\$ 872
Swaps	Receivables, net	32	21
Options	Receivables, net	6	2
Physical purchase contracts	Inventories	—	5
Foreign currency contracts	Receivables, net	3	—
Total		\$ 915	\$ 900

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.

Effect of Derivative Instruments on Income

The following tables provide information about the gain or loss recognized in income on our derivative instruments and the income statement line items in which such gains and losses are reflected (in millions).

Derivatives Designated as Economic Hedges	Location of Gain (Loss) Recognized in Income on Derivatives	Three Months Ended September 30,		Nine Months Ended September 30,	
		2017	2016	2017	2016
Commodity contracts	Cost of materials and other	\$ (86)	\$ 42	\$ (158)	\$ (210)
Foreign currency contracts	Cost of materials and other	(16)	4	(42)	5

Trading Derivatives	Location of Gain Recognized in Income on Derivatives	Three Months Ended September 30,		Nine Months Ended September 30,	
		2017	2016	2017	2016
Commodity contracts	Cost of materials and other	\$ 31	\$ 13	\$ 29	\$ 51

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,” “estimate,” “project,” “projection,” “predict,” “budget,” “forecast,” “goal,” “guidance,” “target,” “could,” “should,” “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;
- 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 costs for refinery turnarounds and catalyst, 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 midstream 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, petrochemicals, and ethanol;
- 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 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, and refined petroleum products and ethanol;
- 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 tax and environmental regulations, such as those implemented under the California cap-and-trade system (also known as AB 32), the Quebec cap-and-trade system, the Ontario cap-and-trade system, and the U.S. EPA'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, and the euro 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, 2016 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 refining and ethanol segment margin and adjusted operating income. 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

In the third quarter of 2017, we reported net income attributable to Valero stockholders of \$841 million compared to \$613 million in the third quarter of 2016, which represents an increase of \$228 million. This increase is primarily due to higher operating income between the periods (net of the resulting increase of \$234 million in income tax expense). Operating income was \$1.3 billion in the third quarter of 2017 compared to \$892 million in the third quarter of 2016, which represents an increase of \$446 million.

Operating income in the third quarter of 2017 was negatively impacted by \$44 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses. By excluding these expenses, adjusted operating income was \$1.4 billion for the third quarter of 2017, which is an increase of \$490 million compared to operating income of \$892 million in the third quarter of 2016.

The \$490 million increase in adjusted operating income is due primarily to the following:

- *Refining segment.* Refining segment adjusted operating income increased by \$536 million due to higher margins on refined petroleum products and higher throughput volumes, partially offset by lower discounts on sour crude oils and other feedstocks and higher operating expenses (excluding depreciation and amortization expense). This is more fully described on pages 43 through 45.
- *Ethanol segment.* Ethanol segment operating income decreased by \$24 million due to higher corn prices, partially offset by higher ethanol prices. This is more fully described on page 45.
- *VLP segment.* VLP segment adjusted operating income increased by \$16 million primarily due to incremental revenues generated from transportation and terminaling services provided to the refining segment associated with a business acquired in September 2016 and the acquisition of an undivided interest in crude system assets in January 2017. This is more fully described on pages 45 and 46.
- *General and administrative expenses (excluding depreciation and amortization expense).* General and administrative expenses (excluding depreciation and amortization expense) increased by \$37 million primarily due to expenses associated with the termination of the acquisition of certain assets from Plains All American Pipeline, L.P. (Plains) of \$16 million and higher employee related costs of \$11 million.

First Nine Months Results

In the first nine months of 2017, we reported net income attributable to Valero stockholders of \$1.7 billion compared to \$1.9 billion in the first nine months of 2016, which represents a decrease of \$228 million. This decrease is primarily due to lower operating income between the periods. Operating income was \$2.7 billion in the first nine months of 2017 compared to \$3.0 billion in the first nine months of 2016, which represents a decrease of \$206 million.

Operating income in the first nine months of 2017 was negatively impacted by \$44 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses. By excluding these other operating expenses, adjusted operating income was \$2.8 billion for the first nine months of 2017.

Operating income in the first nine months of 2016 was positively impacted by a noncash benefit from a lower of cost or market inventory valuation adjustment partially offset by a noncash charge from an impairment loss related to our Aruba Terminal. By excluding these items, adjusted operating income was \$2.3 billion .

Comparing these adjusted amounts, adjusted operating income in the first nine months of 2017 increased by \$529 million compared to the first nine months of 2016 .

The \$529 million increase in adjusted operating income is due primarily to the following:

- *Refining segment.* Refining segment adjusted operating income increased by \$588 million due to higher margins on refined petroleum products and higher throughput volumes, partially offset by lower discounts on sour crude oils and other feedstocks and higher operating expenses (excluding depreciation and amortization expense). This is more fully described on pages 56 and 57 .
- *Ethanol segment.* Ethanol segment adjusted operating income decreased by \$29 million due to lower corn related co-product prices and higher operating expenses (excluding depreciation and amortization expense), partially offset by higher ethanol prices. This is more fully described on pages 57 and 58 .
- *VLP segment.* VLP segment adjusted operating income increased by \$64 million due to incremental revenues generated from transportation and terminaling services provided to the refining segment associated with businesses acquired in 2016 and the acquisition of an undivided interest in crude system assets in January 2017 . This is more fully described on pages 58 and 59 .
- *General and administrative expenses (excluding depreciation and amortization expense).* General and administrative expenses (excluding depreciation and amortization expense) increased by \$90 million primarily due to an increase in legal and environmental reserves of \$25 million, higher employee related costs of \$20 million, expenses associated with the termination of the acquisition of certain assets from Plains of \$16 million, and increases in charitable contributions and advertising expenses of \$6 million and \$5 million, respectively.

Additional details and analysis of the changes in operating income and adjusted operating income for our business segments and other components of net income, including a reconciliation of non-GAAP financial measures used in this Overview to their most comparable measures reported under U.S. GAAP, are provided below under “RESULTS OF OPERATIONS” beginning on page 36 .

Effective January 1, 2017 , we revised our reportable segments to reflect a new reportable segment — VLP. The results of operations of the VLP segment were previously included in the refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation. See Note 10 of Condensed Notes to Consolidated Financial Statements for additional segment information.

Outlook

Below are several factors that have impacted or may impact our results of operations during the fourth quarter of 2017 :

- Gasoline margins are expected to decline as domestic demand follows typical seasonal patterns.
- Distillate margins are expected to continue to be supported by strong export demand.
- Medium and heavy sour crude oil discounts are expected to remain weaker than their five-year averages as supplies of sour crude oils in the market remain suppressed.
- Sweet crude oil discounts are expected to widen as increased supplies from the Permian Basin are delivered into U.S. Gulf Coast markets.
- Ethanol segment margins are expected to decline as domestic gasoline demand weakens.

RESULTS OF OPERATIONS

The following tables highlight our results of operations, our operating performance, and market 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 and refining and ethanol 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, 2017, 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 — VLP. The results of the VLP segment, which include the results of our majority-owned master limited partnership referred to by the same name, were transferred from the refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation. The narrative following these tables provides an analysis of our results of operations.

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

	Three Months Ended September 30, 2017				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Operating revenues:					
Operating revenues from external customers	\$ 22,728	\$ 834	\$ —	\$ —	\$ 23,562
Intersegment revenues	1	48	110	(159)	—
Total operating revenues	22,729	882	110	(159)	23,562
Cost of sales:					
Cost of materials and other	19,818	669	—	(158)	20,329
Operating expenses (excluding depreciation and amortization expense reflected below)	986	114	26	(1)	1,125
Depreciation and amortization expense	455	17	12	—	484
Total cost of sales	21,259	800	38	(159)	21,938
Other operating expenses (b)	41	—	3	—	44
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	229	229
Depreciation and amortization expense	—	—	—	13	13
Operating income (loss) by segment	\$ 1,429	\$ 82	\$ 69	\$ (242)	1,338
Other income, net					17
Interest and debt expense, net of capitalized interest					(114)
Income before income tax expense					1,241
Income tax expense					378
Net income					863
Less: Net income attributable to noncontrolling interests					22
Net income attributable to Valero Energy Corporation stockholders					\$ 841

See note references on pages 53 through 55 .

