

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

(Mark One)

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

**For the fiscal year ended December 31, 2019**

OR

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

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

Commission file number 001-13175

## VALERO ENERGY CORPORATION

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**74-1828067**

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

**One Valero Way**

**San Antonio, Texas 78249**

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: **(210) 345-2000**

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	VLO	New York Stock Exchange

### Securities registered pursuant to Section 12(g) of the Act: None.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes ☐ No ☒

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐

Smaller reporting company ☐ Emerging growth company ☐

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

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

The aggregate market value of the voting and non-voting common stock held by non-affiliates was approximately \$35.5 billion based on the last sales price quoted as of June 28, 2019 on the New York Stock Exchange, the last business day of the registrant's most recently completed second fiscal quarter.

As of January 31, 2020, 409,337,126 shares of the registrant's common stock were outstanding.

### DOCUMENTS INCORPORATED BY REFERENCE

We intend to file with the Securities and Exchange Commission a definitive Proxy Statement for our Annual Meeting of Stockholders scheduled for April 30, 2020, at which directors will be elected. Portions of the 2020 Proxy Statement are incorporated by reference in Part III of this Form 10-K and are deemed to be a part of this report.

## CROSS-REFERENCE SHEET

The following table indicates the headings in the 2020 Proxy Statement where certain information required in Part III of this Form 10-K may be found.

<b><u>Form 10-K Item</u></b> <b><u>No. and Caption</u></b>	<b><u>Heading in 2020 Proxy Statement</u></b>
10. Directors, Executive Officers and Corporate Governance	<i>Information Regarding the Board of Directors, Independent Directors, Audit Committee, Proposal No. 1 Election of Directors, Information Concerning Nominees and Other Directors, Identification of Executive Officers, and Governance Documents and Codes of Ethics</i>
11. Executive Compensation	<i>Compensation Committee, Compensation Discussion and Analysis, Executive Compensation, Director Compensation, Pay Ratio Disclosure, and Certain Relationships and Related Transactions</i>
12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	<i>Beneficial Ownership of Valero Securities and Equity Compensation Plan Information</i>
13. Certain Relationships and Related Transactions, and Director Independence	<i>Certain Relationships and Related Transactions and Independent Directors</i>
14. Principal Accountant Fees and Services	<i>KPMG LLP Fees and Audit Committee Pre-Approval Policy</i>

Copies of all documents incorporated by reference, other than exhibits to such documents, will be provided without charge to each person who receives a copy of this Form 10-K upon written request to Valero Energy Corporation, Attn: Secretary, P.O. Box 696000, San Antonio, Texas 78269-6000.

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The terms “Valero,” “we,” “our,” and “us,” as used in this report, may refer to Valero Energy Corporation, to one or more of its consolidated subsidiaries, or to all of them taken as a whole. In this Form 10-K, we make certain forward-looking statements, including statements regarding our plans, strategies, objectives, expectations, intentions, and resources under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. You should read our forward-looking statements together with our disclosures beginning on page 23 of this report under the heading: “CAUTIONARY STATEMENT FOR THE PURPOSE OF SAFE HARBOR PROVISIONS OF THE PRIVATE SECURITIES LITIGATION REFORM ACT OF 1995.”

## **PART I**

### **ITEMS 1. and 2. BUSINESS AND PROPERTIES**

#### **OVERVIEW**

We are a Fortune 500 company based in San Antonio, Texas. Our corporate offices are at One Valero Way, San Antonio, Texas, 78249, and our telephone number is (210) 345-2000. We were incorporated in Delaware in 1981 under the name Valero Refining and Marketing Company. We changed our name to Valero Energy Corporation on August 1, 1997. Our common stock trades on the New York Stock Exchange (NYSE) under the trading symbol “VLO.” On January 31, 2020, we had 10,222 employees.

We own 15 petroleum refineries located in the United States (U.S.), Canada, and the United Kingdom (U.K.) with a combined throughput capacity of approximately 3.15 million barrels per day (BPD). Our refineries produce conventional gasolines, premium gasolines, gasoline meeting the specifications of the California Air Resources Board (CARB), diesel, low-sulfur diesel, ultra-low-sulfur diesel, CARB diesel, other distillates, jet fuel, asphalt, petrochemicals, lubricants, and other refined petroleum products. We also own 14 ethanol plants located in the Mid-Continent region of the U.S. with a combined production capacity of approximately 1.73 billion gallons per year. We are also a joint venture partner in Diamond Green Diesel Holdings LLC (DGD), which owns and operates a renewable diesel plant in Norco, Louisiana. We sell our products in the wholesale rack or bulk markets in the U.S., Canada, the U.K., Ireland, and Latin America. Approximately 7,000 outlets carry our brand names.

On January 10, 2019, we completed our acquisition of all of the outstanding publicly held common units of Valero Energy Partners LP (VLP) as described in Note 2 of Notes to Consolidated Financial Statements, which is incorporated herein by reference.

#### **AVAILABLE INFORMATION**

Our website address is [www.valero.com](http://www.valero.com). Information on our website is not part of this report. Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and other reports, as well as any amendments to those reports, filed with (or furnished to) the U.S. Securities and Exchange Commission (SEC) are available on our website (under About Valero > Investor Relations > Financial Information > SEC Filings) free of charge, soon after we file or furnish such material. In this same location, we also post our corporate governance guidelines and other governance policies, codes of ethics, and the charters of the committees of our board of directors. These documents are available in print to any stockholder that makes a written request to Valero Energy Corporation, Attn: Secretary, P.O. Box 696000, San Antonio, Texas 78269-6000.

## VALERO'S OPERATIONS

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

As a result, as of December 31, 2019, we had three reportable segments as follows:

- *Refining segment* includes our refining operations, the associated marketing activities, and logistics assets that support our refining operations;
- *Ethanol segment* includes our ethanol operations, the associated marketing activities, and logistics assets that support our ethanol operations; and
- *Renewable diesel segment* includes the operations of DGD, our consolidated joint venture, as discussed in Note 12 of Notes to Consolidated Financial Statements, which is incorporated herein by reference.

Financial information about these segments is presented in Note 17 of Notes to Consolidated Financial Statements, which is incorporated herein by reference.

## REFINING

### Refining Operations

As of December 31, 2019, our refining operations included 15 petroleum refineries in the U.S., Canada, and the U.K., with a combined total throughput capacity of approximately 3.15 million BPD. The following table presents the locations of these refineries and their approximate feedstock throughput capacities as of December 31, 2019.

Refinery	Location	Throughput Capacity (a) (BPD)
<b>U.S.</b>		
Benicia	California	170,000
Wilmington	California	135,000
Meraux	Louisiana	135,000
St. Charles	Louisiana	340,000
Ardmore	Oklahoma	90,000
Memphis	Tennessee	195,000
Corpus Christi (b)	Texas	370,000
Houston	Texas	255,000
McKee	Texas	200,000
Port Arthur	Texas	395,000
Texas City	Texas	260,000
Three Rivers	Texas	100,000
<b>Canada</b>		
Quebec City	Quebec, Canada	235,000
<b>U.K.</b>		
Pembroke	Wales, U.K.	270,000
<b>Total</b>		<b>3,150,000</b>

(a) “Throughput capacity” represents estimated capacity for processing crude oil, inter-mediate, and other feedstocks. Total estimated crude oil capacity is approximately 2.6 million BPD.

(b) Represents the combined capacities of two refineries – the Corpus Christi East and Corpus Christi West Refineries.

The following table presents the percentages of principal charges and yields (on a combined basis) for all of our refineries for 2019, during which period our total combined throughput volumes averaged approximately 3.0 million BPD.

Combined Total Refining System Charges and Yields		
<b>Charges</b>		
	sour crude oil	23%
	sweet crude oil	54%
	residual fuel oil	7%
	other feedstocks	5%
	blendstocks	11%
<b>Yields</b>		
	gasolines and blendstocks	48%
	distillates	38%
	other products (primarily includes petrochemicals, gas oils, No. 6 fuel oil, petroleum coke, sulfur and asphalt)	14%

### *California*

**Benicia Refinery.** Our Benicia Refinery is located northeast of San Francisco on the Carquinez Straits of San Francisco Bay. It processes sour crude oils into gasoline, diesel, jet fuel, and asphalt. Gasoline production is primarily California Reformulated Blendstock Gasoline for Oxygenate Blending (CARBOB), which meets CARB specifications when blended with ethanol. The refinery receives crude oil feedstocks via a marine dock and crude oil pipelines connected to a southern California crude oil delivery system. Most of the refinery's products are distributed via pipeline and truck rack into northern California markets.

**Wilmington Refinery.** Our Wilmington Refinery is located near Los Angeles. The refinery processes a blend of heavy and high-sulfur crude oils. The refinery produces CARBOB gasoline, diesel, CARB diesel, jet fuel, and asphalt. The refinery is connected by pipeline to marine terminals and associated dock facilities that move and store crude oil and other feedstocks. Refined petroleum products are distributed via pipeline systems to various third-party terminals in southern California, Nevada, and Arizona.

### *Louisiana*

**Meraux Refinery.** Our Meraux Refinery is located approximately 15 miles southeast of New Orleans along the Mississippi River. The refinery processes sour and sweet crude oils into gasoline, diesel, jet fuel, and high sulfur fuel oil. The refinery receives crude oil at its dock and has access to the Louisiana Offshore Oil Port. Finished products are shipped from the refinery's dock and through the Colonial pipeline. The refinery is located about 40 miles from our St. Charles Refinery, allowing for integration of feedstocks and refined petroleum product blending.

**St. Charles Refinery.** Our St. Charles Refinery is located approximately 25 miles west of New Orleans along the Mississippi River. The refinery processes sour crude oils and other feedstocks into gasoline and diesel. The refinery receives crude oil over docks and has access to the Louisiana Offshore Oil Port. Finished products are shipped over these docks and through our Parkway pipeline and the Bengal pipeline, which ultimately provide access to the Plantation and Colonial pipeline networks.

### *Oklahoma*

*Ardmore Refinery*. Our Ardmore Refinery is located in Oklahoma, approximately 100 miles south of Oklahoma City. It processes sweet and sour crude oils into gasoline, diesel, and asphalt. The refinery predominantly receives Permian Basin and Cushing-sourced crude oil via third-party pipelines. Refined petroleum products are transported via rail, trucks, and the Magellan pipeline system.

### *Tennessee*

*Memphis Refinery*. Our Memphis Refinery is located in Tennessee along the Mississippi River. It processes primarily sweet crude oils. Most of its production is gasoline, diesel, and jet fuels. Crude oil supply is primarily from Cushing, Oklahoma over the Diamond Pipeline. Crude oil can also be received, along with other feedstocks, via barge. Most of the refinery's products are distributed via truck rack and barges.

### *Texas*

*Corpus Christi East and West Refineries*. Our Corpus Christi East and West Refineries are located on the Texas Gulf Coast along the Corpus Christi Ship Channel. The East Refinery processes sour crude oil, and the West Refinery processes sweet crude oil, sour crude oil, and residual fuel oil. The feedstocks are delivered by tanker and barge via deepwater docking facilities along the Corpus Christi Ship Channel, and West Texas or South Texas crude oil is delivered via pipelines. The refineries' physical locations allow for the transfer of various feedstocks and blending components between them. The refineries produce gasoline, aromatics, jet fuel, diesel, and asphalt. Truck racks service local markets for gasoline, diesel, jet fuels, liquefied petroleum gases, and asphalt. These and other finished products are also distributed by ship and barge across docks and third-party pipelines.

*Houston Refinery*. Our Houston Refinery is located on the Houston Ship Channel. It processes sweet crude and intermediate oils into gasoline, jet fuel, and diesel. The refinery successfully commissioned a new alkylation unit in 2019. The refinery receives its feedstocks primarily by various interconnecting pipelines and also has waterborne-receiving capability at deepwater docking facilities along the Houston Ship Channel. The majority of its finished products are delivered to local, mid-continent U.S., and northeastern U.S. markets through various pipelines, including the Colonial and Explorer pipelines.

*McKee Refinery*. Our McKee Refinery is located in the Texas Panhandle. It processes primarily sweet crude oils into gasoline, diesel, jet fuels, and asphalt. The refinery has access to local and Permian Basin crude oil sources via third-party pipelines. Refined petroleum products are transported primarily via third-party pipelines and rail to markets in Texas, New Mexico, Arizona, Colorado, Oklahoma, and Mexico.

*Port Arthur Refinery*. Our Port Arthur Refinery is located on the Texas Gulf Coast approximately 90 miles east of Houston. The refinery processes heavy sour crude oils and other feedstocks into gasoline, diesel, and jet fuel. The refinery receives crude oil by rail, marine docks, and pipelines. Finished products are distributed into the Colonial, Explorer, and other pipelines, and across the refinery docks into ships and barges.

*Texas City Refinery*. Our Texas City Refinery is located southeast of Houston on the Houston Ship Channel. The refinery processes crude oils into gasoline, diesel, and jet fuel. The refinery receives its feedstocks by pipeline and by ship or barge via deepwater docking facilities along the Houston Ship Channel. The refinery uses ships and barges, as well as the Colonial, Explorer, and other pipelines for distribution of its products.

*Three Rivers Refinery*. Our Three Rivers Refinery is located in South Texas between Corpus Christi and San Antonio. It primarily processes sweet crude oils into gasoline, distillates, and aromatics. The refinery has access to crude oil from West Texas and South Texas through third-party pipelines and trucks. The refinery distributes its refined petroleum products primarily through third-party pipelines.



### *Canada*

**Quebec City Refinery.** Our Quebec City Refinery is located in Lévis, Canada (near Quebec City). It processes sweet crude oils into gasoline, diesel, jet fuel, heating oil, and low-sulfur fuel oil. The refinery receives crude oil by ship at its deepwater dock on the St. Lawrence River and by pipeline and ship from western Canada. The refinery transports its products through our pipeline from Quebec City to our terminal in Montreal and to various other terminals throughout eastern Canada by rail, ships, trucks, and third-party pipelines.

### *U.K.*

**Pembroke Refinery.** Our Pembroke Refinery is located in the County of Pembrokeshire in southwest Wales, U.K. The refinery processes primarily sweet crude oils into gasoline, diesel, jet fuel, heating oil, and low-sulfur fuel oil. The refinery receives all of its feedstocks and delivers some of its products by ship and barge via deepwater docking facilities along the Milford Haven Waterway, with its remaining products being delivered through our Mainline pipeline system and by trucks.

### *Feedstock Supply*

Our crude oil feedstocks are purchased through a combination of term and spot contracts. Our term supply agreements are at market-related prices and are purchased directly or indirectly from various national oil companies as well as international and U.S. oil companies. The contracts generally permit the parties to amend the contracts (or terminate them), effective as of the next scheduled renewal date, by giving the other party proper notice within a prescribed period of time (e.g., 60 days, 6 months) before expiration of the current term. The majority of the crude oil purchased under our term contracts is purchased at the producer's official stated price (i.e., the "market" price established by the seller for all purchasers) and not at a negotiated price specific to us.

## **Marketing**

### *Overview*

We sell refined petroleum products in both the wholesale rack and bulk markets. These sales include refined petroleum products that are manufactured in our refining operations, as well as refined petroleum products purchased or received on exchange from third parties. Most of our refineries have access to marine transportation facilities and interconnect with common-carrier pipeline systems, allowing us to sell products in the U.S., Canada, the U.K., and other countries.

### *Wholesale Rack Sales*

We sell our gasoline and distillate products, as well as other products, such as asphalt, lube oils, and natural gas liquids (NGLs), on a wholesale basis through an extensive rack marketing network. The principal purchasers of our refined petroleum products from terminal truck racks are wholesalers, distributors, retailers, and truck-delivered end users throughout the U.S., Canada, the U.K., Ireland, and Latin America.

The majority of our rack volume is sold through unbranded channels. The remainder is sold to distributors and dealers that are members of the Valero-brand family that operate 5,158 branded sites in the U.S., 874 branded sites in the U.K. and Ireland, and 795 branded sites in Canada as of December 31, 2019. These sites are independently owned and are supplied by us under multi-year contracts. For branded sites, products are sold under the Valero<sup>®</sup>, Beacon<sup>®</sup>, Diamond Shamrock<sup>®</sup>, and Shamrock<sup>®</sup> brands in the U.S., the Texaco<sup>®</sup> brand in the U.K. and Ireland, and the Ultramar<sup>®</sup> brand in Canada.