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

	Three Months Ended September 30, 2016				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Operating revenues:					
Operating revenues from external customers	\$ 18,718	\$ 931	\$ —	\$ —	\$ 19,649
Intersegment revenues	—	56	92	(148)	—
Total operating revenues	18,718	987	92	(148)	19,649
Cost of sales:					
Cost of materials and other	16,424	757	—	(148)	17,033
Operating expenses (excluding depreciation and amortization expense reflected below) (d)	931	107	24	—	1,062
Depreciation and amortization expense (d)	429	17	12	—	458
Total cost of sales	17,784	881	36	(148)	18,553
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	192	192
Depreciation and amortization expense	—	—	—	12	12
Operating income (loss) by segment	\$ 934	\$ 106	\$ 56	\$ (204)	892
Other income, net					12
Interest and debt expense, net of capitalized interest					(115)
Income before income tax expense					789
Income tax expense					144
Net income					645
Less: Net income attributable to noncontrolling interests					32
Net income attributable to Valero Energy Corporation stockholders					\$ 613

See note references on pages 53 through 55 .

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

	Three Months Ended September 30, 2017				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Reconciliation of actual (U.S. GAAP) to adjusted (non-GAAP) amounts (e)					
Actual and adjusted operating income (loss)					
Operating income (loss) by segment	\$ 1,429	\$ 82	\$ 69	\$ (242)	\$ 1,338
Exclude adjustment:					
Other operating expenses	(41)	—	(3)	—	(44)
Adjusted operating income (loss)	<u>\$ 1,470</u>	<u>\$ 82</u>	<u>\$ 72</u>	<u>\$ (242)</u>	<u>\$ 1,382</u>

See note references on pages 53 through 55 .

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

	Three Months Ended September 30,		
	2017	2016	Change
Throughput volumes (thousand barrels per day)			
Feedstocks:			
Heavy sour crude oil	446	394	52
Medium/light sour crude oil	420	520	(100)
Sweet crude oil	1,348	1,218	130
Residuals	215	282	(67)
Other feedstocks	147	166	(19)
Total feedstocks	2,576	2,580	(4)
Blendstocks and other	317	280	37
Total throughput volumes	2,893	2,860	33
Yields (thousand barrels per day)			
Gasolines and blendstocks	1,401	1,401	—
Distillates	1,108	1,078	30
Other products (f)	420	426	(6)
Total yields	2,929	2,905	24
Operating statistics			
Refining segment margin (e)	\$ 2,911	\$ 2,294	\$ 617
Adjusted refining segment operating income (e)	\$ 1,470	\$ 934	\$ 536
Throughput volumes (thousand barrels per day)	2,893	2,860	33
Refining segment throughput margin per barrel (g)	\$ 10.94	\$ 8.72	\$ 2.22
Less:			
Operating expenses (excluding depreciation and amortization reflected below)	3.71	3.54	0.17
Depreciation and amortization expense	1.71	1.63	0.08
Adjusted refining segment operating income per barrel (h)	\$ 5.52	\$ 3.55	\$ 1.97

See note references on pages 53 through 55 .

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

	Three Months Ended September 30,		
	2017	2016	Change
Operating statistics			
Ethanol segment margin (e)	\$ 213	\$ 230	\$ (17)
Adjusted ethanol segment operating income (e)	\$ 82	\$ 106	\$ (24)
Production volumes (thousand gallons per day)	4,032	3,815	217
Ethanol segment margin per gallon of production (g)	\$ 0.57	\$ 0.66	\$ (0.09)
Less:			
Operating expenses (excluding depreciation and amortization reflected below)	0.30	0.31	(0.01)
Depreciation and amortization expense	0.05	0.05	—
Adjusted ethanol segment operating income per gallon of production (h)	\$ 0.22	\$ 0.30	\$ (0.08)

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

	Three Months Ended September 30,		
	2017	2016	Change
Volumes (thousand barrels per day)			
Pipeline transportation throughput	859	778	81
Terminals throughput	2,694	2,394	300
Operating statistics			
Pipeline transportation revenue	\$ 23	\$ 19	\$ 4
Pipeline transportation revenue per barrel (g)	\$ 0.29	\$ 0.26	\$ 0.03
Terminals revenue	\$ 86	\$ 73	\$ 13
Terminals revenue per barrel (g)	\$ 0.34	\$ 0.33	\$ 0.01
Storage and other revenue	\$ 1	\$ —	\$ 1
Total VLP segment operating revenues	\$ 110	\$ 92	\$ 18

See note references on pages 53 through 55 .

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

	Three Months Ended September 30,		
	2017	2016	Change
Feedstocks			
Brent crude oil	\$ 52.21	\$ 46.91	\$ 5.30
Brent less West Texas Intermediate (WTI) crude oil	4.05	2.03	2.02
Brent less Alaska North Slope (ANS) crude oil	0.02	2.13	(2.11)
Brent less Louisiana Light Sweet (LLS) crude oil	0.57	0.38	0.19
Brent less Argus Sour Crude Index (ASCI) crude oil	3.85	5.16	(1.31)
Brent less Maya crude oil	5.66	7.88	(2.22)
LLS crude oil	51.64	46.53	5.11
LLS less ASCI crude oil	3.28	4.78	(1.50)
LLS less Maya crude oil	5.09	7.50	(2.41)
WTI crude oil	48.16	44.88	3.28
Natural gas (dollars per million British thermal units (MMBtu))	2.91	2.80	0.11
Products			
U.S. Gulf Coast:			
CBOB gasoline less Brent	14.36	9.69	4.67
Ultra-low-sulfur diesel less Brent	15.89	10.63	5.26
Propylene less Brent	(1.74)	(2.76)	1.02
CBOB gasoline less LLS	14.93	10.07	4.86
Ultra-low-sulfur diesel less LLS	16.46	11.01	5.45
Propylene less LLS	(1.17)	(2.38)	1.21
U.S. Mid-Continent:			
CBOB gasoline less WTI	19.28	14.15	5.13
Ultra-low-sulfur diesel less WTI	21.99	15.36	6.63
North Atlantic:			
CBOB gasoline less Brent	17.72	11.12	6.60
Ultra-low-sulfur diesel less Brent	17.06	11.52	5.54
U.S. West Coast:			
CARBOB 87 gasoline less ANS	22.11	17.68	4.43
CARB diesel less ANS	20.46	14.83	5.63
CARBOB 87 gasoline less WTI	26.14	17.58	8.56
CARB diesel less WTI	24.49	14.73	9.76
New York Harbor corn crush (dollars per gallon)	0.31	0.35	(0.04)

See note references on pages 53 through 55 .

Total Company, Corporate, and Other

Operating revenues increased \$3.9 billion in the third quarter of 2017 compared to the third quarter of 2016 primarily due to increases in refined petroleum product prices associated with our refining segment. This improvement in operating revenues was partially offset by higher cost of materials and other of \$3.3 billion, as well as increases in operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, other operating expenses, and general and administrative expenses (excluding depreciation and amortization expense) of \$63 million, \$27 million, \$44 million, and \$37 million, respectively. These changes resulted in an increase in operating income of \$446 million, from \$892 million in the third quarter of 2016 to \$1.3 billion in the third quarter of 2017.

Excluding the \$44 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses, adjusted operating income for the third quarter of 2017 increased \$490 million. Details regarding changes in segment margins, operating expenses (excluding depreciation and amortization expense), and depreciation and amortization expense are discussed by segment in the individual segment analysis below.

General and administrative expenses (excluding depreciation and amortization expense) increased by \$37 million in the third quarter of 2017 compared to the third quarter of 2016 primarily due to expenses associated with the termination of the acquisition of certain assets from Plains of \$16 million and higher employee related costs of \$11 million.

Income tax expense increased \$234 million from the third quarter of 2016 to the third quarter of 2017 primarily as a result of higher income before income tax expense. The effective tax rates of 30 percent in the third quarter of 2017 and 18 percent in the third quarter of 2016 are lower than the U.S. statutory rate of 35 percent primarily because income from our international operations is taxed at statutory rates that are lower than in the U.S. The effective tax rate in the third quarter of 2016 was also impacted by a benefit of \$42 million associated with our Aruba disposition and a benefit of \$35 million resulting from the favorable resolution of an income tax audit. The Aruba disposition matter is more fully described in Note 2 of Condensed Notes to Consolidated Financial Statements.