### *Bulk Sales*

We also sell our gasoline and distillate products, as well as other products, such as asphalt, petrochemicals, and NGLs, through bulk sales channels in the U.S. and international markets. Our bulk sales are made to

various oil companies, traders, and bulk end-users, such as railroads, airlines, and utilities. Our bulk sales are transported primarily by pipeline, barges, and tankers to major tank farms and trading hubs.

We also enter into refined petroleum product exchange and purchase agreements. These agreements help minimize transportation costs, optimize refinery utilization, balance refined petroleum product availability, broaden geographic distribution, and provide access to markets not connected to our refined product pipeline systems. Exchange agreements provide for the delivery of refined petroleum products by us to unaffiliated companies at our and third-parties' terminals in exchange for delivery of a similar amount of refined petroleum products to us by these unaffiliated companies at specified locations. Purchase agreements involve our purchase of refined petroleum products from third parties with delivery occurring at specified locations.

### **Logistics**

We own logistics assets (crude oil pipelines, refined petroleum product pipelines, terminals, tanks, marine docks, truck rack bays, and other assets) that support our refining operations.

### ***ETHANOL***

We own 14 ethanol plants with a combined ethanol production capacity of 1.73 billion gallons per year. Our ethanol plants are dry mill facilities that process corn to produce ethanol, distillers grains, and corn oil. We source our corn supply from local farmers and commercial elevators. Our facilities receive corn primarily by rail and truck. We publish on our website a corn bid for local farmers and cooperative dealers to facilitate corn supply transactions.

We sell our ethanol primarily to refiners and gasoline blenders under term and spot contracts in bulk markets such as New York, Chicago, the U.S. Gulf Coast, Florida, and the U.S. West Coast. We also export our ethanol into the global markets. We ship our dry distillers grains (DDGs) by truck or rail primarily to animal feed customers in the U.S. and Mexico. We also sell modified distillers grains locally at our plant sites, and corn oil by truck and rail. We distribute our ethanol through logistics assets, which include railcars owned by us.

The following table presents the locations of our ethanol plants, their approximate annual production capacities for ethanol (in millions of gallons) and DDGs (in tons), and their approximate annual corn processing capacities (in millions of bushels).

State	City	Ethanol Production Capacity	Production of DDGs	Corn Processed
<b>Indiana</b>	Bluffton	115	302,000	40
	Linden	135	355,000	47
	Mount Vernon	100	263,000	35
<b>Iowa</b>	Albert City	135	355,000	47
	Charles City	140	368,000	49
	Fort Dodge	140	368,000	49
	Hartley	140	368,000	49
	Lakota	110	289,000	38
<b>Michigan</b>	Riga	55	145,000	19
<b>Minnesota</b>	Welcome	140	368,000	49
<b>Nebraska</b>	Albion	135	355,000	47
<b>Ohio</b>	Bloomington	135	355,000	47
<b>South Dakota</b>	Aurora	140	368,000	49
<b>Wisconsin</b>	Jefferson	110	352,000	41
<b>Total</b>		<b>1,730</b>	<b>4,611,000</b>	<b>606</b>

The combined production of ethanol from our plants averaged 4.3 million gallons per day for 2019.

#### ***RENEWABLE DIESEL***

Our renewable segment includes the operations of DGD, which owns and operates a biomass-based diesel plant (the DGD Plant) that processes animal fats, used cooking oils, and other vegetable oils into renewable diesel. The DGD Plant is located next to our St. Charles Refinery in Norco, Louisiana. During 2019, the DGD Plant's capacity was approximately 18,000 BPD. The DGD Plant is capable of annually converting approximately 2.3 billion pounds of rendered and recycled material into more than 275 million gallons of renewable diesel. In 2019, we began an expansion of the DGD Plant that is expected to increase production up to 675 million gallons of renewable diesel annually. DGD is in the advanced engineering review phase for a potential new renewable diesel plant to be located in Port Arthur, Texas.

## ENVIRONMENTAL MATTERS

We incorporate by reference into this Item the environmental disclosures contained in the following sections of this report:

- Item 1A, “RISK FACTORS”—*Compliance with and changes in environmental laws, including proposed climate change laws and regulations, could adversely affect our performance;*
- Item 1A, “RISK FACTORS”—*Compliance with the U.S. Environmental Protection Agency (EPA) Renewable Fuel Standard (RFS) could adversely affect our performance;*
- Item 1A, “RISK FACTORS”—*We may incur additional costs as a result of our use of rail cars for the transportation of crude oil and the products that we manufacture;*
- Item 3, “LEGAL PROCEEDINGS” under the caption “ENVIRONMENTAL ENFORCEMENT MATTERS,” and;
- Item 8, “FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA” in Note 8 of Notes to Consolidated Financial Statements.

*Capital Expenditures Attributable to Compliance with Environmental Regulations.* In 2019, our capital expenditures attributable to compliance with environmental regulations were \$235 million, and they are currently estimated to be \$14 million for 2020 and \$20 million for 2021. The estimates for 2020 and 2021 do not include amounts related to capital investments at our facilities that management has deemed to be strategic investments. These amounts could materially change as a result of governmental and regulatory actions.

## PROPERTIES

Our principal properties are described above under the caption “VALERO’S OPERATIONS,” and that information is incorporated herein by reference. We believe that our properties and facilities are generally adequate for our operations and that our facilities are maintained in a good state of repair. As of December 31, 2019, we were the lessee under a number of cancelable and noncancelable leases for certain properties. Our leases are discussed in Note 5 of Notes to Consolidated Financial Statements, which is incorporated herein by reference. Financial information about our properties is presented in Note 6 of Notes to Consolidated Financial Statements, which is incorporated herein by reference.

Our patents relating to our refining operations are not material to us as a whole. The trademarks and tradenames under which we conduct our branded wholesale business — Valero®, Diamond Shamrock®, Shamrock®, Ultramar®, Beacon®, and Texaco®— and other trademarks employed in the marketing of refined petroleum products are integral to our wholesale rack marketing operations.

## ITEM 1A. RISK FACTORS

You should carefully consider the following risk factors in addition to the other information included in this report. Each of these risk factors could adversely affect our business, operating results, and/or financial condition, as well as adversely affect the value of an investment in our common stock.

***Our financial results are affected by volatile refining margins, which are dependent upon factors beyond our control, including the price of crude oil and the market price at which we can sell refined petroleum products.***

Our financial results are primarily affected by the relationship, or margin, between refined petroleum product prices and the prices for crude oil and other feedstocks. Historically, refining margins have been volatile, and we believe they will continue to be volatile in the future. Our cost to acquire feedstocks and the price at which we can ultimately sell refined petroleum products depend upon several factors beyond our control, including regional and global supply of and demand for crude oil, gasoline, diesel, and other feedstocks and refined petroleum products. These in turn depend on, among other things, the availability and quantity of imports, the production levels of U.S. and international suppliers, levels of refined petroleum product inventories, productivity and growth (or the lack thereof) of U.S. and global economies, U.S. relationships with foreign governments, political affairs, and the extent of governmental regulation.

Some of these factors can vary by region and may change quickly, adding to market volatility, while others may have longer-term effects. The longer-term effects of these and other factors on refining and marketing margins are uncertain. We do not produce crude oil and must purchase all of the crude oil we refine. We may purchase our crude oil and other refinery feedstocks long before we refine them and sell the refined petroleum products. Price level changes during the period between purchasing feedstocks and selling the refined petroleum products from these feedstocks could have a significant effect on our financial results. A decline in market prices may negatively impact the carrying value of our inventories.

Economic turmoil and political unrest or hostilities, including the threat of future terrorist attacks, could affect the economies of the U.S. and other countries. Lower levels of economic activity could result in declines in energy consumption, including declines in the demand for and consumption of our refined petroleum products, which could cause our revenues and margins to decline and limit our future growth prospects.

Refining margins are also significantly impacted by additional refinery conversion capacity through the expansion of existing refineries or the construction of new refineries. Worldwide refining capacity expansions may result in refining production capability exceeding refined petroleum product demand, which would have an adverse effect on refining margins.

A significant portion of our profitability is derived from the ability to purchase and process crude oil feedstocks that historically have been cheaper than benchmark crude oils, such as Louisiana Light Sweet (LLS) and Brent crude oils. These crude oil feedstock differentials vary significantly depending on overall economic conditions and trends and conditions within the markets for crude oil and refined petroleum products, and they could decline in the future, which would have a negative impact on our results of operations.

***Compliance with and changes in environmental laws, including proposed climate change laws and regulations, could adversely affect our performance.***

The principal environmental risks associated with our operations are emissions into the air and releases into the soil, surface water, or groundwater. Our operations are subject to extensive environmental laws and regulations, including those relating to the discharge of materials into the environment, waste management, pollution prevention measures, greenhouse gas (GHG) emissions, and characteristics and composition of fuels, including gasoline and diesel. Certain of these laws and regulations could impose obligations to conduct assessment or remediation efforts at our facilities as well as at formerly owned properties or third-party sites where we have taken wastes for disposal or where our wastes have migrated. Environmental laws and regulations also may impose liability on us for the conduct of third parties, or for actions that complied with applicable requirements when taken, regardless of negligence or fault. If we violate or fail to comply with these laws and regulations, we could be fined or otherwise sanctioned.

Because environmental laws and regulations are becoming more stringent and new environmental laws and regulations are continuously being enacted or proposed, such as those relating to GHG emissions and climate change, the level of expenditures required for environmental matters could increase in the future. Current and future legislative action and regulatory initiatives could result in changes to operating permits, material changes in operations, increased capital expenditures and operating costs, increased costs of the goods we sell, and decreased demand for our products that cannot be assessed with certainty at this time. We may be required to make expenditures to modify operations, discontinue use of certain process units, or install pollution control equipment that could materially and adversely affect our business, financial condition, results of operations, and liquidity.

For example, in 2015, the U.S., Canada, and the U.K. participated in the United Nations Conference on Climate Change, which led to the creation of the Paris Agreement. The Paris Agreement, which was signed by the U.S. in April 2016, requires countries to review and “represent a progression” in their intended nationally determined contributions (which set GHG emission reduction goals) every five years beginning in 2020. In November 2019, the current U.S. administration served notice on the United Nations that the U.S. would withdraw from the Paris Agreement in 2020. There are no guarantees that the Paris Agreement will not be re-implemented in the U.S. or re-implemented in part by specific U.S. states or local governments. Regardless, the Paris Agreement could still affect our operations in Canada, the U.K., Ireland, and Latin America. Restrictions on emissions of methane or carbon dioxide that have been or may be imposed in various U.S. states, at the U.S. federal level, or in other countries could adversely affect the oil and gas industry.

***Investor sentiment towards climate change, fossil fuels, and sustainability could adversely affect our business and our stock price.***

There have been efforts in recent years aimed at the investment community, including investment advisors, sovereign wealth funds, public pension funds, universities and other groups, to promote the divestment of shares of energy companies, as well as to pressure lenders and other financial services companies to limit or curtail activities with energy companies. If these efforts are successful, our stock price and our ability to access capital markets may be negatively impacted.

Members of the investment community are also increasing their focus on sustainability practices, including practices related to GHGs and climate change, in the energy industry. As a result, we may face increasing pressure regarding our sustainability disclosures and practices. Additionally, members of the investment community may screen companies such as ours for sustainability performance before investing in our stock.

If we are unable to meet the sustainability standards set by these investors, we may lose investors, our stock price may be negatively impacted and our reputation may be negatively affected.

***Severe weather events may have an adverse effect on our assets and operations.***

Severe weather events, such as storms, droughts, or floods, could have an adverse effect on our operations. Members within the scientific community believe that an increasing concentration of GHG emissions in the Earth's atmosphere may contribute to climate changes that can have significant physical effects, including an increased frequency and severity of these types of events.

***Compliance with the U.S. Environmental Protection Agency (EPA) Renewable Fuel Standard (RFS) could adversely affect our performance.***

The U.S. EPA has implemented the RFS pursuant to the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. The RFS program sets annual quotas for the quantity of renewable fuels (such as ethanol and diesel) that must be blended into transportation fuels consumed in the U.S. A Renewable Identification Number (RIN) is assigned to each gallon of renewable fuel produced in or imported into the U.S. As a producer of petroleum-based transportation fuels, we are obligated to blend renewable fuels into the products we produce at a rate that is at least commensurate to the U.S. EPA's quota and, to the extent we do not, we must purchase RINs in the open market to satisfy our obligation under the RFS program.

We are exposed to the volatility in the market price of RINs. We cannot predict the future prices of RINs. RINs prices are dependent upon a variety of factors, including U.S. EPA regulations, the availability of RINs for purchase, and levels of transportation fuels produced, which can vary significantly from quarter to quarter. If sufficient RINs are unavailable for purchase, if we have to pay a significantly higher price for RINs, or if we are otherwise unable to meet the U.S. EPA's RFS mandates, our results of operations and cash flows could be adversely affected.

***Disruption of our ability to obtain crude oil could adversely affect our operations.***

A significant portion of our feedstock requirements is satisfied through supplies originating in the Middle East, Africa, Asia, North America, and South America. We are, therefore, subject to the political, geographic, and economic risks attendant to doing business with suppliers located in, and supplies originating from, these areas. If one or more of our supply contracts were terminated, or if political events disrupt our traditional crude oil supply, we believe that adequate alternative supplies of crude oil would be available, but it is possible that we would be unable to find alternative sources of supply. If we are unable to obtain adequate crude oil volumes or are able to obtain such volumes only at unfavorable prices, our results of operations could be materially adversely affected, including reduced sales volumes of refined petroleum products or reduced margins as a result of higher crude oil costs.

In addition, the U.S. government can prevent or restrict us from doing business in or with other countries. These restrictions, and those of other governments, could limit our ability to gain access to business opportunities in various countries. Actions by both the U.S. and other countries have affected our operations in the past and will continue to do so in the future.

***Any attempt by the U.S. government to withdraw from or materially modify existing international trade agreements could adversely affect our business, financial condition, and results of operations.***

The current U.S. administration has questioned certain existing and proposed trade agreements. For example, the administration withdrew the U.S. from the Trans-Pacific Partnership. In addition, the administration has

implemented and proposed various trade tariffs, which have resulted in foreign governments responding with tariffs on U.S. goods.

Changes in U.S. social, political, regulatory, and economic conditions or in laws and policies governing foreign trade, manufacturing, development and investment could adversely affect our business. For example, the imposition of tariffs or other trade barriers with other countries could affect our ability to obtain feedstocks from international sources, increase our costs and reduce the competitiveness of our products.

While there is currently a lack of certainty around the likelihood, timing, and details of any such policies and reforms, if the current U.S. administration takes action to withdraw from, or materially modify, existing international trade agreements, our business, financial condition, and results of operations could be adversely affected.

***We are subject to interruptions and increased costs as a result of our reliance on third-party transportation of crude oil and the products that we manufacture.***

We use the services of third parties to transport feedstocks to our facilities and to transport the products we manufacture to market. If we experience prolonged interruptions of supply or increases in costs to deliver our products to market, or if the ability of the pipelines, vessels, or railroads to transport feedstocks or products is disrupted because of weather events, accidents, derailment, collision, fire, explosion, governmental regulations, or third-party actions, it could have a material adverse effect on our financial position, results of operations, and liquidity.

***We may incur additional costs as a result of our use of rail cars for the transportation of crude oil and the products that we manufacture.***

We currently use rail cars for the transportation of some feedstocks to certain of our facilities and for the transportation of some of the products we manufacture to their markets. We own and lease rail cars for our operations. Rail transportation is subject to a variety of federal, state, and local regulations, as well as industry practices and customs. New laws and regulations, and changes in existing laws and regulations, are frequently enacted or proposed, and could result in increased expenditures for compliance, either directly through costs for our owned and leased rail assets, or as passed along to us by rail carriers and operators. For example, in the past several years, the Department of Transportation and various agencies within the Department of Transportation, including the Surface Transportation Board, the Pipeline and Hazardous Materials Safety Administration, and the Federal Railroad Administration, have issued orders and rules pursuant to the Federal Railroad Safety Act of 1970, the Interstate Commerce Commission Termination Act of 1995, the Rail Safety Improvement Act of 2008, Fixing America's Surface Transportation Act of 2015 and other statutory authorities concerning such matters as enhanced tank car standards, positive train control and other operational controls, safety training programs, and notification requirements. The general trend has been toward greater regulation of rail transportation over recent years. We do not believe these orders and rules will have a material impact on our financial position, results of operations, and liquidity, although further changes in law, regulations, or industry practices could require us to incur additional costs to the extent they are applicable to us.

***Competitors that produce their own supply of feedstocks, own their own retail sites, have greater financial resources, or provide alternative energy sources may have a competitive advantage.***

The refining and marketing industry is highly competitive with respect to both feedstock supply and refined petroleum product markets. We compete with many companies for available supplies of crude oil and other feedstocks and for sites for our refined petroleum products. We do not produce any of our crude oil feedstocks and, following the separation of our retail business in 2013, we do not have a company-owned retail network.



Many of our competitors, however, obtain a significant portion of their feedstocks from company-owned production and some have extensive retail sites. Such competitors are at times able to offset losses from refining operations with profits from producing or retailing operations, and may be better positioned to withstand periods of depressed refining margins or feedstock shortages.

Some of our competitors also have materially greater financial and other resources than we have. Such competitors have a greater ability to bear the economic risks inherent in all phases of our industry. In addition, we compete with other industries that provide alternative means to satisfy the energy and fuel requirements of our industrial, commercial, and individual consumers.

***Uncertainty and illiquidity in credit and capital markets can impair our ability to obtain credit and financing on acceptable terms, and can adversely affect the financial strength of our business partners.***

Our ability to obtain credit and capital depends in large measure on capital markets and liquidity factors that we do not control. Our ability to access credit and capital markets may be restricted at a time when we would like, or need, to access those markets, which could have an impact on our flexibility to react to changing economic and business conditions. In addition, the cost and availability of debt and equity financing may be adversely impacted by unstable or illiquid market conditions. Protracted uncertainty and illiquidity in these markets also could have an adverse impact on our lenders, commodity hedging counterparties, or our customers, causing them to fail to meet their obligations to us. In addition, decreased returns on pension fund assets may also materially increase our pension funding requirements.

Our access to credit and capital markets also depends on the credit ratings assigned to our debt by independent credit rating agencies. We currently maintain investment-grade ratings by Standard & Poor's Ratings Services, Moody's Investors Service, and Fitch Ratings on our senior unsecured debt. Ratings from credit agencies are not recommendations to buy, sell, or hold our securities. Each rating should be evaluated independently of any other rating. We cannot provide assurance that any of our current ratings will remain in effect for any given period of time or that a rating will not be lowered or withdrawn entirely by a rating agency if, in its judgment, circumstances so warrant. Specifically, if ratings agencies were to downgrade our long-term rating, particularly below investment grade, our borrowing costs may increase, which could adversely affect our ability to attract potential investors and our funding sources could decrease. In addition, we may not be able to obtain favorable credit terms from our suppliers or they may require us to provide collateral, letters of credit, or other forms of security, which would increase our operating costs. As a result, a downgrade below investment grade in our credit ratings could have a material adverse impact on our financial position, results of operations, and liquidity.

From time to time, our cash needs may exceed our internally generated cash flow, and our business could be materially and adversely affected if we were unable to obtain necessary funds from financing activities. From time to time, we may need to supplement our cash generated from operations with proceeds from financing activities. We have existing revolving credit facilities, committed letter of credit facilities, and an accounts receivable sales facility to provide us with available financing to meet our ongoing cash needs. In addition, we rely on the counterparties to our derivative instruments to fund their obligations under such arrangements. Uncertainty and illiquidity in financial markets may materially impact the ability of the participating financial institutions and other counterparties to fund their commitments to us under our various financing facilities or our derivative instruments, which could have a material adverse effect on our financial position, results of operations, and liquidity.

***A significant interruption in one or more of our refineries could adversely affect our business.***

Our refineries are our principal operating assets. As a result, our operations could be subject to significant interruption if one or more of our refineries were to experience a major accident or mechanical failure, be damaged by severe weather or other natural or man-made disaster, such as an act of terrorism, or otherwise be forced to shut down. If any refinery were to experience an interruption in operations, earnings from the refinery could be materially adversely affected (to the extent not recoverable through insurance) because of lost production and repair costs. Significant interruptions in our refining system could also lead to increased volatility in prices for crude oil feedstocks and refined petroleum products, and could increase instability in the financial and insurance markets, making it more difficult for us to access capital and to obtain insurance coverage that we consider adequate.

***A significant interruption related to our information technology systems could adversely affect our business.***

Our information technology systems and network infrastructure may be subject to unauthorized access or attack, which could result in (i) a loss of intellectual property, proprietary information, or employee, customer or vendor data; (ii) public disclosure of sensitive information; (iii) increased costs to prevent, respond to, or mitigate cybersecurity events, such as deploying additional personnel and protection technologies, training employees, and engaging third-party experts and consultants; (iv) systems interruption; (v) disruption of our business operations; (vi) remediation costs for repairs of system damage; (vii) reputational damage that adversely affects customer or investor confidence; and (viii) damage to our competitiveness, stock price, and long-term stockholder value. A breach could also originate from, or compromise, our customers' and vendors' or other third-party networks outside of our control. A breach may also result in legal claims or proceedings against us by our shareholders, employees, customers, vendors, and governmental authorities (U.S. and non-U.S.). There can be no assurance that our infrastructure protection technologies and disaster recovery plans can prevent a technology systems breach or systems failure, which could have a material adverse effect on our financial position or results of operations. Furthermore, the continuing and evolving threat of cyberattacks has resulted in increased regulatory focus on prevention. To the extent we face increased regulatory requirements, we may be required to expend significant additional resources to meet such requirements.

***Increasing regulatory focus on privacy and security issues and expanding laws could expose us to increased liability, subject us to lawsuits, investigations and other liabilities and restrictions on our operations that could significantly and adversely affect our business.***

Along with our own data and information in the normal course of our business, we and our partners collect and retain certain data that is subject to specific laws and regulations. The transfer and use of this data both domestically and across international borders is becoming increasingly complex. This data is subject to governmental regulation at the federal, state, international, national, provincial and local levels in many areas of our business, including data privacy and security laws such as the European Union (EU) General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA).

The GDPR applies to activities regarding personal data that may be conducted by us, directly or indirectly through vendors and subcontractors, from an establishment in the EU. As interpretation and enforcement of the GDPR evolves, it creates a range of new compliance obligations, which could cause us to incur additional costs. Failure to comply could result in significant penalties of up to a maximum of 4 percent of our global turnover that may materially adversely affect our business, reputation, results of operations, and cash flows.

The CCPA, which came into effect on January 1, 2020, gives California residents specific rights in relation to their personal information, requires that companies take certain actions, including notifications for security

incidents and may apply to activities regarding personal information that is collected by us, directly or indirectly, from California residents. As interpretation and enforcement of the CCPA evolves, it creates a range of new compliance obligations, with the possibility for significant financial penalties for noncompliance that may materially adversely affect our business, reputation, results of operations, and cash flows.

The GDPR and CCPA, as well as other data privacy laws that may become applicable to our business, pose increasingly complex compliance challenges and potentially elevate our costs. Any failure by us to comply with these laws and regulations, including as a result of a security or privacy breach, could result in significant penalties and liabilities for us. Additionally, if we acquire a company that has violated or is not in compliance with applicable data protection laws, we may incur significant liabilities and penalties as a result.

***Our business may be negatively affected by work stoppages, slowdowns or strikes by our employees, as well as new labor legislation issued by regulators.***

Workers at some of our refineries are covered by collective bargaining or similar agreements. To the extent we are in negotiations for labor agreements expiring in the future, there is no assurance an agreement will be reached without a strike, work stoppage, or other labor action. Any prolonged strike, work stoppage, or other labor action could have an adverse effect on our financial condition or results of operations. In addition, future federal, state, or foreign labor legislation could result in labor shortages and higher costs, especially during critical maintenance periods.

***We are subject to operational risks and our insurance may not be sufficient to cover all potential losses arising from operating hazards. Failure by one or more insurers to honor its coverage commitments for an insured event could materially and adversely affect our financial position, results of operations, and liquidity.***

Our operations are subject to various hazards common to the industry, including explosions, fires, toxic emissions, maritime hazards, and natural catastrophes. As protection against these hazards, we maintain insurance coverage against some, but not all, potential losses and liabilities. We may not be able to maintain or obtain insurance of the type and amount we desire at reasonable rates. As a result of market conditions, premiums and deductibles for certain of our insurance policies could increase substantially. In some instances, certain insurance could become unavailable or available only for reduced amounts of coverage. For example, coverage for hurricane damage is very limited, and coverage for terrorism risks includes very broad exclusions. If we were to incur a significant liability for which we were not fully insured, it could have a material adverse effect on our financial position, results of operations, and liquidity.

Our insurance program includes a number of insurance carriers. Significant disruptions in financial markets could lead to a deterioration in the financial condition of many financial institutions, including insurance companies. We can make no assurances that we will be able to obtain the full amount of our insurance coverage for insured events.

***Large capital projects can take many years to complete, and market conditions could deteriorate over time, negatively impacting project returns.***

We may engage in capital projects based on the forecasted project economics and level of return on the capital to be employed in the project. Large-scale projects take many years to complete, and market conditions can change from our forecast. As a result, we may be unable to fully realize our expected returns, which could negatively impact our financial condition, results of operations, and cash flows.

***Compliance with and changes in tax laws could adversely affect our performance.***

We are subject to extensive tax liabilities imposed by multiple jurisdictions, including income taxes, indirect taxes (excise/duty, sales/use, gross receipts, and value-added taxes), payroll taxes, franchise taxes, withholding taxes, and ad valorem taxes. New tax laws and regulations and changes in existing tax laws and regulations are continuously being enacted or proposed that could result in increased expenditures for tax liabilities in the future. Many of these liabilities are subject to periodic audits by the respective taxing authority. Subsequent changes to our tax liabilities as a result of these audits may subject us to interest and penalties.

On December 22, 2017, tax legislation commonly known as the Tax Cuts and Jobs Act of 2017 (Tax Reform) was enacted. Among other things, Tax Reform reduced the U.S. corporate income tax rate from 35 percent to 21 percent and implemented a new system of taxation for non-U.S. earnings, including by imposing a one-time tax on the deemed repatriation of undistributed earnings of non-U.S. subsidiaries. Tax Reform also generally (i) repealed the manufacturing deduction we previously were able to claim, (ii) resulted in a shift from a worldwide system of taxation to a territorial system of taxation, resulting in a minimum tax on the income of international subsidiaries (the GILTI tax) rather than a tax deferral on such earnings in certain circumstances, (iii) limits our annual deductions for interest expense to no more than 30 percent of our “adjusted taxable income” (plus 100 percent of our business interest income) for the year and (iv) permits us to offset only 80 percent (rather than 100 percent) of our taxable income with any net operating losses we generate after 2017. We have evaluated the effects of Tax Reform, including the one-time deemed repatriation tax and the re-measurement of our deferred tax assets and liabilities, and the provisions of Tax Reform, taken as a whole, did not have an adverse impact on our cash tax liabilities, results of operations, or financial condition. We have used reasonable interpretations and assumptions in applying Tax Reform, but it is possible that the Internal Revenue Service (IRS) could issue subsequent guidance or take positions on audit that differ from our prior interpretations and assumptions, which could adversely impact our cash tax liabilities, results of operations, and financial condition.

***Our investments in joint ventures and other entities decrease our ability to manage risk.***

We conduct some of our operations through joint ventures in which we may share control over certain economic and business interests with our joint venture partners and in some entities in which we have no ownership or control. Our joint venture partners may have economic, business or legal interests or goals that are inconsistent with our goals and interests or may be unable to meet their obligations. Failure by us, or an entity in which we have a joint-venture interest, to adequately manage the risks associated with any acquisitions or joint ventures could have a material adverse effect on our, or our joint ventures’, financial position, results of operations, and liquidity.

***We may incur losses and additional costs as a result of our forward-contract activities and derivative transactions.***

We currently use commodity derivative instruments, and we expect to continue their use in the future. If the instruments we use to hedge our exposure to various types of risk are not effective, we may incur losses. In addition, we may be required to incur additional costs in connection with future regulation of derivative instruments to the extent it is applicable to us.

***Changes in the method of determining the London Interbank Offered Rate (LIBOR), or the replacement of LIBOR with an alternative reference rate, may adversely affect interest rates.***

On July 27, 2017, the Financial Conduct Authority in the U.K. announced that it would phase out LIBOR as a benchmark by the end of 2021. It is unclear whether new methods of calculating LIBOR will be established such that it continues to exist after 2021, or whether different benchmark rates used to price indebtedness

will develop. In the future, we may need to renegotiate our financial agreements, including, but not limited to, our revolving credit facility (the Valero Revolver), or incur other indebtedness, and the phase-out of LIBOR may negatively impact the terms of such indebtedness. In addition, the overall financial market may be disrupted as a result of the phase-out or replacement of LIBOR. Disruption in the financial market could have a material adverse effect on our financial position, results of operations, and liquidity.

***Changes in the U.K.'s economic and other relationships with the EU could adversely affect us.***

In June 2016, the U.K. elected to withdraw from the EU in a national referendum (Brexit). The U.K. withdrew from the EU on January 31, 2020, consistent with the terms of the EU-U.K. Withdrawal Agreement. The terms of that agreement provide for a transition period, from January 31, 2020 to December 31, 2020, during which the trading relationship between the U.K. and the EU will remain the same while the U.K. and the EU try to negotiate an agreement regarding their future trading relationship. The ultimate effects of Brexit will depend on whether an agreement is reached, or on the specific terms of any such agreement that is reached, either of which outcomes could adversely impact the ability to trade freely between the U.K. and the EU at the end of the transition period and could negatively impact our competitive position, supplier and customer relationships, and financial performance.

**ITEM 1B. UNRESOLVED STAFF COMMENTS**

None.

**ITEM 3. LEGAL PROCEEDINGS**

**LITIGATION**

We incorporate by reference into this Item our disclosures made in Part II, Item 8 of this report included in Note 1 of Notes to Consolidated Financial Statements under the caption "Legal Contingencies."

**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.

*U.S. EPA (Fuels).* In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had an outstanding Notice of Violation (NOV) from the U.S. EPA related to violations from a 2015 Mobile Source Inspection. In the fourth quarter of 2019, we received a draft Consent Order from the U.S. EPA proposing penalties of \$3.4 million. We are working with the U.S. EPA to resolve this matter.

*Attorney General of the State of Texas (Texas AG) (Corpus Christi Asphalt Plant).* In our quarterly report on Form 10-Q for the quarter ended March 31, 2019, we reported that we had received a letter and draft Agreed Final Judgment from the Texas AG related to a contaminated water backflow incident that occurred at the Valero Corpus Christi Asphalt Plant. The draft Agreed Final Judgment assesses proposed penalties in the amount of \$1.3 million. We are working with the Texas AG to resolve this matter.

*Texas AG (Port Arthur Refinery).* In our quarterly report on Form 10-Q for the quarter ended June 30, 2019, we reported that the Texas AG had filed suit against our Port Arthur Refinery in the 419th Judicial District Court of Travis County, Texas, Cause No. D-1-GN-19-004121, for alleged violations of the Clean Air Act seeking injunctive relief and penalties. We are working with the Texas AG to resolve this matter.

*Texas AG (Houston Terminal).* In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had an outstanding Notice of Enforcement (NOE) from the Texas Commission on Environmental Quality (TCEQ), and an outstanding Violation Notice (VN) from the Harris County Pollution Control Services Department, both alleging excess emissions from Tank 003 that occurred during Hurricane Harvey. On January 27, 2020, the Texas AG filed suit related to this incident against our Houston Terminal in the 419th Judicial District Court of Travis County, Texas, Cause No. D-1-GN-20-000516 seeking injunctive relief and penalties. We are working with the Texas AG to resolve this matter.

*Bay Area Air Quality Management District (BAAQMD) and Solano County Department of Resource Management Certified Unified Program Agency (Solano County) (Benicia Refinery).* In our quarterly report on Form 10-Q for the quarter ended March 31, 2019, we reported that we had received multiple VNs issued by the BAAQMD related to an upset of the Flue Gas Scrubber (FGS) at our Benicia Refinery, and a draft Consent from Solano County related to the FGS incident proposing penalties of \$242,840. In our quarterly report on Form 10-Q for the quarter ended September 30, 2019, we reported that we had resolved the matter with Solano County. We continue to work with the BAAQMD on a final resolution of the remaining VNs.

*BAAQMD (Benicia Refinery).* In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had multiple outstanding VNs issued by the BAAQMD. These VNs are for various alleged air regulation and air permit violations at our Benicia Refinery and asphalt plant. We continue to work with the BAAQMD to resolve these VNs.

*South Coast Air Quality Management District (SCAQMD) (Wilmington Refinery).* In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had outstanding Notices of Violation (NOVs) issued by the SCAQMD. These NOVs are for alleged reporting violations and excess emissions at our Wilmington Refinery. We are working with the SCAQMD to resolve these NOVs.