Refining Segment Results

Refining segment operating revenues increased \$4.0 billion and cost of materials and other increased \$3.4 billion in the third quarter of 2017 compared to the third quarter of 2016 primarily due to increases in refined petroleum product prices and crude oil feedstocks, respectively. The resulting \$617 million increase in refining segment margin was partially offset by increases in operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense associated with our cost of sales, and other operating expenses of \$55 million, \$26 million, and \$41 million, respectively, resulting in an increase in operating income of \$495 million, from \$934 million in the third quarter of 2016 to \$1.4 billion in the third quarter of 2017.

Excluding the \$41 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses, adjusted operating income for the third quarter of 2017 increased \$536 million. The reasons for this increase are described below.

As previously noted, refining segment margin increased \$617 million in the third quarter of 2017 compared to the third quarter of 2016, primarily due to the following:

- *Increase in distillate margins.* We experienced an increase in distillate margins throughout all of our regions in the third quarter of 2017 compared to the third quarter of 2016. For example, the Brent-

based benchmark reference margin for U.S. Gulf Coast ultra-low-sulfur diesel was \$15.89 per barrel in the third quarter of 2017 compared to \$10.63 per barrel in the third quarter of 2016, representing a favorable increase of \$5.26 per barrel. Another example is the Brent-based benchmark reference margin for North Atlantic ultra-low-sulfur diesel that was \$17.06 per barrel in the third quarter of 2017 compared to \$11.52 per barrel in the third quarter of 2016, representing a favorable increase of \$5.54 per barrel. We estimate that the increase in distillate margins in the third quarter of 2017 compared to the third quarter of 2016 had a favorable impact to our refining segment margin of approximately \$385 million.

- *Increase in gasoline margins.* We also experienced an increase in gasoline margins throughout all our regions during the third quarter of 2017 compared to the third quarter of 2016. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast CBOB gasoline was \$14.36 per barrel during the third quarter of 2017 compared to \$9.69 per barrel during the third quarter of 2016, representing a favorable increase of \$4.67 per barrel. Another example is the Brent-based benchmark reference margin for North Atlantic CBOB gasoline, which was \$17.72 per barrel during the third quarter of 2017 compared to \$11.12 per barrel during the third quarter of 2016, representing a \$6.60 per barrel increase. We estimate that the increases in gasoline margins per barrel during the third quarter of 2017 compared to the third quarter of 2016 had a favorable impact to our refining segment margin of approximately \$359 million.
- *Higher throughput volumes.* Refining throughput volumes increased by 33,000 barrels per day in the third quarter of 2017 despite unplanned downtime at certain of our U.S. Gulf Coast refineries related to Hurricane Harvey. We estimate that the increase in refining throughput volumes had a positive impact on our refining segment margin of approximately \$33 million.
- *Lower discounts on other feedstocks.* In addition to crude oil, we utilize other feedstocks, such as 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 when pricing terms are favorable. While we benefitted from processing these types of feedstocks in the third quarter of 2017, that benefit declined compared to the third quarter of 2016. We estimate that the reduction in the discounts for the other feedstocks that we processed in the third quarter of 2017 had an unfavorable impact to our refining segment margin of approximately \$88 million.
- *Lower discounts on sour crude oils.* The market prices of refined products generally track the price of Brent crude oil, which is a benchmark sweet crude oil, and we benefit when we process crude oils that are priced at a discount to Brent crude oil when pricing terms are favorable. While we benefitted from processing sour crude oils in the third quarter of 2017, that benefit declined compared to the third quarter of 2016. For example, ASCI crude oil sold at a discount of \$3.85 per barrel to Brent crude oil in the third quarter of 2017 compared to a discount of \$5.16 per barrel in the third quarter of 2016, representing an unfavorable decrease of \$1.31 per barrel. Another example is Maya crude oil that sold at a discount of \$5.66 per barrel to Brent crude oil in the third quarter of 2017 compared to a discount of \$7.88 per barrel in the third quarter of 2016, representing an unfavorable decrease of \$2.22 per barrel. We estimate that the reduction in the discounts for sour crude oils that we processed in the third quarter of 2017 had an unfavorable impact to our refining segment margin of approximately \$66 million.
- *Higher costs of biofuel credits.* As more fully described in Note 13 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, and the cost

of these credits (primarily RINs in the U.S.) increased by \$32 million from \$198 million in the third quarter of 2016 to \$230 million in the third quarter of 2017 .

- *Increase in charges from VLP.* Charges from the VLP segment for transportation and terminaling services increased \$18 million in the third quarter of 2017 compared to the third quarter of 2016 primarily due to new charges from businesses acquired by VLP during the third quarter of 2016 . Details regarding the increase in charges from VLP are discussed in the VLP segment analysis below.

The increase of \$55 million in refining segment operating expenses (excluding depreciation and amortization expense) was primarily due to an increase in energy costs driven by higher natural gas prices (\$ 2.91 per MMBtu in the third quarter of 2017 compared to \$ 2.80 per MMBtu in the third quarter of 2016).

The increase of \$26 million in depreciation and amortization expense associated with our cost of sales was primarily due to an increase in refinery turnaround and catalyst amortization expense due to costs incurred in the latter part of 2016 in connection with significant turnaround projects at our Port Arthur and Texas City Refineries.

Ethanol Segment Results

Ethanol segment operating revenues decreased \$105 million and cost of materials and other decreased \$88 million in the third quarter of 2017 compared to the third quarter of 2016 primarily due to a decrease in ethanol sales volumes. The resulting \$17 million decrease in ethanol segment margin, along with higher operating expenses (excluding depreciation and amortization expense) of \$7 million , resulted in a decrease in operating income of \$24 million , from \$106 million in the third quarter of 2016 to \$82 million in the third quarter of 2017 . The reasons for this decrease are described below.

As previously noted, ethanol segment margin decreased \$17 million in the third quarter of 2017 compared to the third quarter of 2016 primarily due to the following:

- *Higher corn prices.* Corn prices were higher in the third quarter of 2017 compared to the third quarter of 2016 due to lower U.S. corn production expected from the current corn crop. For example, the Chicago Board of Trade (CBOT) corn price was \$3.61 per bushel in the third quarter of 2017 compared to \$3.32 per bushel in the third quarter of 2016 . We estimate that the increase in the price of corn had an unfavorable impact to our ethanol segment margin of \$30 million.
- *Higher ethanol prices .* Ethanol prices were slightly higher in the third quarter of 2017 compared to the third quarter of 2016 primarily due to an increase in ethanol export demand. For example, the New York Harbor ethanol price was \$1.62 per gallon in the third quarter of 2017 compared to \$1.55 per gallon in the third quarter of 2016 . We estimate this increase had a favorable impact to our ethanol segment margin of \$15 million.

VLP Segment Results

VLP segment operating revenues increased \$18 million in the third quarter of 2017 compared to the third quarter of 2016 primarily due to incremental revenues generated from transportation and terminaling services provided to the refining segment associated with a business acquired during the third quarter of 2016 and assets acquired in January 2017 , as discussed below. This \$18 million increase in revenues was partially offset by higher operating expenses (excluding depreciation and amortization expense) and other operating expenses of \$2 million and \$3 million , respectively, resulting in an increase in operating income of \$13 million . Excluding the \$3 million of damages associated with Hurricane Harvey, which are reflected in

other operating expenses, adjusted operating income increased by \$16 million compared to the third quarter of 2016 .

VLP segment operating revenues increased \$18 million in the third quarter of 2017 compared to the third quarter of 2016 , primarily due to the following:

- *Incremental terminaling throughput from acquired business.* VLP experienced an 11 percent increase in terminaling revenues in the third quarter of 2017 compared to the third quarter of 2016 generated by contributions from the Meraux and Three Rivers Terminal Services Business, which was acquired in September 2016 . The incremental throughput volumes generated by this business had a favorable impact to VLP's operating revenues of \$10 million.
- *Incremental operating revenues from acquired undivided interest in crude system assets.* Incremental throughput volumes related to the acquisition of an undivided interest in crude system assets in January 2017 had a favorable impact to VLP's operating revenues of \$3 million.

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

	Nine Months Ended September 30, 2017				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Operating revenues:					
Operating revenues from external customers	\$ 65,030	\$ 2,558	\$ —	\$ —	\$ 67,588
Intersegment revenues	1	136	326	(463)	—
Total operating revenues	65,031	2,694	326	(463)	67,588
Costs of sales:					
Cost of materials and other	57,662	2,166	—	(462)	59,366
Operating expenses (excluding depreciation and amortization expense reflected below)	2,935	330	75	(1)	3,339
Depreciation and amortization expense	1,358	63	36	—	1,457
Total cost of sales	61,955	2,559	111	(463)	64,162
Other operating expenses (b)	41	—	3	—	44
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	597	597
Depreciation and amortization expense	—	—	—	39	39
Operating income (loss) by segment	<u>\$ 3,035</u>	<u>\$ 135</u>	<u>\$ 212</u>	<u>\$ (636)</u>	<u>2,746</u>
Other income, net					50
Interest and debt expense, net of capitalized interest					(354)
Income before income tax expense					2,442
Income tax expense					686
Net income					1,756
Less: Net income attributable to noncontrolling interests					62
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 1,694</u>

See note references on pages 53 through 55 .

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

	Nine Months Ended September 30, 2016				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Operating revenues:					
Operating revenues from external customers	\$ 52,302	\$ 2,645	\$ —	\$ —	\$ 54,947
Intersegment revenues	—	135	258	(393)	—
Total operating revenues	52,302	2,780	258	(393)	54,947
Costs of sales:					
Cost of materials and other	45,790	2,263	—	(393)	47,660
Operating expenses (excluding depreciation and amortization expense) (d)	2,716	305	72	—	3,093
Depreciation and amortization expense (d)	1,308	48	35	—	1,391
Lower of cost or market inventory valuation adjustment (a)	(697)	(50)	—	—	(747)
Total cost of sales	49,117	2,566	107	(393)	51,397
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	507	507
Depreciation and amortization expense	—	—	—	35	35
Asset impairment loss (c)	56	—	—	—	56
Operating income (loss) by segment	\$ 3,129	\$ 214	\$ 151	\$ (542)	2,952
Other income, net					35
Interest and debt expense, net of capitalized interest					(334)
Income before income tax expense					2,653
Income tax expense					652
Net income					2,001
Less: Net income attributable to noncontrolling interests					79
Net income attributable to Valero Energy Corporation stockholders					\$ 1,922

See note references on pages 53 through 55 .

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

	Nine Months Ended September 30, 2017				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Reconciliation of actual (U.S. GAAP) to adjusted (non-GAAP) amounts (e)					
Actual and adjusted operating income (loss)					
Operating income (loss) by segment	\$ 3,035	\$ 135	\$ 212	\$ (636)	\$ 2,746
Exclude adjustment:					
Other operating expenses (b)	(41)	—	(3)	—	(44)
Adjusted operating income (loss)	<u>\$ 3,076</u>	<u>\$ 135</u>	<u>\$ 215</u>	<u>\$ (636)</u>	<u>\$ 2,790</u>

	Nine Months Ended September 30, 2016				
	Refining	Ethanol	VLP	Corporate and Eliminations	Total Company
Reconciliation of actual (U.S. GAAP) to adjusted (non-GAAP) amounts (e)					
Actual and adjusted operating income (loss)					
Operating income (loss)	\$ 3,129	\$ 214	\$ 151	\$ (542)	\$ 2,952
Exclude adjustments:					
Lower of cost or market inventory valuation adjustment (a)	697	50	—	—	747
Asset impairment loss (c)	(56)	—	—	—	(56)
Adjusted operating income (loss)	<u>\$ 2,488</u>	<u>\$ 164</u>	<u>\$ 151</u>	<u>\$ (542)</u>	<u>\$ 2,261</u>

See note references on pages 53 through 55 .

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

	Nine Months Ended September 30,		
	2017	2016	Change
Throughput volumes (thousand barrels per day)			
Feedstocks:			
Heavy sour crude oil	470	401	69
Medium/light sour crude oil	461	519	(58)
Sweet crude oil	1,301	1,195	106
Residuals	226	281	(55)
Other feedstocks	146	157	(11)
Total feedstocks	2,604	2,553	51
Blendstocks and other	313	302	11
Total throughput volumes	2,917	2,855	62
Yields (thousand barrels per day)			
Gasolines and blendstocks	1,406	1,396	10
Distillates	1,122	1,072	50
Other products (f)	426	425	1
Total yields	2,954	2,893	61
Operating statistics			
Refining segment margin (e)	\$ 7,369	\$ 6,512	\$ 857
Adjusted operating income (e)	\$ 3,076	\$ 2,488	\$ 588
Throughput volumes (thousand barrels per day)	2,917	2,855	62
Refining segment throughput margin per barrel (g)	\$ 9.26	\$ 8.32	\$ 0.94
Less:			
Operating expenses (excluding depreciation and amortization expense reflected below)	3.69	3.47	0.22
Depreciation and amortization expense	1.71	1.67	0.04
Adjusted operating income per barrel (h)	\$ 3.86	\$ 3.18	\$ 0.68

See note references on pages 53 through 55 .

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

	Nine Months Ended September 30,		
	2017	2016	Change
Operating statistics			
Ethanol segment margin (e)	\$ 528	\$ 517	\$ 11
Adjusted operating income (e)	\$ 135	\$ 164	\$ (29)
Production volumes (thousand gallons per day)	3,949	3,794	155
Ethanol segment margin per gallon of production (g)	\$ 0.49	\$ 0.50	\$ (0.01)
Less:			
Operating expenses (excluding depreciation and amortization reflected below)	0.31	0.29	0.02
Depreciation and amortization expense	0.05	0.05	—
Adjusted operating income per gallon of production (h)	\$ 0.13	\$ 0.16	\$ (0.03)

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

	Nine Months Ended September 30,		
	2017	2016	Change
Volumes (thousand barrels per day)			
Pipeline transportation throughput	941	849	92
Terminaling throughput	2,760	2,131	629
Operating statistics			
Pipeline transportation revenue	\$ 71	\$ 58	\$ 13
Pipeline transportation revenue per barrel (g)	\$ 0.28	\$ 0.25	\$ 0.03
Terminaling revenue	\$ 253	\$ 200	\$ 53
Terminaling revenue per barrel (g)	\$ 0.34	\$ 0.34	\$ —
Storage and other revenue	\$ 2	\$ —	\$ 2
Total operating revenues	\$ 326	\$ 258	\$ 68

See note references on pages 53 through 55 .

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

	Nine Months Ended September 30,		
	2017	2016	Change
Feedstocks			
Brent crude oil	\$ 52.59	\$ 43.00	\$ 9.59
Brent less WTI crude oil	3.18	1.80	1.38
Brent less ANS crude oil	0.35	1.35	(1.00)
Brent less LLS crude oil	0.77	0.02	0.75
Brent less ASCI crude oil	4.28	5.18	(0.90)
Brent less Maya crude oil	7.54	8.73	(1.19)
LLS crude oil	51.82	42.98	8.84
LLS less ASCI crude oil	3.51	5.16	(1.65)
LLS less Maya crude oil	6.77	8.71	(1.94)
WTI crude oil	49.41	41.20	8.21
Natural gas (dollars per MMBtu)	3.00	2.27	0.73
Products			
U.S. Gulf Coast:			
CBOB gasoline less Brent	11.17	9.54	1.63
Ultra-low-sulfur diesel less Brent	12.67	9.34	3.33
Propylene less Brent	(0.16)	(5.65)	5.49
CBOB gasoline less LLS	11.94	9.56	2.38
Ultra-low-sulfur diesel less LLS	13.44	9.36	4.08
Propylene less LLS	0.61	(5.63)	6.24
U.S. Mid-Continent:			
CBOB gasoline less WTI	15.38	12.64	2.74
Ultra-low-sulfur diesel less WTI	16.86	12.70	4.16
North Atlantic:			
CBOB gasoline less Brent	12.99	12.02	0.97
Ultra-low-sulfur diesel less Brent	13.78	10.74	3.04
U.S. West Coast:			
CARBOB 87 gasoline less ANS	20.63	18.86	1.77
CARB diesel less ANS	16.54	13.58	2.96
CARBOB 87 gasoline less WTI	23.46	19.31	4.15
CARB diesel less WTI	19.37	14.03	5.34
New York Harbor corn crush (dollars per gallon)	0.28	0.24	0.04

See note references on pages 53 through 55 .

The following notes relate to references on pages 37 through 42 and 47 through 52.