*TCEQ (Port Arthur).* In our annual report on Form 10-K for the year ended December 31, 2018, we reported that we had an outstanding NOE from the TCEQ alleging unauthorized emissions associated with a November 18, 2017 release of crude oil from the 24-inch fill pipe of Tank T-285. We are working with the TCEQ to resolve this matter.

#### **ITEM 4. MINE SAFETY DISCLOSURES**

None.

## PART II

### ITEM 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock trades on the NYSE under the trading symbol “VLO.”

As of January 31, 2020, there were 5,082 holders of record of our common stock.

Dividends are considered quarterly by the board of directors, may be paid only when approved by the board, and will depend on our financial condition, results of operations, cash flows, prospects, industry conditions, capital requirements, and other factors and restrictions our board deems relevant. There can be no assurance that we will pay a dividend at the rates we have paid historically, or at all, in the future.

The following table discloses purchases of shares of our common stock made by us or on our behalf during the fourth quarter of 2019.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Not Purchased as Part of Publicly Announced Plans or Programs (a)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (b)
October 2019	332,704	\$ 88.06	98,396	234,308	\$1.6 billion
November 2019	1,565,500	\$ 99.21	107,914	1,457,586	\$1.5 billion
December 2019	393,694	\$ 94.61	6,984	386,710	\$1.5 billion
Total	2,291,898	\$ 96.80	213,294	2,078,604	\$1.5 billion

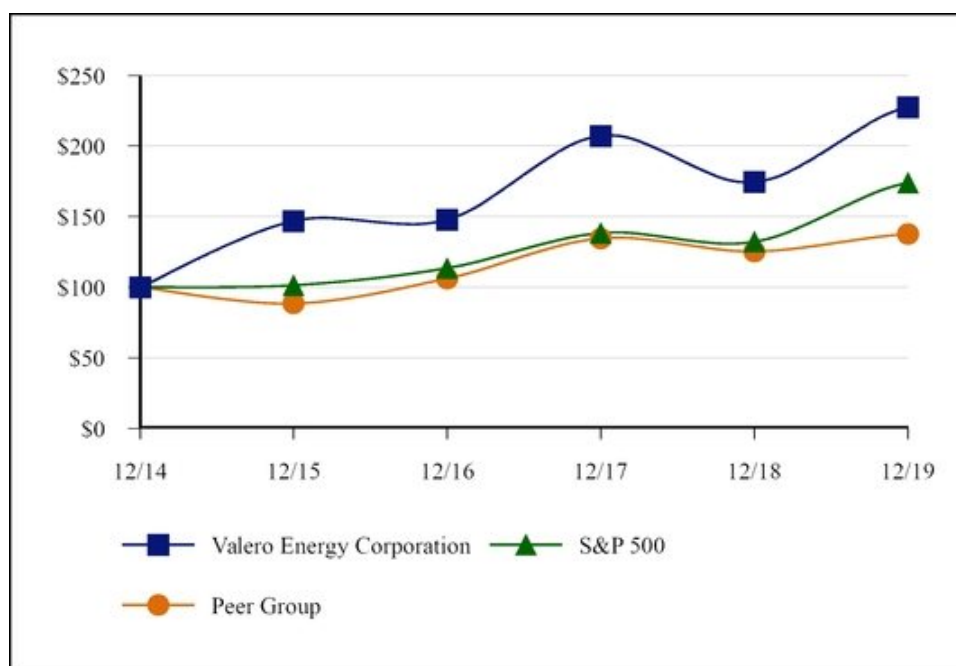
- (a) The shares reported in this column represent purchases settled in the fourth quarter of 2019 relating to (i) our purchases of shares in open-market transactions to meet our obligations under stock-based compensation plans and (ii) our purchases of shares from our employees and non-employee directors in connection with the exercise of stock options, the vesting of restricted stock, and other stock compensation transactions in accordance with the terms of our stock-based compensation plans.
- (b) On January 23, 2018, we announced that our board of directors authorized our purchase of up to \$2.5 billion of our outstanding common stock (the 2018 Program), with no expiration date. As of December 31, 2019, we had \$1.5 billion remaining available for purchase under the 2018 Program.



The following performance graph is not “soliciting material,” is not deemed filed with the SEC, and is not to be incorporated by reference into any of Valero’s filings under the Securities Act of 1933 or the Securities Exchange Act of 1934, as amended, respectively.

This performance graph and the related textual information are based on historical data and are not indicative of future performance. The following line graph compares the cumulative total return<sup>(a)</sup> on an investment in our common stock against the cumulative total return of the S&P 500 Composite Index and an index of peer companies (that we selected) for the five-year period commencing December 31, 2014 and ending December 31, 2019. Our peer group comprises the following eight companies: BP plc; CVR Energy, Inc.; Delek US Holdings, Inc.; HollyFrontier Corporation; Marathon Petroleum Corporation; PBF Energy Inc.; Phillips 66; and Royal Dutch Shell plc.

**COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN<sup>(a)</sup>**  
Among Valero Energy Corporation, the S&P 500 Index,  
and Peer Group



	As of December 31,					
	2014	2015	2016	2017	2018	2019
Valero Common Stock	\$ 100.00	\$ 146.79	\$ 147.94	\$ 207.10	\$ 174.54	\$ 227.53
S&P 500	100.00	101.38	113.51	138.29	132.23	173.86
Peer Group	100.00	88.46	106.16	134.53	125.35	137.49

(a) Assumes that an investment in Valero common stock and each index was \$100 on December 31, 2014. “Cumulative total return” is based on share price appreciation plus reinvestment of dividends from December 31, 2014 through December 31, 2019.



## ITEM 6. SELECTED FINANCIAL DATA

The selected financial data for the five-year period ended December 31, 2019 was derived from our audited financial statements. The following table should be read together with Item 7, “MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS” and with the historical financial statements and accompanying notes included in Item 8, “FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA.”

The following summaries are in millions of dollars, except for per share amounts:

	Year Ended December 31,				
	2019	2018	2017 (a)	2016 (b)	2015 (c)
Revenues	\$ 108,324	\$ 117,033	\$ 93,980	\$ 75,659	\$ 87,804
Net income	2,784	3,353	4,156	2,417	4,101
Earnings per common share – assuming dilution	5.84	7.29	9.16	4.94	7.99
Dividends per common share	3.60	3.20	2.80	2.40	1.70
Total assets	53,864	50,155	50,158	46,173	44,227
Debt and finance lease obligations, less current portion	9,178	8,871	8,750	7,886	7,208

(a) Includes the impact of Tax Reform that was enacted on December 22, 2017 and resulted in a net income tax benefit of \$1.9 billion as described in Note 15 of Notes to Consolidated Financial Statements.

(b) Includes a noncash lower of cost or market inventory valuation reserve adjustment that resulted in a net benefit to our results of operations of \$747 million.

(c) Includes a noncash lower of cost or market inventory valuation reserve adjustment that resulted in a net charge to our results of operations of \$790 million.

## **ITEM 7. MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

The following review of our results of operations and financial condition should be read in conjunction with Item 1A, “RISK FACTORS,” and Item 8, “FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA,” included in this report.

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

This report, including without limitation our disclosures below under the heading “OVERVIEW AND OUTLOOK,” includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. You can identify our forward-looking statements by the words “anticipate,” “believe,” “expect,” “plan,” “intend,” “scheduled,” “estimate,” “project,” “projection,” “predict,” “budget,” “forecast,” “goal,” “guidance,” “target,” “could,” “would,” “should,” “will,” “may,” and similar expressions.

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

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

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

- acts of terrorism aimed at either our facilities or other facilities that could impair our ability to produce or transport refined petroleum products or receive feedstocks;
- political and economic conditions in nations that produce crude oil or consume refined petroleum products;
- demand for, and supplies of, refined petroleum products (such as gasoline, diesel, jet fuel, and petrochemicals), ethanol, and renewable diesel;
- demand for, and supplies of, crude oil and other feedstocks;

- the ability of the members of the Organization of Petroleum Exporting Countries to agree on and to maintain crude oil price and production controls;
- the level of consumer demand, including seasonal fluctuations;
- refinery overcapacity or undercapacity;
- our ability to successfully integrate any acquired businesses into our operations;
- the actions taken by competitors, including both pricing and adjustments to refining capacity in response to market conditions;
- the level of competitors' imports into markets that we supply;
- accidents, unscheduled shutdowns, or other catastrophes affecting our refineries, machinery, pipelines, equipment, and information systems, or those of our suppliers or customers;
- changes in the cost or availability of transportation for feedstocks and refined petroleum products;
- the price, availability, and acceptance of alternative fuels and alternative-fuel vehicles;
- the levels of government subsidies for alternative fuels;
- the volatility in the market price of biofuel credits (primarily RINs needed to comply with the RFS) 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, refined petroleum products, ethanol, and renewable diesel;
- rulings, judgments, or settlements in litigation or other legal or regulatory matters, including unexpected environmental remediation costs, in excess of any reserves or insurance coverage;
- legislative or regulatory action, including the introduction or enactment of legislation or rulemakings by governmental authorities, including tariffs and tax and environmental regulations, such as those implemented under the California cap-and-trade system and similar programs, and the U.S. 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, the euro, the Mexican peso, and the Peruvian sol relative to the U.S. dollar;
- overall economic conditions, including the stability and liquidity of financial markets; and
- other factors generally described in the "RISK FACTORS" section included in Item 1A, "RISK FACTORS" in this report.

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.

## NON-GAAP FINANCIAL MEASURES

The discussions in “OVERVIEW AND OUTLOOK” and “RESULTS OF OPERATIONS” below include references to financial measures that are not defined under U.S. generally accepted accounting principles (GAAP). These non-GAAP financial measures include adjusted operating income (including adjusted operating income for each of our reportable segments) and refining, ethanol, and renewable diesel segment margin. We have included these non-GAAP financial measures to help facilitate the comparison of operating results between years. See the tables in note (f) beginning on page 39 for reconciliations of these non-GAAP financial measures to their most directly comparable U.S. GAAP financial measures. Also in note (f), we disclose the reasons why we believe our use of the non-GAAP financial measures provides useful information.

## OVERVIEW AND OUTLOOK

### *Overview*

For 2019, we reported net income attributable to Valero stockholders of \$2.4 billion compared to \$3.1 billion for 2018, which represents a decrease of \$700 million. This decrease is the result of a \$569 million decrease in net income and a \$131 million increase in net income attributable to noncontrolling interests. The increase in net income attributable to noncontrolling interests is primarily due to a \$279 million pre-tax increase in blender's tax credits recognized in 2019 compared to 2018, of which 50 percent is attributable to the holder of the noncontrolling interest, as described in note (a) on page 38. The decrease in net income is primarily due to a decrease of \$736 million in operating income between the periods, net of the resulting \$177 million decrease in income tax expense.

While operating income decreased by \$736 million in 2019 compared to 2018, adjusted operating income decreased by \$1.0 billion. Adjusted operating income excludes adjustments reflected in the table in note (f) on page 42.

The \$1.0 billion decrease in adjusted operating income is primarily due to the following:

- *Refining segment.* Refining segment adjusted operating income decreased by \$1.1 billion primarily due to weaker discounts on crude oils and other feedstocks and lower throughput volumes, partially offset by improved distillate margins. This is more fully described on pages 31 and 32.
- *Ethanol segment.* Ethanol segment adjusted operating income decreased by \$78 million primarily due to higher corn prices and higher operating expenses (excluding depreciation and amortization expense), partially offset by higher ethanol prices. This is more fully described on page 33.
- *Renewable diesel segment.* Renewable diesel segment adjusted operating income increased by \$259 million primarily due to an increase in renewable diesel sales volumes and an increase in the benefit from the blender's tax credit resulting from an increase in the volume of renewable diesel blended with petroleum-based diesel in 2019 compared to 2018. This is more fully described on pages 34 and 35.

## Outlook

Below are several factors that have impacted or may impact our results of operations during the first quarter of 2020:

- Distillate margins are expected to begin improving due to an anticipated increase in global demand as trade war tensions ease and markets comply with the International Maritime Organization's lower bunker fuel sulfur specifications, which were effective January 1, 2020. Gasoline margins are expected to remain near current levels.
- Discounts for medium and heavy sour crude oils are expected to remain near current levels as compliance with the new bunker fuel sulfur specifications noted above is expected to reduce demand for high sulfur fuel oils, which compete with sour crude oils as a refining feedstock.
- Ethanol margins are expected to decline as domestic inventory levels rise.
- Renewable diesel segment margins are expected to remain near current levels.
- Our refining operations in the U.K. could be adversely affected by Brexit, which formally occurred on January 31, 2020. Although the legal relationship between the U.K. and the EU has changed, their ongoing relationship will continue to follow the EU's rules during a transition period that is set to expire on December 31, 2020. During the transition period, the U.K. and the EU are expected to negotiate a new free trade agreement, which could negatively impact the operations of our Pembroke Refinery and our marketing operations in the U.K. and Ireland, as could the failure to reach any agreement. The ultimate effect of Brexit will depend on whether an agreement is reached, or on the specific terms of any agreement that is reached by the U.K. and the EU. See Item 1A "RISK FACTORS"—*Changes in the U.K.'s economic and other relationships with the EU could adversely affect us.*
- Global concern about the coronavirus outbreak could result in lower demand for and consumption of transportation fuels, which would have a negative impact on our results of operations.

## RESULTS OF OPERATIONS

The following tables, including the reconciliations of non-GAAP financial measures to their most directly comparable U.S. GAAP financial measures in note (f) beginning on page 39, highlight our results of operations, our operating performance, and market reference prices that directly impact our operations.

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

## 2019 Compared to 2018

### *Financial Highlights by Segment and Total Company (millions of dollars)*

	Year Ended December 31, 2019				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 103,746	\$ 3,606	\$ 970	\$ 2	\$ 108,324
Intersegment revenues	18	231	247	(496)	—
Total revenues	103,764	3,837	1,217	(494)	108,324
Cost of sales:					
Cost of materials and other (a)	93,371	3,239	360	(494)	96,476
Operating expenses (excluding depreciation and amortization expense reflected below)	4,289	504	75	—	4,868
Depreciation and amortization expense	2,062	90	50	—	2,202
Total cost of sales	99,722	3,833	485	(494)	103,546
Other operating expenses (b)	20	1	—	—	21
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	868	868
Depreciation and amortization expense	—	—	—	53	53
Operating income by segment	<u>\$ 4,022</u>	<u>\$ 3</u>	<u>\$ 732</u>	<u>\$ (921)</u>	<u>3,836</u>
Other income, net (d)					104
Interest and debt expense, net of capitalized interest					(454)
Income before income tax expense					3,486
Income tax expense					702
Net income					2,784
Less: Net income attributable to noncontrolling interests (a)					362
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 2,422</u>

See note references on pages 38 through 42.

**Financial Highlights by Segment and Total Company (continued)**  
(millions of dollars)

	Year Ended December 31, 2018				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 113,093	\$ 3,428	\$ 508	\$ 4	\$ 117,033
Intersegment revenues	25	210	170	(405)	—
Total revenues	113,118	3,638	678	(401)	117,033
Cost of sales:					
Cost of materials and other (a)	101,866	3,008	262	(404)	104,732
Operating expenses (excluding depreciation and amortization expense reflected below)	4,154	470	66	—	4,690
Depreciation and amortization expense	1,910	78	29	—	2,017
Total cost of sales	107,930	3,556	357	(404)	111,439
Other operating expenses (b)	45	—	—	—	45
General and administrative expenses (excluding depreciation and amortization expense reflected below) (c)	—	—	—	925	925
Depreciation and amortization expense	—	—	—	52	52
Operating income by segment	<u>\$ 5,143</u>	<u>\$ 82</u>	<u>\$ 321</u>	<u>\$ (974)</u>	<u>4,572</u>
Other income, net (d)					130
Interest and debt expense, net of capitalized interest					(470)
Income before income tax expense					4,232
Income tax expense (e)					879
Net income					3,353
Less: Net income attributable to noncontrolling interests (a)					231
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 3,122</u>

See note references on pages 38 through 42.

# *Average Market Reference Prices and Differentials*

	Year Ended December 31,		
	2019	2018	Change
<b>Refining</b>			
<b>Feedstocks (dollars per barrel)</b>			
Brent crude oil	\$ 64.18	\$ 71.62	\$ (7.44)
Brent less West Texas Intermediate (WTI) crude oil	7.15	6.71	0.44
Brent less Alaska North Slope (ANS) crude oil	(0.86)	0.31	(1.17)
Brent less LLS crude oil	1.47	1.72	(0.25)
Brent less Argus Sour Crude Index (ASCI) crude oil	3.56	5.20	(1.64)
Brent less Maya crude oil	6.57	9.22	(2.65)
LLS crude oil	62.71	69.90	(7.19)
LLS less ASCI crude oil	2.09	3.48	(1.39)
LLS less Maya crude oil	5.10	7.50	(2.40)
WTI crude oil	57.03	64.91	(7.88)
<b>Natural gas (dollars per million British Thermal Units (MMBtu))</b>			
	2.47	3.23	(0.76)
<b>Products (dollars per barrel)</b>			
U.S. Gulf Coast:			
Conventional Blendstock of Oxygenate Blending (CBOB) gasoline less Brent	4.37	4.81	(0.44)
Ultra-low-sulfur (ULS) diesel less Brent	14.90	14.02	0.88
Propylene less Brent	(22.31)	(2.86)	(19.45)
CBOB gasoline less LLS	5.84	6.53	(0.69)
ULS diesel less LLS	16.37	15.74	0.63
Propylene less LLS	(20.84)	(1.14)	(19.70)
U.S. Mid-Continent:			
CBOB gasoline less WTI	13.62	13.70	(0.08)
ULS diesel less WTI	22.77	22.82	(0.05)
North Atlantic:			
CBOB gasoline less Brent	7.20	7.59	(0.39)
ULS diesel less Brent	17.22	16.29	0.93
U.S. West Coast:			
CARBOB 87 gasoline less ANS	16.28	13.05	3.23
CARB diesel less ANS	19.30	18.13	1.17
CARBOB 87 gasoline less WTI	24.29	19.45	4.84
CARB diesel less WTI	27.31	24.53	2.78



**Average Market Reference Prices and Differentials, (continued)**

	Year Ended December 31,		
	2019	2018	Change
<b>Ethanol</b>			
Chicago Board of Trade (CBOT) corn (dollars per bushel)	\$ 3.84	\$ 3.68	\$ 0.16
New York Harbor (NYH) ethanol (dollars per gallon)	1.53	1.48	0.05
<b>Renewable diesel</b>			
New York Mercantile Exchange ULS diesel (dollars per gallon)	1.94	2.09	(0.15)
Biodiesel RIN (dollars per RIN)	0.48	0.53	(0.05)
California Low-Carbon Fuel Standard (dollars per metric ton)	196.82	168.24	28.58
CBOT soybean oil (dollars per pound)	0.29	0.30	(0.01)

**Total Company, Corporate, and Other**

The following table includes selected financial data for the total company, corporate, and other for 2019 and 2018. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 27 and 28, unless otherwise noted.

	Year Ended December 31,		
	2019	2018	Change
Revenues	\$ 108,324	\$ 117,033	\$ (8,709)
Cost of sales	103,546	111,439	(7,893)
General and administrative expenses (excluding depreciation and amortization expense)	868	925	(57)
Operating income	3,836	4,572	(736)
Adjusted operating income (see note (f) on page 42)	3,699	4,713	(1,014)
Other income, net	104	130	(26)
Income tax expense	702	879	(177)
Net income attributable to noncontrolling interests	362	231	131

Revenues decreased by \$8.7 billion in 2019 compared to 2018 primarily due to decreases in refined petroleum product prices associated with sales made by our refining segment. This decline in revenues was partially offset by lower cost of sales of \$7.9 billion primarily due to decreases in crude oil and other feedstock costs and a decrease of \$57 million in general and administrative expenses (excluding depreciation and amortization expense), resulting in a decrease in operating income of \$736 million in 2019 compared to 2018.

General and administrative expenses (excluding depreciation and amortization expense) decreased by \$57 million in 2019 compared to 2018. This decrease was primarily due to environmental reserve adjustments of \$108 million associated with certain non-operating sites in 2018, partially offset by increases in legal and other environmental reserves of \$24 million and \$12 million, respectively, as well as higher taxes other than income taxes of \$8 million and expenses associated with the Merger Transaction with VLP of \$7 million.

Adjusted operating income was \$3.7 billion in 2019 compared to \$4.7 billion in 2018. Details regarding the \$1.0 billion decrease in adjusted operating income between the years are discussed by segment below.

“Other income, net” decreased by \$26 million in 2019 compared to 2018. This decrease was primarily due to lower interest income of \$30 million and higher foreign currency transaction losses of \$14 million, partially offset by the favorable effect of a \$16 million lower charge for the early redemption of debt between the periods. As described in note (d) on page 39, we redeemed debt in both 2019 and 2018 and incurred early redemption charges of \$22 million and \$38 million, respectively.

Income tax expense decreased by \$177 million in 2019 compared to 2018 primarily as a result of lower income before income tax expense. Our effective tax rate was 20 percent for 2019 compared to 21 percent for 2018.

Net income attributable to noncontrolling interests increased by \$131 million in 2019 compared to 2018 primarily due to a \$279 million increase in blender’s tax credits recognized in 2019 compared to 2018, of which 50 percent is attributable to the holder of the noncontrolling interest, as described in note (a) on page 38.

### Refining Segment Results

The following table includes selected financial and operating data of our refining segment for 2019 and 2018. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 27 and 28, respectively, unless otherwise noted.

	Year Ended December 31,		
	2019	2018	Change
Revenues	\$ 103,764	\$ 113,118	\$ (9,354)
Cost of sales	99,722	107,930	(8,208)
Operating income	4,022	5,143	(1,121)
Adjusted operating income (see note (f) on page 41)	4,040	5,180	(1,140)
Margin (see note (f) on page 40)	10,391	11,244	(853)
Operating expenses (excluding depreciation and amortization expense reflected below)	4,289	4,154	135
Depreciation and amortization expense	2,062	1,910	152
Throughput volumes (thousand BPD) (see note (g) on page 42)	2,952	2,986	(34)

Refining segment revenues decreased by \$9.3 billion in 2019 compared to 2018 primarily due to decreases in refined petroleum product prices. This decline in refining segment revenues was partially offset by lower cost of sales of \$8.2 billion primarily due to decreases in crude oil and other feedstock costs, resulting in a decrease in refining segment operating income of \$1.1 billion in 2019 compared to 2018.

Refining segment adjusted operating income also decreased by \$1.1 billion in 2019 compared to 2018. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

- Refining segment margin is primarily affected by refined petroleum product prices and the cost of crude oil and other feedstocks. The market prices for refined petroleum products generally track the price of benchmark crude oils, such as Brent, WTI, and ANS. An increase in the differential between the market price of the refined petroleum products that we sell and the cost of the reference benchmark crude oil has a favorable impact on our refining segment margin, while a decline in this differential has a negative impact on our refining segment margin. Additionally, our refining segment margin is affected by our ability to purchase and process crude oils and other feedstocks that are priced at a discount to Brent and other benchmark crude oils. While we benefit when we process these types of crude oils and other feedstocks, that benefit will vary as the discount widens or narrows. Improvement in these discounts has a favorable impact on our refining segment margin as it lowers our cost of materials; whereas lower discounts result in higher cost of materials, which has a negative impact on our refining segment margin. The table on page 29 reflects market reference prices and differentials that we believe had a material impact on the change in our refining segment margin in 2019 compared to 2018. Refining segment margin decreased by \$853 million in 2019 compared to 2018 primarily due to the following:
  - Lower discounts on crude oils had an unfavorable impact to our refining segment margin of approximately \$628 million.
  - Lower discounts on feedstocks other than crude oils, such as natural gas and residuals, had an unfavorable impact to our refining segment margin of approximately \$360 million.
  - A decrease in throughput volumes of 34,000 BPD had an unfavorable impact to our refining segment margin of approximately \$128 million.
  - A decrease in the cost of biofuel credits (primarily RINs in the U.S.) had a favorable impact on our refining segment margin of \$218 million. See Note 20 of Notes to Consolidated Financial Statements for additional information on our government and regulatory compliance programs.
  - An increase in distillate margins throughout most of our regions had a favorable impact to our refining segment margin of approximately \$202 million.
- Refining segment operating expenses (excluding depreciation and amortization expense) increased by \$135 million primarily due to higher maintenance costs of \$86 million, along with the effect of favorable property tax settlements of \$20 million and sales and use tax refunds of \$17 million received in 2018 that did not recur in 2019.
- Refining segment depreciation and amortization expense associated with our cost of sales increased by \$152 million primarily due to higher refinery turnaround and catalyst amortization expense of \$82 million and an increase in depreciation expense of \$79 million associated with capital projects that were completed and finance leases that commenced in the latter part of 2018 and early 2019, partially offset by the write-off of assets that were idled or demolished in 2018 of \$15 million.

## Ethanol Segment Results

The following table includes selected financial and operating data of our ethanol segment for 2019 and 2018. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 27 and 28, respectively, unless otherwise noted.

	Year Ended December 31,		
	2019	2018	Change
Revenues	\$ 3,837	\$ 3,638	\$ 199
Cost of sales	3,833	3,556	277
Operating income	3	82	(79)
Adjusted operating income (see note (f) on page 41)	4	82	(78)
Margin (see note (f) on page 40)	598	630	(32)
Operating expenses (excluding depreciation and amortization expense reflected below)	504	470	34
Depreciation and amortization expense	90	78	12
Production volumes (thousand gallons per day) (see note (g) on page 42)	4,269	4,109	160

Ethanol segment revenues increased by \$199 million in 2019 compared to 2018 primarily due to an increase in ethanol prices. This improvement in ethanol segment revenue was outweighed by higher cost of sales of \$277 million, resulting in a decrease in ethanol segment operating income of \$79 million in 2019 compared to 2018.

Ethanol segment adjusted operating income decreased by \$78 million. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

- Ethanol segment margin is primarily affected by ethanol and corn related co-product prices and the cost of corn. The table on page 30 reflects market reference prices that we believe had a material impact on the change in our ethanol segment margin in 2019 compared to 2018. Ethanol segment margin decreased by \$32 million in 2019 compared to 2018 primarily due to the following:
  - Higher corn prices had an unfavorable impact to our ethanol segment margin of approximately \$166 million.
  - Higher ethanol prices had a favorable impact to our ethanol segment margin of approximately \$123 million.
- Ethanol segment operating expenses (excluding depreciation and amortization expense) increased by \$34 million primarily due to costs to operate the three plants acquired from Green Plains, Inc. (Green Plains) in November 2018 of \$79 million, partially offset by lower energy costs of \$29 million and lower chemicals and catalyst costs of \$12 million incurred by our other ethanol plants.
- Ethanol segment depreciation and amortization expense associated with our cost of sales increased by \$12 million primarily due to depreciation expense associated with the three plants acquired from Green Plains in November 2018.

## Renewable Diesel Segment Results

The following table includes selected financial and operating data of our renewable diesel segment for 2019 and 2018. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 27 and 28, respectively, unless otherwise noted.

	Year Ended December 31,		
	2019	2018	Change
Revenues	\$ 1,217	\$ 678	\$ 539
Cost of sales	485	357	128
Operating income	732	321	411
Adjusted operating income (see note (f) on page 42)	576	317	259
Margin (see note (f) on page 41)	701	412	289
Operating expenses (excluding depreciation and amortization expense reflected below)	75	66	9
Depreciation and amortization expense	50	29	21
Sales volumes (thousand gallons per day) (see note (g) on page 42)	760	431	329

Renewable diesel segment revenues increased by \$539 million in 2019 compared to 2018 primarily due to an increase in renewable diesel sales volumes. This improvement in renewable diesel segment revenues was partially offset by higher cost of sales of \$128 million, resulting in an increase in renewable diesel segment operating income of \$411 million.

Renewable diesel segment adjusted operating income increased by \$259 million in 2019 compared to 2018. The components of this increase, along with the reasons for the changes in these components, are outlined below.

- Renewable diesel segment margin increased by \$289 million in 2019 compared to 2018 primarily due to the following:
  - An increase in sales volumes of 329,000 gallons per day, which is primarily due to the additional production capacity resulting from the expansion of the DGD Plant completed in the third quarter of 2018, had a favorable impact to our renewable diesel segment margin of \$162 million.
  - An increase in the benefit for the blender's tax credit attributable to volumes blended during 2019 compared to 2018 had a favorable impact to our renewable diesel segment margin of \$119 million. As more fully described in note (a) on page 38, blender's tax credits of \$275 million and \$156 million were attributable to volumes blended during 2019 and 2018, respectively.
- Renewable diesel segment operating expenses (excluding depreciation and amortization expense) increased by \$9 million, which is primarily attributable to increased costs resulting from the expansion of the DGD Plant completed in the third quarter of 2018.

- Renewable diesel segment depreciation and amortization expense associated with our cost of sales increased by \$21 million primarily due to higher turnaround and catalyst amortization expense of \$13 million and depreciation expense associated with the expansion of the DGD Plant completed in the third quarter of 2018 of \$5 million.

### **2018 Compared to 2017**

#### ***Financial Highlights by Segment and Total Company (millions of dollars)***

	Year Ended December 31, 2018				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 113,093	\$ 3,428	\$ 508	\$ 4	\$ 117,033
Intersegment revenues	25	210	170	(405)	—
Total revenues	113,118	3,638	678	(401)	117,033
Cost of sales:					
Cost of materials and other (a)	101,866	3,008	262	(404)	104,732
Operating expenses (excluding depreciation and amortization expense reflected below)	4,154	470	66	—	4,690
Depreciation and amortization expense	1,910	78	29	—	2,017
Total cost of sales	107,930	3,556	357	(404)	111,439
Other operating expenses (b)	45	—	—	—	45
General and administrative expenses (excluding depreciation and amortization expense reflected below) (c)	—	—	—	925	925
Depreciation and amortization expense	—	—	—	52	52
Operating income by segment	<u>\$ 5,143</u>	<u>\$ 82</u>	<u>\$ 321</u>	<u>\$ (974)</u>	<u>4,572</u>
Other income, net (d)					130
Interest and debt expense, net of capitalized interest					(470)
Income before income tax expense					4,232
Income tax expense (e)					879
Net income					3,353
Less: Net income attributable to noncontrolling interests (a)					231
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 3,122</u>

See note references on pages 38 through 42.

**Financial Highlights by Segment and Total Company (continued)**  
(millions of dollars)

	Year Ended December 31, 2017				
	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
Revenues:					
Revenues from external customers	\$ 90,258	\$ 3,324	\$ 393	\$ 5	\$ 93,980
Intersegment revenues	8	176	241	(425)	—
Total revenues	90,266	3,500	634	(420)	93,980
Cost of sales:					
Cost of materials and other	80,160	2,804	498	(425)	83,037
Operating expenses (excluding depreciation and amortization expense reflected below)	4,014	443	47	—	4,504
Depreciation and amortization expense	1,824	81	29	—	1,934
Total cost of sales	85,998	3,328	574	(425)	89,475
Other operating expenses (b)	61	—	—	—	61
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	829	829
Depreciation and amortization expense	—	—	—	52	52
Operating income by segment	<u>\$ 4,207</u>	<u>\$ 172</u>	<u>\$ 60</u>	<u>\$ (876)</u>	<u>3,563</u>
Other income, net					112
Interest and debt expense, net of capitalized interest					(468)
Income before income tax expense					3,207
Income tax benefit (e)					(949)
Net income					4,156
Less: Net income attributable to noncontrolling interests					91
Net income attributable to Valero Energy Corporation stockholders					<u>\$ 4,065</u>

See note references on pages 38 through 42.