- (a) During the nine months ended September 30, 2016, we recorded a change in our lower of cost or market inventory valuation reserve that was established on December 31, 2015, resulting in a noncash benefit of \$747 million (\$697 million and \$50 million attributable to our refining and ethanol segments, respectively). This adjustment is further discussed in Note 3 of Condensed Notes to Consolidated Financial Statements.
- (b) Other operating expenses reflect expenses that are not associated with our cost of sales, which for the third quarter of 2017, includes costs incurred at certain of our U.S. Gulf Coast refineries and certain VLP assets due to damage associated with Hurricane Harvey.
- (c) Effective October 1, 2016, we (i) transferred ownership of all of our assets in Aruba, other than certain hydrocarbon inventories and working capital, to Refineria di Aruba N.V., an entity wholly-owned by the GOA, (ii) settled our obligations under various agreements with the GOA, including agreements that required us to dismantle our leasehold improvements under certain conditions, and (iii) sold the working capital of our Aruba operations, including hydrocarbon inventories, to the GOA, CITGO Aruba Refining N.V. (CAR), and CITGO Petroleum Corporation (together with CAR and certain other affiliates, collectively, CITGO). We refer to this transaction as the “Aruba Disposition.”

In June 2016, we recognized an asset impairment loss of \$56 million representing all of the remaining carrying value of the long-lived assets of our crude oil and refined petroleum products terminal and transshipment facility in Aruba (collectively, the Aruba Terminal). We recognized the impairment loss at that time because we concluded that it was more likely than not that we would ultimately transfer ownership of these assets to the GOA as a result of agreements entered into in June 2016 between the GOA and CITGO providing for, among other things, the GOA’s lease of those assets to CITGO.

In September 2016 and in connection with the Aruba Disposition, our U.S. subsidiaries cancelled all outstanding debt obligations owed to them by our Aruba subsidiaries, which resulted in the recognition by us of an income tax benefit in the U.S. of \$42 million during the three and nine months ended September 30, 2016. This matter is further discussed in Note 2 of Condensed Notes to Consolidated Financial Statements.

- (d) Effective January 1, 2017, 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 —VLP. The results of the VLP segment, which include the results of our majority-owned master limited partnership referred to by the same name, were transferred from the refining segment. Comparable prior period information for our refining segment (as well as that segment’s U.S. Gulf Coast and U.S. Mid-Continent regions) and VLP segment has been retrospectively adjusted to reflect our current segment presentation.
- (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 the utility of these measures.

Non-GAAP measures are as follows:

- **Refining and ethanol segment margins** are defined as segment operating income excluding the lower of cost or market inventory valuation adjustment, operating expenses (excluding depreciation and amortization expense), other operating expenses, depreciation and amortization expense associated with our cost of sales, and the asset impairment loss as shown below:

	Three Months Ended September 30,			
	2017		2016	
	Refining	Ethanol	Refining	Ethanol
Reconciliation of operating income to segment margin				
Operating income	\$ 1,429	\$ 82	\$ 934	\$ 106
Add back:				
Operating expenses (excluding depreciation and amortization expense)	986	114	931	107
Depreciation and amortization expense	455	17	429	17
Other operating expenses	41	—	—	—
Segment margin	<u>\$ 2,911</u>	<u>\$ 213</u>	<u>\$ 2,294</u>	<u>\$ 230</u>

	Nine Months Ended September 30,			
	2017		2016	
	Refining	Ethanol	Refining	Ethanol
Reconciliation of operating income by segment to segment margin				
Operating income	\$ 3,035	\$ 135	\$ 3,129	\$ 214
Add back:				
Operating expenses (excluding depreciation and amortization expense)	2,935	330	2,716	305
Depreciation and amortization expense	1,358	63	1,308	48
Lower of cost or market inventory valuation adjustment (a)	—	—	(697)	(50)
Other operating expenses	41	—	—	—
Asset impairment loss	—	—	56	—
Segment margin	<u>\$ 7,369</u>	<u>\$ 528</u>	<u>\$ 6,512</u>	<u>\$ 517</u>

- **Adjusted refining segment operating income** is defined as refining segment operating income excluding other operating expenses, the lower of cost or market inventory valuation adjustment and the asset impairment loss.
- **Adjusted ethanol segment operating income** is defined as ethanol segment operating income excluding the lower of cost or market inventory valuation adjustment.
- **Adjusted VLP segment operating income** is defined as VLP segment operating income excluding other operating expenses.

(f) Other products primarily include petrochemicals, gas oils, No. 6 fuel oil, petroleum coke, sulfur, and asphalt.

- (g) Throughput margin per barrel represents refining segment margin (as defined in (e) above) for our refining segment divided by throughput volumes. Ethanol segment margin per gallon of production represents ethanol segment margin (as defined in (e) above) for our ethanol segment divided by production volumes. Pipeline transportation revenue per barrel and terminaling revenue per barrel represents pipeline transportation revenue and terminaling revenue for our VLP segment divided by pipeline transportation throughput and terminaling throughput volumes, respectively. Throughput and production volumes are calculated by multiplying throughput and production volumes per day (as provided in the accompanying tables) by the number of days in the applicable period.
- (h) Adjusted operating income per barrel represents adjusted operating income (defined in (e) above) for our refining segment divided by throughput volumes. Adjusted operating income per gallon of production represents adjusted operating income (defined in (e) above) for our ethanol segment divided by production volumes. Throughput and production volumes are calculated by multiplying throughput and production volumes per day (as provided in the accompanying tables) by the number of days in the applicable period.

Total Company, Corporate, and Other

Operating revenues increased \$12.6 billion in the first nine months of 2017 compared to the first nine months of 2016 primarily due to increases in refined petroleum product prices associated with our refining segment, and we also benefitted from the positive effect from the \$56 million asset impairment loss related to our Aruba Terminal in 2016. These items were more than offset by higher cost of materials and other of \$11.7 billion and the negative effect from the \$747 million lower of cost or market inventory valuation adjustment in the first nine months of 2016, as well as increases in operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, other operating expenses, and general and administrative expenses (excluding depreciation and amortization expense) of \$246 million, \$70 million, \$44 million, and \$90 million, respectively. These changes resulted in a decrease in operating income of \$206 million, from \$3.0 billion in the first nine months of 2016 to \$2.7 billion in the first nine months of 2017.

Excluding the \$44 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses, from 2017 operating income and the \$747 million benefit from the lower of cost or market inventory valuation adjustment and the asset impairment loss of \$56 million related to our Aruba Terminal from 2016 operating income, adjusted operating income in the first nine months of 2017 increased by \$529 million. Details regarding changes in segment margins, operating expenses (excluding depreciation and amortization expense), and depreciation and amortization expense are discussed by segment in the individual segment analysis below.

General and administrative expenses (excluding depreciation and amortization expense) increased by \$90 million in the first nine months of 2017 compared to the first nine months of 2016 primarily due to an increase in legal and environmental reserves of \$25 million, higher employee related costs of \$20 million, expenses associated with the termination of the acquisition of certain assets from Plains of \$16 million, and increases in charitable contributions and advertising expenses of \$6 million and \$5 million, respectively.

Income tax expense increased \$34 million from the first nine months of 2016 to the first nine months of 2017 despite lower income before income tax expense primarily due to tax benefits recognized in the first nine months of 2016 associated with our Aruba disposition and the favorable resolution of an income tax audit. The effective tax rates of 28 percent in the first nine months of 2017 and 25 percent in the first nine months of 2016 are lower than the U.S. statutory rate of 35 percent primarily because income from our international operations is taxed at statutory rates that are lower than in the U.S. The effective tax rate in the first nine months of 2016 was lower than the rate in the first nine months of 2017 due to the \$42 million tax benefit associated with our Aruba disposition and the \$35 million tax benefit resulting from the favorable resolution of an income tax audit.

Refining Segment Results

Refining segment operating revenues increased \$12.7 billion and cost of materials and other increased \$11.9 billion in the first nine months of 2017 compared to the first nine months of 2016 primarily due to increases in refined petroleum product prices and crude oil feedstock costs, respectively. The resulting \$857 million increase in refining segment margin along with the positive effect from the \$56 million asset impairment loss related to our Aruba Terminal in 2016, was more than offset by the negative effect from the \$697 million lower of cost or market inventory valuation adjustment in the first nine months of 2016, as well as increases in operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense associated with our cost of sales, and other operating expenses of \$219 million, \$50 million, and \$41 million, respectively. These changes resulted in a decrease in operating income of \$94 million, from \$3.1 billion in the first nine months of 2016 to \$3.0 billion in the first nine months of 2017.

Excluding the \$41 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses, from 2017 operating income and the \$697 million benefit from the lower of cost or market inventory valuation adjustment and the \$56 million asset impairment loss related to our Aruba Terminal from 2016 operating income, adjusted operating income for the first nine months of 2017 increased \$588 million. The reasons for this increase are described below.