# *Average Market Reference Prices and Differentials*

	Year Ended December 31,		
	2018	2017	Change
<b>Refining</b>			
<b>Feedstocks (dollars per barrel)</b>			
Brent crude oil	\$ 71.62	\$ 54.82	\$ 16.80
Brent less WTI crude oil	6.71	3.92	2.79
Brent less ANS crude oil	0.31	0.26	0.05
Brent less LLS crude oil	1.72	0.69	1.03
Brent less ASCI crude oil	5.20	4.18	1.02
Brent less Maya crude oil	9.22	7.74	1.48
LLS crude oil	69.90	54.13	15.77
LLS less ASCI crude oil	3.48	3.49	(0.01)
LLS less Maya crude oil	7.50	7.05	0.45
WTI crude oil	64.91	50.90	14.01
<b>Natural gas (dollars per MMBtu)</b>			
	3.23	2.98	0.25
<b>Products (dollars per barrel)</b>			
U.S. Gulf Coast:			
CBOB gasoline less Brent	4.81	10.50	(5.69)
ULS diesel less Brent	14.02	13.26	0.76
Propylene less Brent	(2.86)	0.48	(3.34)
CBOB gasoline less LLS	6.53	11.19	(4.66)
ULS diesel less LLS	15.74	13.95	1.79
Propylene less LLS	(1.14)	1.17	(2.31)
U.S. Mid-Continent:			
CBOB gasoline less WTI	13.70	15.65	(1.95)
ULS diesel less WTI	22.82	18.50	4.32
North Atlantic:			
CBOB gasoline less Brent	7.59	12.57	(4.98)
ULS diesel less Brent	16.29	14.75	1.54
U.S. West Coast:			
CARBOB 87 gasoline less ANS	13.05	18.12	(5.07)
CARB diesel less ANS	18.13	17.11	1.02
CARBOB 87 gasoline less WTI	19.45	21.78	(2.33)
CARB diesel less WTI	24.53	20.77	3.76



**Average Market Reference Prices and Differentials, (continued)**

	Year Ended December 31,		
	2018	2017	Change
<b>Ethanol</b>			
CBOT corn (dollars per bushel)	\$ 3.68	\$ 3.59	\$ 0.09
NYH ethanol (dollars per gallon)	1.48	1.56	(0.08)
<b>Renewable diesel</b>			
New York Mercantile Exchange ULS diesel (dollars per gallon)	2.09	1.66	0.43
Biodiesel RIN (dollars per RIN)	0.53	1.01	(0.48)
California Low-Carbon Fuel Standard (dollars per metric ton)	168.24	89.26	78.98
CBOT soybean oil (dollars per pound)	0.30	0.33	(0.03)

The following notes relate to references on pages 25 through 36 and pages 43 through 46.

- (a) Cost of materials and other for the years ended December 31, 2019 and 2018 includes a benefit of \$449 million and \$170 million, respectively, for the blender's tax credit. The benefit recognized in 2019 is attributable to volumes blended during 2019 and 2018 and was recognized in December 2019 because the U.S. legislation authorizing the credit was passed and signed into law in that month. The benefit recognized in 2018 is attributable to volumes blended during 2017 and was recognized in February 2018 because the U.S. legislation authorizing the credit was passed and signed into law in that month.

The \$449 million and \$170 million pre-tax benefits are attributable to volumes blended during the three years and are reflected in our reportable segments as follows (in millions):

	Refining	Renewable Diesel	Total
<b>Periods to which blender's tax credit is attributable</b>			
2019 blender's tax credit	\$ 16	\$ 275	\$ 291
2018 blender's tax credit	2	156	158
Total recognized in 2019	\$ 18	\$ 431	\$ 449
2017 blender's tax credit	\$ 10	\$ 160	\$ 170
Total recognized in 2018	\$ 10	\$ 160	\$ 170

Adjustments to reflect the blender's tax credits in the period during which the volumes were blended are as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
<b>Refining segment</b>			
Total blender's tax credit recognized in period presented	\$ 18	\$ 10	\$ —
Less: Amount properly reflected in the period associated with volumes blended	16	2	10
Adjustment to reflect blender's tax credit in proper period for the refining segment (see note (f))	2	8	(10)
<b>Renewable diesel segment</b>			
Total blender's tax credit recognized in period presented	431	160	—
Less: Amount properly reflected in the period associated with volumes blended	275	156	160
Adjustment to reflect blender's tax credit in proper period for the renewable diesel segment (see note (f))	156	4	(160)
Total adjustment to reflect blender's tax credit in proper period (see note (f))	\$ 158	\$ 12	\$ (170)

Of the \$449 million pre-tax benefit recognized in 2019, \$215 million is attributable to noncontrolling interest and \$234 million is attributable to Valero stockholders. Of the \$170 million pre-tax benefit recognized in 2018, \$80 million is attributable to noncontrolling interest and \$90 million is attributable to Valero stockholders.

- (b) Other operating expenses reflects expenses that are not associated with our cost of sales and primarily includes costs to repair, remediate, and restore our facilities to normal operations following a non-operating event, such as a natural disaster or a major unplanned outage.
- (c) General and administrative expenses (excluding depreciation and amortization expense) for the year ended December 31, 2018 includes a charge of \$108 million for environmental reserve adjustments associated with certain non-operating sites.
- (d) "Other income, net" for the years ended December 31, 2019 and 2018 includes a \$22 million charge from the early redemption of \$850 million of our 6.125 percent senior notes due February 1, 2020 and a \$38 million charge from the early redemption of \$750 million of our 9.375 percent senior notes due March 15, 2019, respectively.
- (e) On December 22, 2017, Tax Reform was enacted, and we recognized an income tax benefit of \$1.9 billion in December 2017 that represented our initial estimate of the impact of Tax Reform. We finalized our estimates during the year ended December 31, 2018 and recorded an income tax benefit of \$12 million during the period.
- (f) We use certain financial measures (as noted below) that are not defined under U.S. GAAP and are considered to be non-GAAP financial measures.

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

Non-GAAP financial measures are as follows:

- **Refining margin** is defined as refining operating income adjusted to reflect the blender's tax credit in the proper period, and excluding operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, and other operating expenses, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of refining operating income to refining margin</b>			
Refining operating income	\$ 4,022	\$ 5,143	\$ 4,207
Exclude:			
Blender's tax credit (see note (a))	2	8	(10)
Operating expenses (excluding depreciation and amortization expense)	(4,289)	(4,154)	(4,014)
Depreciation and amortization expense	(2,062)	(1,910)	(1,824)
Other operating expenses (see note (b))	(20)	(45)	(61)
Refining margin	<u>\$ 10,391</u>	<u>\$ 11,244</u>	<u>\$ 10,116</u>

- **Ethanol margin** is defined as ethanol operating income excluding operating expenses (excluding depreciation and amortization expense), depreciation and amortization expense, and other operating expenses, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of ethanol operating income to ethanol margin</b>			
Ethanol operating income	\$ 3	\$ 82	\$ 172
Exclude:			
Operating expenses (excluding depreciation and amortization expense)	(504)	(470)	(443)
Depreciation and amortization expense	(90)	(78)	(81)
Other operating expenses (see note (b))	(1)	—	—
Ethanol margin	<u>\$ 598</u>	<u>\$ 630</u>	<u>\$ 696</u>

- **Renewable diesel margin** is defined as renewable diesel operating income adjusted to reflect the blender's tax credit in the proper period, and excluding operating expenses (excluding depreciation and amortization expense) and depreciation and amortization expense, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of renewable diesel operating income to renewable diesel margin</b>			
Renewable diesel operating income	\$ 732	\$ 321	\$ 60
Exclude:			
Blender's tax credit (see note (a))	156	4	(160)
Operating expenses (excluding depreciation and amortization expense)	(75)	(66)	(47)
Depreciation and amortization expense	(50)	(29)	(29)
Renewable diesel margin	<u>\$ 701</u>	<u>\$ 412</u>	<u>\$ 296</u>

- **Adjusted refining operating income** is defined as refining segment operating income adjusted to reflect the blender's tax credit in the proper period and excluding other operating expenses, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of refining operating income to adjusted refining operating income</b>			
Refining operating income	\$ 4,022	\$ 5,143	\$ 4,207
Exclude:			
Blender's tax credit (see note (a))	2	8	(10)
Other operating expenses (see note (b))	(20)	(45)	(61)
Adjusted refining operating income	<u>\$ 4,040</u>	<u>\$ 5,180</u>	<u>\$ 4,278</u>

- **Adjusted ethanol operating income** is defined as ethanol segment operating income excluding other operating expenses as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of ethanol operating income to adjusted ethanol operating income</b>			
Ethanol operating income	\$ 3	\$ 82	\$ 172
Exclude:			
Other operating expenses (see note (b))	(1)	—	—
Adjusted ethanol operating income	<u>\$ 4</u>	<u>\$ 82</u>	<u>\$ 172</u>

- **Adjusted renewable diesel operating income** is defined as renewable diesel segment operating income adjusted to reflect the blender's tax credit in the proper period, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of renewable diesel operating income to adjusted renewable diesel operating income</b>			
Renewable diesel operating income	\$ 732	\$ 321	\$ 60
Exclude:			
Blender's tax credit (see note (a))	156	4	(160)
Adjusted renewable diesel operating income	<u>\$ 576</u>	<u>\$ 317</u>	<u>\$ 220</u>

- **Adjusted operating income** is defined as total company operating income adjusted to reflect the blender's tax credit in the proper period, and excluding other operating expenses and environmental reserve adjustments associated with certain non-operating sites, as reflected in the table below.

	Year Ended December 31,		
	2019	2018	2017
<b>Reconciliation of total company operating income to adjusted operating income</b>			
Total company operating income	\$ 3,836	\$ 4,572	\$ 3,563
Exclude:			
Blender's tax credit (see note (a))	158	12	(170)
Other operating expenses (see note (b))	(21)	(45)	(61)
Environmental reserve adjustments (see note (c))	—	(108)	—
Adjusted operating income	<u>\$ 3,699</u>	<u>\$ 4,713</u>	<u>\$ 3,794</u>

- (g) We use throughput volumes, production volumes, and sales volumes for the refining segment, ethanol segment, and renewable diesel segment, respectively, due to their general use by others who operate facilities similar to those included in our segments.

### Total Company, Corporate, and Other

The following table includes selected financial data for the total company, corporate, and other for 2018 and 2017. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 35 and 36, unless otherwise noted.

	Year Ended December 31,		
	2018	2017	Change
Revenues	\$ 117,033	\$ 93,980	\$ 23,053
Cost of sales	111,439	89,475	21,964
General and administrative expenses (excluding depreciation and amortization expense)	925	829	96
Operating income	4,572	3,563	1,009
Adjusted operating income (see note (f) on page 42)	4,713	3,794	919
Other income, net	130	112	18
Income tax expense (benefit)	879	(949)	1,828
Net income attributable to noncontrolling interests	231	91	140

Revenues increased by \$23.1 billion in 2018 compared to 2017 primarily due to increases in refined petroleum product prices associated with sales made by our refining segment. This improvement in revenues was partially offset by higher cost of sales of \$22.0 billion primarily due to increases in crude oil and other feedstock costs, and an increase of \$96 million in general and administrative expenses (excluding depreciation and amortization expense), resulting in an increase in operating income of \$1.0 billion in 2018 compared to 2017.

General and administrative expenses (excluding depreciation and amortization expense) increased by \$96 million in 2018 compared to 2017. This increase was primarily due to environmental reserve adjustments of \$108 million associated with certain non-operating sites in 2018, partially offset by expenses incurred in 2017 associated with the termination of the acquisition of certain assets from Plains All American Pipeline, L.P. of \$16 million.

Adjusted operating income was \$4.7 billion in 2018 compared to \$3.8 billion in 2017. Details regarding the \$919 million increase in adjusted operating income between the years are discussed by segment below.

“Other income, net” increased by \$18 million in 2018 compared to 2017. This increase was primarily due to higher equity in earnings associated with our Diamond pipeline joint venture of \$39 million and higher interest income of \$29 million, partially offset by a \$38 million charge for the early redemption of debt as described in note (d) on page 39.

Income tax expense increased by \$1.8 billion in 2018 compared to 2017 primarily due to the effect from a \$1.9 billion income tax benefit in 2017 resulting from Tax Reform, as described in note (e) on page 39. Excluding the effect of Tax Reform from 2017, the effective tax rate for 2017 was 28 percent compared to 21 percent for 2018. The decrease in our effective tax rate is primarily due to the reduction in the U.S. statutory income tax rate from 35 percent to 21 percent effective January 1, 2018 as a result of Tax Reform.

Net income attributable to noncontrolling interests increased by \$140 million in 2018 compared to 2017 primarily due to higher earnings associated with DGD, which includes a benefit for the blender’s tax credit

of which \$80 million is attributable to the holder of the noncontrolling interest, as described in note (a) on page 38.

### Refining Segment Results

The following table includes selected financial and operating data of our refining segment for 2018 and 2017. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 35 and 36, respectively, unless otherwise noted.

	Year Ended December 31,		
	2018	2017	Change
Revenues	\$ 113,118	\$ 90,266	\$ 22,852
Cost of sales	107,930	85,998	21,932
Operating income	5,143	4,207	936
Adjusted operating income (see note (f) on page 41)	5,180	4,278	902
Margin (see note (f) on page 40)	11,244	10,116	1,128
Operating expenses (excluding depreciation and amortization expense reflected below)	4,154	4,014	140
Depreciation and amortization expense	1,910	1,824	86
Throughput volumes (thousand BPD) (see note (g) on page 42)	2,986	2,940	46

Refining segment revenues increased by \$22.9 billion in 2018 compared to 2017 primarily due to increases in refined petroleum product prices. This improvement in refining segment revenues was partially offset by higher cost of sales of \$21.9 billion primarily due to increases in crude oil and other feedstock costs, resulting in an increase in refining segment operating income of \$936 million in 2018 compared to 2017.

Refining segment adjusted operating income increased by \$902 million in 2018 compared to 2017. The components of this increase, along with the reasons for the changes in these components, are outlined below.

- Refining segment margin is primarily affected by refined petroleum product prices and the cost of crude oil and other feedstocks. The market prices for refined petroleum products generally track the price of benchmark crude oils, such as Brent, WTI, and ANS. An increase in the differential between the market price of the refined petroleum products that we sell and the cost of the reference benchmark crude oil has a favorable impact on our refining segment margin, while a decline in this differential has a negative impact on our refining segment margin. Additionally, our refining segment margin is affected by our ability to purchase and process crude oils and other feedstocks that are priced at a discount to Brent and other benchmark crude oils. While we benefit when we process these types of crude oils and other feedstocks, that benefit will vary as the discount widens or narrows. Improvement in these discounts has a favorable impact on our refining segment margin as it lowers our cost of materials; whereas lower discounts result in higher cost of materials, which has a negative impact on our refining segment margin. The table on page 37 reflects market reference prices and differentials that we believe had a material impact on the change in our refining segment margin in 2018 compared to 2017. Refining segment margin increased by \$1.1 billion in 2018 compared to 2017, primarily due to the following:
  - An increase in distillate margins throughout all of our regions had a favorable impact to our refining segment margin of approximately \$1.3 billion.

- Higher discounts on crude oils had a favorable impact to our refining segment margin of approximately \$561 million.
- A decrease in the cost of biofuel credits (primarily RINs in the U.S.) had a favorable impact to our refining segment margin of \$406 million. See Note 20 of Notes to Consolidated Financial Statements for additional information on our government and regulatory compliance programs.
- An increase in throughput volumes of 46,000 BPD had a favorable impact to our refining segment margin of approximately \$153 million.
- A decrease in gasoline margins throughout all of our regions had an unfavorable impact to our refining segment margin of approximately \$1.3 billion.
- Refining segment operating expenses (excluding depreciation and amortization expense) increased by \$140 million primarily due to higher employee-related expenses of \$33 million, an increase in energy costs of \$28 million, the effect of a favorable insurance settlement of \$20 million in 2017 for our McKee Refinery, higher maintenance expense of \$17 million, and higher chemicals and catalyst costs of \$15 million.
- Refining segment depreciation and amortization expense associated with our cost of sales increased by \$86 million primarily due to an increase in depreciation expense of \$44 million associated with capital projects that were completed in the latter part of 2017 and early 2018 and higher refinery turnaround and catalyst amortization expense of \$35 million, along with the write-off of assets that were idled or demolished in 2018 of \$15 million.

### Ethanol Segment Results

The following table includes selected financial and operating data of our ethanol segment for 2018 and 2017. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 35 and 36, respectively, unless otherwise noted.

	Year Ended December 31,		
	2018	2017	Change
Revenues	\$ 3,638	\$ 3,500	\$ 138
Cost of sales	3,556	3,328	228
Operating income	82	172	(90)
Margin (see note (f) on page 40)	630	696	(66)
Operating expenses (excluding depreciation and amortization expense reflected below)	470	443	27
Depreciation and amortization expense	78	81	(3)
Production volumes (thousand gallons per day) (see note (g) on page 42)	4,109	3,972	137

Ethanol segment revenues increased by \$138 million in 2018 compared to 2017 primarily due to an increase in ethanol sales volumes. This improvement in ethanol segment revenue was outweighed by higher cost of sales of \$228 million, resulting in a decrease in ethanol segment operating income of \$90 million in 2018



compared to 2017. The components of this decrease, along with the reasons for the changes in these components, are outlined below.