As previously noted, refining segment margin increased \$857 million in the first nine months of 2017 compared to the first nine months of 2016, primarily due to the following:

- *Increase in distillate margins.* We experienced improved distillate margins throughout all our regions for the first nine months of 2017 compared to the first nine months of 2016. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast ultra-low-sulfur diesel was \$12.67 per barrel for the first nine months of 2017 compared to \$9.34 per barrel for the first nine months of 2016, representing a favorable increase of \$3.33 per barrel. Another example is the Brent-based benchmark reference margin for North Atlantic ultra-low-sulfur diesel, which was \$13.78 per barrel for the first nine months of 2017 compared to \$10.74 per barrel for the first nine months of 2016, representing a favorable increase of \$3.04 per barrel. We estimate that the increase in distillate margins per barrel in the first nine months of 2017 compared to the first nine months of 2016 had a positive impact to our refining segment margin of approximately \$833 million.
- *Increase in gasoline margins.* We also experienced improved gasoline margins throughout all our regions for the first nine months of 2017 compared to the first nine months of 2016. For example, the Brent-based benchmark reference margin for U.S. Gulf Coast CBOB gasoline was \$11.17 per barrel for the first nine months of 2017 compared to \$9.54 per barrel for the first nine months of 2016, representing a favorable increase of \$1.63 per barrel. Another example is the WTI-based benchmark reference margin for U.S. Mid-Continent CBOB gasoline which was \$15.38 per barrel for the first nine months of 2017 compared to \$12.64 per barrel for the first nine months of 2016, representing a favorable increase of \$2.74 per barrel. We estimate that the increase in gasoline margins per barrel in the first nine months of 2017 compared to the first nine months of 2016 had a positive impact to our refining segment margin of approximately \$377 million.
- *Higher throughput volumes.* Refining throughput volumes increased by 62,000 barrels per day in the first nine months of 2017. We estimate that the increase in refining throughput volumes had a positive impact on our refining segment margin of approximately \$157 million.
- *Lower discounts on other feedstocks.* In addition to crude oil, we utilize other feedstocks, such as 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 when pricing terms are favorable. While we benefitted from processing these types of feedstocks in the first nine months of 2017, that benefit declined compared to the first nine months of 2016. We estimate that the reduction in the discounts for the other feedstocks that we processed in the first nine months of 2017 had an unfavorable impact to our refining segment margin of approximately \$227 million.

- *Lower discounts on sour crude oils.* The market prices of refined 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 when pricing terms are favorable. While we benefitted from processing these sour crude oils in the first nine months of 2017, that benefit declined compared to the first nine months of 2016. For example, ASCI crude oil processed in our U.S. Gulf Coast region sold at a discount of \$4.28 per barrel to Brent crude oil in the first nine months of 2017 compared to a discount of \$5.18 per barrel in the first nine months of 2016, representing an unfavorable decrease of \$0.90 per barrel. Another example is Maya crude oil, which sold at a discount of \$7.54 per barrel to Brent crude oil in the first nine months of 2017 compared to \$8.73 per barrel in the first nine months of 2016, representing an unfavorable decrease of \$1.19 per barrel. We estimate that the reduction in the discounts for sour crude oils that we processed in the first nine months of 2017 had an unfavorable impact to our refining segment margin of \$151 million.
- *Higher costs of biofuel credits.* As more fully described in Note 13 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, and the cost of these credits (primarily RINs in the U.S.) increased by \$99 million from \$532 million in the first nine months of 2016 to \$631 million in the first nine months of 2017.
- *Increase in charges from VLP.* Charges from the VLP segment for transportation and terminaling services increased \$68 million in the first nine months of 2017 compared to the first nine months of 2016 primarily due to new charges from businesses acquired by VLP in 2016. Details regarding the increase in charges from VLP are discussed in the VLP segment analysis below.

The increase of \$219 million in refining segment operating expenses (excluding depreciation and amortization expense) was primarily due to an increase in energy costs driven by higher natural gas prices (\$ 3.00 per MMBtu in the first nine months of 2017 compared to \$ 2.27 per MMBtu in the first nine months of 2016).

The increase of \$50 million in depreciation and amortization expense associated with our cost of sales was due to an increase in refinery turnaround and catalyst amortization expense primarily due to costs incurred in the latter part of 2016 in connection with significant turnaround projects at our Port Arthur and Texas City Refineries.

Ethanol Segment Results

Ethanol segment operating revenues decreased \$86 million and cost of materials and other decreased \$97 million in the first nine months of 2017 compared to the first nine months of 2016, primarily due to decreases in corn related co-product prices and corn prices, respectively. The resulting \$11 million increase in ethanol segment margin was more than offset by the negative effect from the \$50 million lower of cost or market inventory valuation adjustment in the first nine months of 2016, as well as increases in operating expenses (excluding depreciation and amortization expense) and depreciation and amortization expense associated with our cost of sales of \$25 million and \$15 million, respectively, resulting in a decrease in

operating income of \$79 million , from \$214 million in the first nine months of 2016 to \$135 million in the first nine months of 2017 . The reasons for this decrease are described below.

As previously noted, ethanol segment margin increased \$11 million in the first nine months of 2017 compared to the first nine months of 2016 primarily due to the following:

- *Higher ethanol prices.* Ethanol prices were slightly higher in the first nine months of 2017 compared to the first nine months of 2016 primarily due to an increase in ethanol export demand. For example, the New York Harbor ethanol price was \$1.60 per gallon in the first nine months of 2017 compared to \$1.55 per gallon in the first nine months of 2016 . We estimate that the increase in the price of ethanol had a favorable impact to our ethanol segment margin of \$30 million.
- *Higher production volumes.* Ethanol segment margin was favorably impacted by increased production volumes of 155,000 gallons per day in the first nine months of 2017 compared to the first nine months of 2016 due to reliability improvements. We estimate that the increase in production volumes had a positive impact to our ethanol segment margin of \$25 million.
- *Lower corn prices.* Despite an increase in the CBOT corn price from \$3.62 per bushel in the first nine months of 2016 to \$3.64 per bushel in the first nine months of 2017 , we acquired corn at lower prices due to favorable location differentials, resulting in a decrease in the price we paid for corn in the first nine months of 2017 compared to the first nine months of 2016 . We estimate that the decrease in the price we paid for corn had a favorable impact to our ethanol segment margin of \$18 million.
- *Lower co-product prices.* A decrease in export demand for corn related co-products, primarily distillers grains, had an unfavorable effect on the prices we received. We estimate that the decrease in corn related co-product prices had an unfavorable impact to our ethanol segment margin of \$62 million.

The increase of \$25 million in ethanol segment operating expenses (excluding depreciation and amortization expense) was primarily due to an increase in energy costs driven by higher natural gas prices (\$ 3.00 per MMBtu in the first nine months of 2017 compared to \$ 2.27 per MMBtu in the first nine months of 2016).

The increase of \$15 million in ethanol segment depreciation and amortization expense associated with our cost of sales was primarily due to the write-off of assets that were idled in the first nine months of 2017 .

VLP Segment Results

VLP segment operating revenues increased \$68 million in the first nine months of 2017 compared to the first nine months of 2016 primarily due to incremental revenues generated from transportation and terminaling services provided to the refining segment associated with businesses and assets acquired in 2016 and early 2017 , as discussed below. This \$68 million increase in revenues was partially offset by higher operating expenses (excluding depreciation and amortization expense), other operating expenses, and depreciation and amortization expense associated with our cost of sales of \$3 million , \$3 million , and \$1 million , respectively, resulting in an increase in operating income of \$61 million . Excluding the \$3 million of damages associated with Hurricane Harvey, which are reflected in other operating expenses, adjusted operating income increased by \$64 million compared to the first nine months of 2016 .