- Ethanol segment margin is primarily affected by ethanol and corn related co-product prices and the cost of corn. The table on page 38 reflects market reference prices that we believe had a material impact on the change in our ethanol segment margin in 2018 compared to 2017. Ethanol segment margin decreased by \$66 million in 2018 compared to 2017 primarily due to the following:
  - Lower ethanol prices had an unfavorable impact to our ethanol segment margin of approximately \$159 million.
  - Higher corn prices had an unfavorable impact to our ethanol segment margin of approximately \$36 million.
  - Higher prices of the corn related co-products that we produced had a favorable impact to our ethanol segment margin of approximately \$101 million.
  - Higher production volumes of 137,000 gallons per day had a favorable impact to our ethanol segment margin of approximately \$26 million.
- Ethanol segment operating expenses (excluding depreciation and amortization expense) increased by \$27 million primarily due to costs to operate the three plants acquired from Green Plains in November 2018 of \$14 million and higher chemicals and catalysts costs of \$8 million incurred by our other ethanol plants.

### Renewable Diesel Segment Results

The following table includes selected financial and operating data of our renewable diesel segment for 2018 and 2017. The selected financial data is derived from the Financial Highlights by Segment and Total Company tables on pages 35 and 36, respectively, unless otherwise noted.

	Year Ended December 31,		
	2018	2017	Change
Revenues	\$ 678	\$ 634	\$ 44
Cost of sales	357	574	(217)
Operating income	321	60	261
Adjusted operating income (see note (f) on page 42)	317	220	97
Margin (see note (f) on page 41)	412	296	116
Operating expenses (excluding depreciation and amortization expense reflected below)	66	47	19
Depreciation and amortization expense	29	29	—
Sales volumes (thousand gallons per day) (see note (g) on page 42)	431	440	(9)

Renewable diesel segment revenues increased by \$44 million in 2018 compared to 2017 primarily due to higher renewable diesel sales prices. This improvement in renewable diesel segment revenues, along with

a decrease in total cost of sales of \$217 million, resulted in an increase in renewable diesel segment operating income of \$261 million.

Renewable diesel segment adjusted operating income increased by \$97 million in 2018 compared to 2017. The components of this increase, along with the reasons for the changes in these components are outlined below.

- Renewable diesel segment margin increased by \$116 million in 2018 compared to 2017 primarily due to the following:
  - An increase in renewable diesel prices in 2018 had a favorable impact to our renewable diesel segment margin of \$60 million.
  - Price risk management activities had a favorable impact to our renewable diesel segment margin of \$40 million. We recognized a hedge gain of \$29 million in 2018 from commodity derivative instruments associated with our price risk management activities compared to a loss of \$11 million in 2017.
- Renewable diesel segment operating expenses (excluding depreciation and amortization expense) increased by \$19 million primarily attributable to higher chemical and catalyst costs of \$10 million and increased costs resulting from the expansion of the DGD Plant completed in the third quarter of 2018 of \$3 million.

## LIQUIDITY AND CAPITAL RESOURCES

### Overview

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

Our liquidity consisted of the following as of December 31, 2019 (in millions):

Available borrowing capacity from committed facilities:	
Valero Revolver	\$ 3,966
Canadian Revolver	112
Accounts receivable sales facility	1,200
Letter of credit facility	50
Total available borrowing capacity	5,328
Cash and cash equivalents <sup>(a)</sup>	2,473
Total liquidity	<u>\$ 7,801</u>

(a) Excludes \$110 million of cash and cash equivalents related to our variable interest entities (VIEs) that is available for use only by our VIEs.

Information about our outstanding borrowings, letters of credit issued, and availability under our credit facilities is reflected in Note 9 of Notes to Consolidated Financial Statements.

### Cash Flows

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

	Year Ended December 31,		
	2019	2018	2017
Cash flows provided by (used in):			
Operating activities	\$ 5,531	\$ 4,371	\$ 5,482
Investing activities	(3,001)	(3,928)	(2,382)
Financing activities	(2,997)	(3,168)	(2,272)
Effect of foreign exchange rate changes on cash	68	(143)	206
Net increase (decrease) in cash and cash equivalents	\$ (399)	\$ (2,868)	\$ 1,034

### Cash Flows for the Year Ended December 31, 2019

Our operations generated \$5.5 billion of cash in 2019, driven primarily by net income of \$2.8 billion, noncash charges to income of \$2.5 billion, and a positive change in working capital of \$294 million. Noncash charges included \$2.3 billion of depreciation and amortization expense and \$234 million of deferred income tax expense. See “RESULTS OF OPERATIONS” for further discussion of our operations. The change in our working capital is detailed in Note 18 of Notes to Consolidated Financial Statements. The source of cash resulting from the \$294 million change in working capital was mainly due to:

- an increase of \$1.5 billion in accounts payable due to an increase in commodity prices in December 2019 compared to December 2018 combined with an increase in crude oil volumes purchased and the timing of payments of invoices;
- a decrease of \$427 million in prepaid expenses and other mainly due to a decrease in income taxes receivable resulting from a refund of \$348 million, including interest, associated with the settlement of the combined audit related to our U.S. federal income tax returns for 2010 and 2011;
- an increase of \$153 million in income taxes payable primarily resulting from higher pre-tax income in the fourth quarter of 2019; partially offset by
- an increase of \$1.5 billion in receivables resulting from (i) an increase in commodity prices in December 2019 compared to December 2018 combined with an increase in sales volumes, and (ii) a receivable of \$449 million for the blender’s tax credit attributable to volumes blended during 2019 and 2018; and
- an increase of \$385 million in inventories due to an increase in commodity prices in December 2019 compared to December 2018 combined with higher inventory levels.

The \$5.5 billion of cash generated by our operations, along with (i) \$992 million of proceeds from debt issuances related to our 4.00 percent Senior Notes, (ii) \$239 million of proceeds from borrowings of VIEs, and (iii) \$399 million from available cash on hand, were used mainly to:

- fund \$2.7 billion in capital investments, as defined in “*Capital Investments*” on page 50, of which \$160 million related to self-funded capital investments by DGD;
- fund \$225 million of capital expenditures of VIEs other than DGD;
- acquire undivided interests in pipeline and terminal assets for \$72 million;
- redeem our 6.125 percent Senior Notes for \$871 million (or 102.48 percent of stated value);
- purchase common stock for treasury of \$777 million;

- pay common stock dividends of \$1.5 billion;
- acquire all of the outstanding publicly held common units of VLP for \$950 million; and
- pay distributions to noncontrolling interests of \$70 million.

In addition, during the year ended December 31, 2019, we sold and repaid \$900 million of eligible receivables under our accounts receivable sales facility.

### **Cash Flows for the Year Ended December 31, 2018**

Our operations generated \$4.4 billion of cash in 2018, driven primarily by net income of \$3.4 billion and noncash charges to income of \$2.3 billion, partially offset by a negative change in working capital of \$1.3 billion. Noncash charges included \$2.1 billion of depreciation and amortization expense and \$203 million of deferred income tax expense. See “RESULTS OF OPERATIONS” for further discussion of our operations. The change in our working capital is detailed in Note 18 of Notes to Consolidated Financial Statements. The use of cash resulting from the \$1.3 billion change in working capital was mainly due to:

- an increase of \$457 million in receivables resulting from an increase in sales volumes, partially offset by a decrease in commodity prices;
- an increase of \$197 million in inventory primarily due to higher inventory levels;
- a decrease of \$684 million in income taxes payable primarily resulting from (i) \$527 million of payments in early 2018 related to 2017 tax liabilities and (ii) \$181 million of payments in late 2018 that will be applied to 2019 tax liabilities;
- a decrease of \$113 million in accrued expenses mainly due to the timing of payments on our environmental compliance program obligations; partially offset by
- an increase of \$304 million in accounts payable due to an increase in crude oil and other feedstock volumes purchased, partially offset by a decrease in commodity prices.

The \$4.4 billion of cash generated by our operations, along with (i) \$1.3 billion of proceeds from debt issuances and borrowings, (ii) \$109 million of proceeds from borrowings of VIEs, and (iii) \$2.9 billion from available cash on hand, were used mainly to:

- fund \$2.7 billion in capital investments, of which \$192 million related to self-funded capital investments by DGD;
- fund \$124 million of capital expenditures of VIEs other than DGD;
- fund (i) \$468 million for the Peru Acquisition (as defined and discussed in Note 2 of Notes to Consolidated Financial Statements) in May 2018; (ii) \$320 million for the acquisition of three ethanol plants in November 2018; and (iii) \$88 million for other minor acquisitions;
- acquire undivided interests in pipeline and terminal assets for \$212 million;
- redeem our 9.375 percent Senior Notes for \$787 million (or 104.9 percent of stated value);
- make payments on debt and finance lease obligations of \$435 million, of which \$410 million related to the repayment of all outstanding borrowings under VLP’s \$750 million senior unsecured revolving credit facility (the VLP Revolver);
- retire \$137 million of debt assumed in connection with the Peru Acquisition;
- purchase common stock for treasury of \$1.7 billion;
- pay common stock dividends of \$1.4 billion; and
- pay distributions to noncontrolling interests of \$116 million.

### **Cash Flows for the Year Ended December 31, 2017**

Our operations generated \$5.5 billion of cash in 2017. Net income of \$4.2 billion, net of the \$1.9 billion noncash benefit from Tax Reform and other noncash charges of \$2.1 billion, and a positive change in working

capital of \$1.3 billion were the primary drivers of the cash generated by our operations in 2017. Other noncash charges included \$2.0 billion of depreciation and amortization expense. See “RESULTS OF OPERATIONS” for further discussion of our operations. The Tax Reform benefit and the change in our working capital are detailed in Notes 15 and 18, respectively, of Notes to Consolidated Financial Statements. The source of cash resulting from the \$1.3 billion change in working capital was mainly due to:

- an increase of \$1.8 billion in accounts payable primarily as a result of an increase in commodity prices;
- an increase of \$489 million in income taxes payable resulting from deferring the payment of our fourth quarter 2017 estimated taxes to January 2018, as allowed by tax relief authorization from the IRS; partially offset by
- an increase of \$870 million in receivables primarily as a result of an increase in commodity prices; and
- an increase of \$516 million in inventory due to higher volumes held combined with an increase in commodity prices.

The \$5.5 billion of cash generated by our operations, along with borrowings of \$380 million under the VLP Revolver, were used mainly to:

- fund \$2.3 billion in capital investments, of which \$88 million related to self-funded capital investments by DGD;
- fund \$26 million of capital expenditures of VIEs other than DGD;
- acquire an undivided interest in crude system assets for \$72 million;
- purchase common stock for treasury of \$1.4 billion;
- pay common stock dividends of \$1.2 billion;
- pay distributions to noncontrolling interests of \$67 million; and
- increase available cash on hand by \$1.0 billion.

### ***Capital Investments***

Our operations, especially those of our refining segment, are highly capital intensive. Each of our refineries comprises a large base of property assets, consisting of a series of interconnected, highly integrated and interdependent crude oil processing facilities and supporting logistical infrastructure (Units), and these Units are improved continuously. The cost of improvements, which consist of the addition of new Units and betterments of existing Units, can be significant. We have historically acquired our refineries at amounts significantly below their replacement costs, whereas our improvements are made at full replacement value. As such, the costs for improving our refinery assets increase over time and are significant in relation to the amounts we paid to acquire our refineries. We plan for these improvements by developing a multi-year capital program that is updated and revised based on changing internal and external factors.

We make improvements to our refineries in order to maintain and enhance their operating reliability, to meet environmental obligations with respect to reducing emissions and removing prohibited elements from the products we produce, or to enhance their profitability. Reliability and environmental improvements generally do not increase the throughput capacities of our refineries. Improvements that enhance refinery profitability may increase throughput capacity, but many of these improvements allow our refineries to process different types of crude oil and to refine crude oil into products with higher market values. Therefore, many of our improvements do not increase throughput capacity significantly.

We consider capital investments to include the following:

- Capital expenditures for purchases of, additions to, and improvements in our property, plant, and equipment, including those made by DGD but excluding other VIEs;
- Deferred turnaround and catalyst cost expenditures, including those made by DGD; and
- Investments in unconsolidated joint ventures.

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

We expect to make capital investments of approximately \$2.5 billion in 2020. Approximately 60 percent of those investments are for sustaining the business and 40 percent are for growth strategies. However, we continuously evaluate our capital budget and make changes as conditions warrant. This capital investment estimate excludes potential strategic acquisitions, including acquisitions of undivided interests.

### ***Other Matters Impacting Liquidity and Capital Resources***

#### **Stock Purchase Program**

On January 23, 2018, our board of directors authorized the 2018 Program for the purchase of our outstanding common stock. As of December 31, 2019, we had \$1.5 billion remaining available for purchase under the 2018 Program with no expiration date. We have no obligation to make purchases under this program.

#### **Pension Plan Funding**

We plan to contribute approximately \$140 million to our pension plans and \$21 million to our other postretirement benefit plans during 2020. See Note 13 of Notes to Consolidated Financial Statements for a discussion of our employee 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. 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 8 of Notes to Consolidated Financial Statements for disclosure of our environmental liabilities.

#### **Tax Matters**

We take tax positions in our tax returns from time to time that may not be ultimately allowed by the relevant taxing authority. When we take such positions, we evaluate the likelihood of sustaining those positions and determine the amount of tax benefit arising from such positions, if any, that should be recognized in our financial statements. Tax benefits not recognized by us are recorded as a liability for unrecognized tax benefits, which represents our potential future obligation to various taxing authorities if the tax positions are not sustained.

As of December 31, 2019, our liability for unrecognized tax benefits, excluding related interest and penalties, was \$868 million. Of this amount, \$525 million is associated with refund claims associated with taxes paid

on incentive payments received from the U.S. federal government for blending biofuels into refined petroleum products. We recorded a tax refund receivable of \$525 million in connection with our refund claims, but we also recorded a liability for unrecognized tax benefits of \$525 million due to the complexity of this matter and uncertainties with respect to sustaining these refund claims. Therefore, our financial position, results of operations, and liquidity will not be negatively impacted if we are unsuccessful in sustaining these refund claims. The remaining liability for unrecognized tax benefits, excluding related interest and penalties, of \$343 million represents our potential future obligations to various taxing authorities if the tax positions associated with that liability are not sustained.

Details about our liability for unrecognized tax benefits, along with other information about our unrecognized tax benefits, are included in Note 15 of Notes to Consolidated Financial Statements.

#### **Cash Held by Our International Subsidiaries**

As of December 31, 2019, \$1.5 billion of our cash and cash equivalents was held by our international subsidiaries. Cash held by our international subsidiaries can be repatriated to us without any U.S. federal income tax consequences as a result of the deemed repatriation provisions of Tax Reform, but certain other taxes may apply, including, but not limited to, withholding taxes imposed by certain international jurisdictions and U.S. state income taxes. Therefore, there is a cost to repatriate cash held by certain of our international subsidiaries to us, but we believe that such amount is not material to our financial position or liquidity.

#### **Concentration of Customers**

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

#### **OFF-BALANCE SHEET ARRANGEMENTS**

We have not entered into any transactions, agreements, or other contractual arrangements that would result in off-balance sheet liabilities.

## CONTRACTUAL OBLIGATIONS

Our contractual obligations as of December 31, 2019 are summarized below (in millions).

	Payments Due by Year						Total
	2020	2021	2022	2023	2024	Thereafter	
Debt and finance lease obligations (a)	\$ 541	\$ 103	\$ 93	\$ 110	\$ 82	\$ 9,485	\$ 10,414
Debt obligations – interest payments	464	462	455	449	449	3,947	6,226
Operating lease liabilities (b)	376	250	194	160	125	498	1,603
Purchase obligations	14,284	1,906	1,644	1,565	1,519	3,558	24,476
Other long-term liabilities (c)	—	160	168	200	215	2,185	2,928
Total	\$ 15,665	\$ 2,881	\$ 2,554	\$ 2,484	\$ 2,390	\$ 19,673	\$ 45,647

(a) Debt obligations exclude amounts related to unamortized discounts and debt issuance costs. Finance lease obligations include related interest expense. Debt obligations due in 2020 include \$348 million associated with borrowings under the IEnova Revolver (as defined and described in Note 9 of Notes to Consolidated Financial Statements) for the construction of terminals in Mexico by Central Mexico Terminals (as defined and described in Note 12 of Notes to Consolidated Financial Statements). The IEnova Revolver is only available to the operations of Central Mexico Terminals, and its creditors do not have recourse against us.

(b) Operating lease liabilities include related interest expense.

(c) Other long-term liabilities exclude amounts related to the long-term portion of operating lease liabilities that are separately presented above.