VLP segment operating revenues increased \$68 million in the first nine months of 2017 compared to the first nine months of 2016 , primarily due to the following:

- *Incremental terminaling throughput from acquired businesses.* VLP experienced an 18 percent increase in terminaling revenues in the first nine months of 2017 compared to the first nine months of 2016 generated by contributions from the McKee Terminal Services Business and the Meraux and Three Rivers Terminal Services Business, which were acquired by VLP in the second and third quarters of 2016, respectively. The incremental throughput volumes generated by these businesses had a favorable impact to VLP's operating revenues of \$47 million.
- *Incremental operating revenues from acquired undivided interest in crude system assets.* Incremental throughput volumes related to the acquisition of an undivided interest in crude system assets in January 2017 had a favorable impact to VLP's operating revenues of \$7 million.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flows for the Nine Months Ended September 30, 2017

Our operations generated \$3.8 billion of cash in the first nine months of 2017 , driven primarily by net income of \$1.8 billion , noncash charges to income of \$1.6 billion , and a positive change in working capital of \$544 million . Noncash charges included \$1.5 billion of depreciation and amortization expense and \$80 million of deferred income tax expense. See "RESULTS OF OPERATIONS" for further discussion of our operations. The change in our working capital is further detailed in Note 11 of Condensed Notes to Consolidated Financial Statements. This source of cash mainly resulted from:

- an increase in accounts payable primarily as a result of an increase in commodity prices;
- an increase in income taxes payable resulting from higher income tax expense in the third quarter of 2017;
- an increase in accrued expenses mainly due to the timing of payments on our environmental compliance program obligations;
- a decrease in prepaid expenses and other mainly due to the utilization of purchased RINs to satisfy our biofuel blending obligation; and
- an increase in inventory volumes held.

The \$3.8 billion of cash generated by our operations, along with (i) net proceeds of \$36 million from VLP's sale of common units representing limited partner interests to the public and (ii) \$221 million from a favorable foreign exchange rate change on cash, were used mainly to:

- fund \$1.7 billion in capital investments, which include capital expenditures, deferred turnaround and catalyst costs, and investments in joint ventures;
- acquire an undivided interest in crude system assets for \$72 million ;
- purchase common stock for treasury of \$951 million ;
- pay common stock dividends of \$936 million ;
- pay distributions to noncontrolling interests of \$56 million ; and
- increase available cash on hand by \$360 million .

Cash Flows for the Nine Months Ended September 30, 2016

Our operations generated \$3.8 billion of cash in the first nine months of 2016 , driven primarily by net income of \$2.0 billion , noncash charges to income of \$928 million , and a positive change in working capital of \$953 million . Noncash charges included \$1.4 billion of depreciation and amortization expense, \$56 million

for the asset impairment loss associated with our Aruba Terminal, and \$193 million of deferred income tax expense, partially offset by a benefit of \$747 million from a lower of cost or market inventory valuation adjustment. See “RESULTS OF OPERATIONS” for further discussion of our operations. The change in our working capital is further detailed in Note 11 of Condensed Notes to Consolidated Financial Statements. This source of cash mainly resulted from:

- an increase in accounts payable, partially offset by an increase in receivables, primarily as a result of increasing commodity prices; and
- the temporary reduction of our inventories.

The \$3.8 billion of cash generated by our operations, along with \$1.65 billion in proceeds from the issuance of debt (primarily \$1.25 billion of 3.4 percent senior notes due September 15, 2026 and borrowings under the VLP Revolver of \$349 million as discussed in Note 4 of Condensed Notes to Consolidated Financial Statements), were used mainly to:

- fund \$1.4 billion in capital investments, which include capital expenditures, deferred turnaround and catalyst costs, and investments in joint ventures;
- pay a long-term liability of \$137 million owed to a joint venture partner for an owner-method joint venture investment;
- purchase common stock for treasury of \$1.2 billion ;
- pay common stock dividends of \$840 million ;
- pay distributions to noncontrolling interests of \$54 million ; and
- increase available cash on hand by \$1.8 billion .

Capital Investments

For 2017 , we expect to incur approximately \$2.7 billion for capital investments, including capital expenditures, deferred turnaround and catalyst costs, equity-method joint venture investments, owner-method joint venture investments, and undivided interests in capital assets. This consists of approximately \$1.6 billion for stay-in-business capital and \$1.1 billion for growth strategies, including our investments described below. This capital investment estimate excludes potential strategic acquisitions. We continuously evaluate our capital budget and make changes as conditions warrant.

We make investments in equity-method joint ventures, owner-method joint venture investments, undivided interests in certain assets, and new construction projects in order to enhance our operations. As of September 30, 2017 , capital commitments related to these investments included the following:

- We have a 50 percent interest in Diamond Pipeline LLC (Diamond Pipeline), which was formed by Plains to construct and operate a 440-mile, 20-inch crude oil pipeline with a capacity of up to 200,000 barrels per day. The pipeline will deliver domestic sweet crude oil from the Plains’ Cushing, Oklahoma terminal to our Memphis Refinery and will have the ability to connect into the Capline Pipeline. The pipeline is expected to be completed in December 2017 for an estimated cost of \$925 million. We have made cumulative cash contributions of \$420 million into Diamond Pipeline through September 2017 and expect to contribute \$43 million during the remainder of 2017.
- We have a 50 percent interest in MVP, which was formed by Magellan and us to construct, own, and operate the MVP Terminal located adjacent to the Houston Ship Channel in Pasadena, Texas. The MVP Terminal will contain (i) approximately 5 million barrels of storage capacity, (ii) a dock with two ship berths, and (iii) a three-bay truck rack facility. The MVP Terminal will handle refined petroleum products and will be completed in two phases. The MVP Terminal will be connected via

pipeline to our Houston and Texas City Refineries, the Colonial and Explorer pipelines, and Magellan's Galena Park terminal facility. Magellan is the construction manager and will operate the completed terminal, with the completion of phase one and phase two expected in early 2019 and early 2020, respectively. The terminal is estimated to cost \$840 million for phases one and two of the project and will be funded equally by Magellan and us. The project could expand up to four phases with total project cost of approximately \$1.4 billion if warranted by additional demand and agreed to by Magellan and us. We have contributed \$77 million to MVP through September 2017; no further contributions are required to be made during the remainder of 2017.

- We have a 40 percent undivided interest in a project with a subsidiary of Magellan to jointly build a 135-mile, 16-inch refined petroleum products pipeline with a capacity of up to 150,000 barrels per day from Houston to Hearne, Texas. The pipeline is expected to be completed in mid-2019. Our estimated cost for our 40 percent undivided interest in this pipeline is \$170 million. We expect to make capital expenditures of \$11 million during the remainder of 2017.

In addition, we will separately build, own, and operate a terminal in Hearne, a terminal in Williamson County, Texas, and a 70-mile, 12-inch refined petroleum products pipeline connecting the two terminals. The new pipeline and terminals are expected to supply up to 60,000 barrels per day into the central Texas area. Our estimated cost for these projects is \$210 million with expected completion in mid-2019. We have spent \$5 million related to these projects through September 2017 and expect to spend \$29 million during the remainder of 2017.

Contractual Obligations

As of September 30, 2017, our contractual obligations included debt, capital lease obligations, operating leases, purchase obligations, and other long-term liabilities. There were no material changes outside the ordinary course of business with respect to these contractual obligations during the nine months ended September 30, 2017. However, in the ordinary course of business, we recognized capital lease assets and related obligations totaling approximately \$490 million in January 2017 for the lease of storage tanks located at three of our refineries. These lease agreements have initial terms of 10 years each with successive 10-year automatic renewals.

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. All of our ratings on our senior unsecured debt are at or above investment grade level as follows:

Rating Agency	Rating	
	Valero	VLP
Moody's Investors Service	Baa2 (stable outlook)	Baa3 (stable outlook)
Standard & Poor's Ratings Services	BBB (stable outlook)	BBB- (stable outlook)
Fitch Ratings	BBB (stable outlook)	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.

Summary of Credit Facilities

Information about our outstanding borrowings, letters of credit issued, and availability under our credit facilities is reflected in Note 4 of Condensed Notes to Consolidated Financial Statements.

Other Matters Impacting Liquidity and Capital Resources

Stock Purchase Program

On September 21, 2016, our board of directors authorized our purchase of up to an additional \$2.5 billion of our outstanding common stock (the 2016 program) with no expiration date. This authorization was in addition to the remaining amount available under a \$2.5 billion program authorized on July 13, 2015 (the 2015 program). During the first quarter of 2017, we completed our purchases under the 2015 program. As of September 30, 2017, we had approximately \$1.6 billion remaining available under the 2016 program. We have no obligation to make purchases under this program.

Pension Plan Funding

We contributed \$104 million to our pension plans and \$17 million to our other postretirement benefit plans during the nine months ended September 30, 2017. During the fourth quarter of 2017, we plan to contribute approximately \$4 million to our pension plans and \$2 million to our other postretirement benefit plans.

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 as previously discussed above in “OUTLOOK.” In addition, any major upgrades in any of our operating facilities could require material additional expenditures to comply with environmental laws and regulations. See Note 5 of Condensed Notes to Consolidated Financial Statements for a further discussion of our environmental matters.

Tax Matters

The Internal Revenue Service (IRS) has ongoing audits related to our U.S. federal income tax returns from 2010 through 2015, and we have received Revenue Agent Reports (RARs) in connection with the 2010 and 2011 audit. We are contesting certain tax positions and assertions included in the RARs and continue to make progress in resolving certain of these matters with the IRS. We believe that the ultimate settlement of these audits will not be material to our financial position, results of operations, or liquidity.

Cash Held by Our International Subsidiaries

As of September 30, 2017, \$3.3 billion of our cash and temporary cash investments was held by our international subsidiaries. A large portion of this cash can be returned to the U.S. without significant tax consequences, but the remaining amount would be subject to U.S. and certain foreign withholding taxes if it were returned to the U.S. The earnings of our international subsidiaries are taxed by the countries in which they are incorporated, and we intend to reinvest those earnings indefinitely in our international operations.

As a result, we have not accrued for U.S. taxes on those earnings. Cash provided by operating activities in the U.S. continues to be our primary source of funds to finance our U.S. operations and capital expenditures, as well as our dividends and share repurchases.

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.

Sources of Liquidity

We believe that we have sufficient funds from operations and, to the extent necessary, from borrowings under our credit facilities, to fund our ongoing operating requirements. 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.

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, 2017, there were no significant changes to our critical accounting policies since the date our annual report on Form 10-K for the year ended December 31, 2016 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), 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 swaps, 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, natural gas purchases, and corn purchases to lock in the price of those forecasted transactions at existing market prices that we deem favorable.

We use the futures markets for the available liquidity, which provides greater flexibility in transacting our price risk activities. We use swaps primarily to manage our price exposure. We also enter into certain commodity derivative instruments for trading purposes to take advantage of existing market conditions related to future results of operations and cash flows.

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 positions at the end of the reporting period with which we have market risk (in millions):

	Derivative Instruments Held For	
	Non-Trading Purposes	Trading Purposes
September 30, 2017:		
Gain (loss) in fair value resulting from:		
10% increase in underlying commodity prices	\$ (60)	\$ 3
10% decrease in underlying commodity prices	60	(1)
December 31, 2016:		
Gain (loss) in fair value resulting from:		
10% increase in underlying commodity prices	61	(22)
10% decrease in underlying commodity prices	(61)	11

See Note 13 of Condensed Notes to Consolidated Financial Statements for notional volumes associated with these derivative contracts as of September 30, 2017 .

COMPLIANCE PROGRAM PRICE RISK

We are exposed to market risk related to the volatility in the price of biofuel credits and GHG emission credits needed to comply with various governmental and regulatory programs. To manage these risks, 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, 2017, there was an immaterial amount of gain or loss in the fair value of derivative instruments that would result from a 10 percent increase or decrease in the underlying price of the contracts. See Note 13 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, 2017								
	Expected Maturity Dates							Fair Value
	2017	2018	2019	2020	2021	There-after	Total (a)	
Fixed rate	\$ —	\$ —	\$ 750	\$ 850	\$ —	\$ 6,224	\$ 7,824	\$ 9,014
Average interest rate	—%	—%	9.4%	6.1%	—%	5.6%	6.0%	
Floating rate (b)	\$ 1	\$ 106	\$ 6	\$ 36	\$ 6	\$ 26	\$ 181	\$ 181
Average interest rate	3.8%	2.0%	3.8%	2.9%	3.8%	3.8%	2.6%	

December 31, 2016								
	Expected Maturity Dates							Fair Value
	2017	2018	2019	2020	2021	There-after	Total (a)	
Fixed rate	\$ —	\$ —	\$ 750	\$ 850	\$ —	\$ 6,224	\$ 7,824	\$ 8,701
Average interest rate	—%	—%	9.4%	6.1%	—%	5.6%	6.0%	
Floating rate (b)	\$ 105	\$ 5	\$ 5	\$ 35	\$ 5	\$ 26	\$ 181	\$ 181
Average interest rate	1.4%	3.4%	3.4%	2.5%	3.4%	3.4%	2.1%	

(a) Excludes unamortized discounts and debt issuance costs.

(b) As of September 30, 2017 and December 31, 2016, we had an interest rate swap associated with \$51 million 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, 2017, we had commitments to purchase \$514 million of U.S. dollars. Our market risk was minimal on these contracts, as all of them matured on or before October 31, 2017.

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, 2017 .

(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, 2016 .

Litigation

We incorporate by reference into this Item our disclosures made in Part I, Item 1 of this report included in Note 5 of Condensed Notes to Consolidated Financial Statements under the caption “*Environmental Matters*” and “*Litigation Matters*.”

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.

South Coast Air Quality Management District (SCAQMD) (Wilmington Refinery). In our Form 10-K for the year ended December 31, 2016 , we reported that we had multiple Notices of Violations (NOVs) issued by the SCAQMD. These NOVs are for alleged reporting violations and excess emissions at our Wilmington Refinery. We recently entered into a Settlement Agreement with the SCAQMD to resolve three NOVs, and we continue to work with the SCAQMD to resolve the remaining NOVs.

U.S. EPA (Ardmore Refinery). In our Form 10-K for the year ended December 31, 2016 , we reported that we had received a penalty demand in the amount of \$730,820 from the U.S. EPA for alleged reporting violations at our Ardmore Refinery. We have resolved this matter with the U.S. EPA.

People of the State of Illinois, ex rel. v. The Premcor Refining Group Inc., et al. , Third Judicial Circuit Court, Madison County (Case No. 03-CH-00459, filed May 29, 2003) (Hartford Refinery and terminal). In our Form 10-K for the year ended December 31, 2016 , we reported that the Illinois EPA had filed suit against The Premcor Refining Group Inc. alleging violations of air and waste regulations at Premcor’s Hartford, Illinois terminal and closed refinery. We recently entered into a Partial Consent Order resolving various air and permitting violations. Our litigation with other potentially responsible parties (PRPs) and the Illinois EPA continues. We continue to assert our various defenses, limitations and potential rights for contribution from the other PRPs.

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, 2016 .

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 2017 .

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 2017	361,208	\$ 67.43	5,508	355,700	\$1.9 billion
August 2017	1,826,381	\$ 66.79	781	1,825,600	\$1.7 billion
September 2017	2,040,515	\$ 70.53	115	2,040,400	\$1.6 billion
Total	4,228,104	\$ 68.65	6,404	4,221,700	\$1.6 billion

(a) The shares reported in this column represent purchases settled in the third quarter of 2017 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 September 21, 2016 , we announced that our board of directors authorized our purchase of up to \$2.5 billion of our outstanding common stock (the 2016 program) with no expiration date, which was in addition to the remaining amount available under our \$2.5 billion program previously authorized on July 13, 2015 (the 2015 program). During the first quarter of 2017, we completed our purchases under the 2015 program. As of September 30, 2017 , we had \$1.6 billion remaining available for purchase under the 2016 program.

ITEM 6. EXHIBITS

Exhibit No.	Description
3.01	Amended and Restated Bylaws of Valero Energy Corporation—incorporated by reference to Exhibit 3.01 to Valero’s Current Report on Form 8-K dated September 20, 2017 and filed September 21, 2017 (SEC File No. 1-13175).
*31.01	Rule 13a-14(a) Certification (under Section 302 of the Sarbanes-Oxley Act of 2002) of principal executive officer.
*31.02	Rule 13a-14(a) Certification (under Section 302 of the Sarbanes-Oxley Act of 2002) of principal financial officer.
**32.01	Section 1350 Certifications (as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002).
***101	Interactive Data Files

* Filed herewith.

** Furnished herewith.

*** Submitted electronically 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/ Michael S. Ciskowski
Michael S. Ciskowski
Executive Vice President and
Chief Financial Officer
(Duly Authorized Officer and Principal
Financial and Accounting Officer)

Date: November 7, 2017

**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, 2017

/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, Michael S. Ciskowski, 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, 2017

/s/ Michael S. Ciskowski

Michael S. Ciskowski
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, 2017, 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, 2017

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, 2017, 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/ Michael S. Ciskowski

Michael S. Ciskowski

Executive Vice President and Chief Financial Officer

November 7, 2017

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.