### Debt and Finance Lease Obligations

Our debt and finance lease obligations are described in Notes 9 and 5, respectively, of Notes to Consolidated Financial Statements.

Our debt and financing agreements do not have rating agency triggers that would automatically require us to post additional collateral. However, in the event of certain downgrades of our senior unsecured debt by the ratings agencies, the cost of borrowings under some of our bank credit facilities and other arrangements may increase. As of December 31, 2019, all of our ratings on our senior unsecured debt, including debt guaranteed by us, are at or above investment grade level as follows:

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

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

### Debt Obligations – Interest Payments

Interest payments for our debt obligations as described in Note 9 of Notes to Consolidated Financial Statements are the expected payments based on information available as of December 31, 2019.



### ***Operating Lease Liabilities***

Our operating lease liabilities arise from leasing arrangements for the right to use various classes of underlying assets as described in Note 5 of Notes to Consolidated Financial Statements. Operating lease liabilities are recognized for leasing arrangements with terms greater than one year and are not reduced by minimum lease payments to be received by us under subleases.

### ***Purchase Obligations***

A purchase obligation is an enforceable and legally binding agreement to purchase goods or services that specifies significant terms, including (i) fixed or minimum quantities to be purchased, (ii) fixed, minimum, or variable price provisions, and (iii) the approximate timing of the transaction. We have various purchase obligations under certain crude oil and other feedstock supply arrangements, industrial gas supply arrangements (such as hydrogen supply arrangements), natural gas supply arrangements, and various throughput, transportation and terminaling agreements. We enter into these contracts to ensure an adequate supply of feedstock and utilities and adequate storage capacity to operate our refineries and ethanol plants. Substantially all of our purchase obligations are based on market prices or adjustments based on market indices. Certain of these purchase obligations include fixed or minimum volume requirements, while others are based on our usage requirements. The purchase obligation amounts shown in the preceding table include both short- and long-term obligations and are based on (i) fixed or minimum quantities to be purchased and (ii) fixed or estimated prices to be paid based on current market conditions.

### ***Other Long-Term Liabilities***

Our other long-term liabilities are described in Note 8 of Notes to Consolidated Financial Statements. For purposes of reflecting amounts for other long-term liabilities in the preceding table, we made our best estimate of expected payments for each type of liability based on information available as of December 31, 2019.

## **NEW ACCOUNTING PRONOUNCEMENTS**

As discussed in Note 1 of Notes to Consolidated Financial Statements, certain new financial accounting pronouncements became effective January 1, 2020, or will become effective in the future. The effect on our financial statements upon adoption of these pronouncements is discussed in the above-referenced note.

## **CRITICAL ACCOUNTING POLICIES INVOLVING CRITICAL ACCOUNTING ESTIMATES**

The preparation of financial statements in accordance 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. The following summary provides further information about our critical accounting policies that involve critical accounting estimates, and should be read in conjunction with Note 1 of Notes to Consolidated Financial Statements, which summarizes our significant accounting policies. The following accounting policies involve estimates that are considered critical due to the level of subjectivity and judgment involved, as well as the impact on our financial position and results of operations. We believe that all of our estimates are reasonable. Unless otherwise noted, estimates of the sensitivity to earnings that would result from changes in the assumptions used in determining our estimates is not practicable due to the number of assumptions and contingencies involved, and the wide range of possible outcomes.

### ***Unrecognized Tax Benefits***

We take tax positions in our tax returns from time to time that may not be ultimately allowed by the relevant taxing authority. When we take such positions, we evaluate the likelihood of sustaining those positions and determine the amount of tax benefit arising from such positions, if any, that should be recognized in our financial statements. Tax benefits not recognized by us are recorded as a liability for unrecognized tax

benefits, which represents our potential future obligation to various taxing authorities if the tax positions are not sustained.

The evaluation of tax positions and the determination of the benefit arising from such positions that are recognized in our financial statements requires us to make significant judgments and estimates based on an analysis of complex tax laws and regulations and related interpretations. These judgments and estimates are subject to change due to many factors, including the progress of ongoing tax audits, case law, and changes in legislation.

Details of our liability for unrecognized tax benefits, along with other information about our unrecognized tax benefits, are included in Note 15 of Notes to Consolidated Financial Statements.

### ***Environmental Matters***

Our operations are subject to extensive environmental regulations by governmental authorities relating primarily to the discharge of materials into the environment, waste management, and pollution prevention measures. Future legislative action and regulatory initiatives could result in changes to required operating permits, additional remedial actions, or increased capital expenditures and operating costs that cannot be assessed with certainty at this time.

Accruals for environmental liabilities are based on best estimates of probable undiscounted future costs over a 20-year time period using currently available technology and applying current regulations, as well as our own internal environmental policies. However, environmental liabilities are difficult to assess and estimate due to uncertainties related to the magnitude of possible remediation, the timing of such remediation, and the determination of our obligation in proportion to other parties. Such estimates are subject to change due to many factors, including the identification of new sites requiring remediation, changes in environmental laws and regulations and their interpretation, additional information related to the extent and nature of remediation efforts, and potential improvements in remediation technologies.

The amount of our accruals for environmental matters are included in Note 8 of Notes to Consolidated Financial Statements.

### ***Pension and Other Postretirement Benefit Obligations***

We have significant pension and other postretirement benefit liabilities and costs that are developed from actuarial valuations. Inherent in these valuations are key assumptions including discount rates, expected return on plan assets, future compensation increases, and health care cost trend rates. These assumptions are disclosed and described in Note 13 of Notes to Consolidated Financial Statements. Changes in these assumptions are primarily influenced by factors outside of our control. For example, the discount rate assumption represents a yield curve comprised of various long-term bonds that have an average rating of double-A when averaging all available ratings by the recognized rating agencies, while the expected return on plan assets is based on a compounded return calculated assuming an asset allocation that is representative of the asset mix in our pension plans. To determine the expected return on plan assets, we utilized a forward-looking model of asset returns. The historical geometric average return over the 10 years prior to December 31, 2019 was 9.41 percent. The actual return on assets for the years ended December 31, 2019, 2018, and 2017 was 23.44 percent, (5.53) percent, and 19.31 percent, respectively. These assumptions can have a significant effect on the amounts reported in our financial statements.

The following sensitivity analysis shows the effects on the projected benefit obligation as of December 31, 2019 and net periodic benefit cost for the year ending December 31, 2020 (in millions):

	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>
Increase in projected benefit obligation resulting from:		
Discount rate decrease of 0.25%	\$ 134	\$ 10
Compensation rate increase of 0.25%	17	n/a
Increase in expense resulting from:		
Discount rate decrease of 0.25%	12	—
Expected return on plan assets decrease of 0.25%	6	n/a
Compensation rate increase of 0.25%	4	n/a

Our net periodic benefit cost is determined using the spot-rate approach. Under this approach, our net periodic benefit cost is impacted by the spot rates of the corporate bond yield curve used to calculate our liability discount rate. If the yield curve were to flatten entirely and our liability discount rate remained unchanged, our net periodic benefit cost would increase by \$16 million for pension benefits and \$2 million for other postretirement benefits in 2020.

See Note 13 of Notes to Consolidated Financial Statements for a discussion of our pension and other postretirement benefit obligations.

### ***Inventory Valuation***

The cost of our inventories is principally determined under the last-in, first-out (LIFO) method using the dollar-value LIFO approach. Our LIFO inventories are carried at the lower of cost or market value and our non-LIFO inventories are carried at the lower of cost or net realizable value. The market value of our LIFO inventories is determined based on the net realizable value of the inventories.

We compare the market value of inventories to their cost on an aggregate basis, excluding materials and supplies. In determining the market value of our inventories, we assume that feedstocks are converted into refined products, which requires us to make estimates regarding the refined products expected to be produced from those feedstocks and the conversion costs required to convert those feedstocks into refined products. We also estimate the usual and customary transportation costs required to move the inventory from our plants to the appropriate points of sale. We then apply an estimated selling price to our inventories. If the aggregate market value is less than cost, we recognize a loss for the difference in our statements of income.

**ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK****COMMODITY PRICE RISK**

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

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

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

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

	December 31,	
	2019	2018
Gain (loss) in fair value resulting from:		
10% increase in underlying commodity prices	\$ (39)	\$ 2
10% decrease in underlying commodity prices	38	(6)

See Note 20 of Notes to Consolidated Financial Statements for notional volumes associated with these derivative contracts as of December 31, 2019.

**COMPLIANCE PROGRAM PRICE RISK**

We are exposed to market risk related to the volatility in the price of credits needed to comply with various governmental and regulatory environmental compliance programs. To manage this risk, we enter into contracts to purchase these credits when prices are deemed favorable. Some of these contracts are derivative instruments; however, we elect the normal purchase exception and do not record these contracts at their fair values. As of December 31, 2019 and 2018, the amount of gain or loss in the fair value of derivative instruments that would have resulted from a 10 percent increase or decrease in the underlying price of the contracts was not material. See Note 20 of 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.

December 31, 2019								
Expected Maturity Dates								
	2020 (a)	2021	2022	2023	2024	There-after	Total (b)	Fair Value
Fixed rate	\$ —	\$ 11	\$ —	\$ —	\$ —	\$ 8,474	\$ 8,485	\$ 10,099
Average interest rate	—%	5.0%	—%	—%	—%	5.2%	5.2%	
Floating rate (c)	\$ 453	\$ 6	\$ 6	\$ 19	\$ —	\$ —	\$ 484	\$ 484
Average interest rate	5.0%	4.5%	4.5%	4.5%	—%	—%	5.0%	

December 31, 2018								
Expected Maturity Dates								
	2019 (a)	2020	2021	2022	2023	There-after	Total (b)	Fair Value
Fixed rate	\$ —	\$ 850	\$ 10	\$ —	\$ —	\$ 7,474	\$ 8,334	\$ 8,737
Average interest rate	—%	6.1%	5.0%	—%	—%	5.4%	5.5%	
Floating rate (c)	\$ 214	\$ 5	\$ 5	\$ 5	\$ 20	\$ —	\$ 249	\$ 249
Average interest rate	4.6%	4.7%	4.7%	4.7%	4.7%	—%	4.6%	

- (a) As of December 31, 2019 and 2018, our floating rate debt due in 2020 and 2019 includes \$348 million and \$109 million, respectively, associated with borrowings under the IEnova Revolver for the construction of terminals in Mexico by Central Mexico Terminals. The IEnova Revolver is only available to the operations of Central Mexico Terminals, and its creditors do not have recourse against us.
- (b) Excludes unamortized discounts and debt issuance costs.
- (c) As of December 31, 2019 and 2018, we had an interest rate swap associated with \$36 million and \$40 million, respectively, of our floating rate debt resulting in an effective interest rate of 3.85 percent as of each of those reporting dates. The fair value of the swap was immaterial for all periods presented.

## FOREIGN CURRENCY RISK

As of December 31, 2019, we had foreign currency contracts to purchase \$739 million of U.S. dollars and \$2.3 billion of U.S. dollar equivalent Canadian dollars. Our market risk was minimal on these contracts, as all of them matured on or before February 15, 2020.

## ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

### MANAGEMENT’S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Our management is responsible for establishing and maintaining adequate “internal control over financial reporting” (as defined in Rule 13a-15(f) under the Securities Exchange Act of 1934) for Valero Energy Corporation. Our management evaluated the effectiveness of Valero’s internal control over financial reporting as of December 31, 2019. In its evaluation, management used the criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Management believes that as of December 31, 2019, our internal control over financial reporting was effective based on those criteria.

Our independent registered public accounting firm has issued an attestation report on the effectiveness of our internal control over financial reporting, which begins on page 62 of this report.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders  
Valero Energy Corporation:

### *Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated balance sheets of Valero Energy Corporation and subsidiaries (the Company) as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2019 and 2018, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2019, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 26, 2020 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

### *Basis for Opinion*

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

### *Critical Audit Matter*

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgment. The communication of a critical audit matter does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

#### *Assessment of gross unrecognized tax benefits*

As discussed in Note 15 to the consolidated financial statements, as of December 31, 2019, the Company has gross unrecognized tax benefits, excluding related interest and penalties, of \$897 million. The Company's tax positions are subject to examination by local taxing authorities and the resolution of such examinations may span multiple years. Due to the complexities inherent in the interpretation of income tax laws in domestic and international jurisdictions, it is uncertain whether some of the Company's income tax positions will be sustained upon examination.

We identified the assessment of the Company's gross unrecognized tax benefits as a critical audit matter because complex auditor judgment was required in evaluating the Company's interpretation of income tax laws and assessing the Company's estimate of the ultimate resolution of its income tax positions.

The primary procedures we performed to address this critical audit matter included the following. We tested certain internal controls over the Company's income tax process, including controls to evaluate which of the Company's income tax positions may not be sustained upon examination and estimate the gross unrecognized tax benefits.

We involved domestic and international income tax professionals with specialized skills and knowledge, who assisted in:

- Obtaining an understanding and evaluating the Company's income tax positions as filed or intended to be filed;
- Evaluating the Company's interpretation of income tax laws by developing an independent assessment of the Company's income tax positions and comparing the results to the Company's assessment;
- Inspecting settlements with applicable taxing authorities; and
- Assessing the expiration of applicable statutes of limitations.

In addition, we evaluated the Company's ability to estimate its gross unrecognized tax benefits by comparing historical uncertain income tax positions, including the gross unrecognized tax benefits, to actual results upon conclusion of tax examinations.

/s/ KPMG LLP

We have served as the Company's auditor since 2004.

San Antonio, Texas  
February 26, 2020



## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders  
Valero Energy Corporation:

### *Opinion on Internal Control Over Financial Reporting*

We have audited Valero Energy Corporation's and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the consolidated financial statements), and our report dated February 26, 2020 expressed an unqualified opinion on those consolidated financial statements.

### *Basis for Opinion*

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

### *Definition and Limitations of Internal Control Over Financial Reporting*

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial

statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

San Antonio, Texas  
February 26, 2020

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

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 2,583	\$ 2,982
Receivables, net	8,904	7,345
Inventories	7,013	6,532
Prepaid expenses and other	469	816
Total current assets	18,969	17,675
Property, plant, and equipment, at cost	44,294	42,473
Accumulated depreciation	(15,030)	(13,625)
Property, plant, and equipment, net	29,264	28,848
Deferred charges and other assets, net	5,631	3,632
Total assets	\$ 53,864	\$ 50,155
<b>LIABILITIES AND EQUITY</b>		
Current liabilities:		
Current portion of debt and finance lease obligations	\$ 494	\$ 238
Accounts payable	10,205	8,594
Accrued expenses	949	630
Taxes other than income taxes payable	1,304	1,213
Income taxes payable	208	49
Total current liabilities	13,160	10,724
Debt and finance lease obligations, less current portion	9,178	8,871
Deferred income tax liabilities	5,103	4,962
Other long-term liabilities	3,887	2,867
Commitments and contingencies		
Equity:		
Valero Energy Corporation stockholders' equity:		
Common stock, \$0.01 par value; 1,200,000,000 shares authorized; 673,501,593 and 673,501,593 shares issued	7	7
Additional paid-in capital	6,821	7,048
Treasury stock, at cost; 264,209,742 and 255,905,051 common shares	(15,648)	(14,925)
Retained earnings	31,974	31,044
Accumulated other comprehensive loss	(1,351)	(1,507)
Total Valero Energy Corporation stockholders' equity	21,803	21,667
Noncontrolling interests	733	1,064
Total equity	22,536	22,731
Total liabilities and equity	\$ 53,864	\$ 50,155

See Notes to Consolidated Financial Statements.

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

	Year Ended December 31,		
	2019	2018	2017
Revenues (a)	\$ 108,324	\$ 117,033	\$ 93,980
Cost of sales:			
Cost of materials and other	96,476	104,732	83,037
Operating expenses (excluding depreciation and amortization expense reflected below)	4,868	4,690	4,504
Depreciation and amortization expense	2,202	2,017	1,934
Total cost of sales	103,546	111,439	89,475
Other operating expenses	21	45	61
General and administrative expenses (excluding depreciation and amortization expense reflected below)	868	925	829
Depreciation and amortization expense	53	52	52
Operating income	3,836	4,572	3,563
Other income, net	104	130	112
Interest and debt expense, net of capitalized interest	(454)	(470)	(468)
Income before income tax expense (benefit)	3,486	4,232	3,207
Income tax expense (benefit)	702	879	(949)
Net income	2,784	3,353	4,156
Less: Net income attributable to noncontrolling interests	362	231	91
Net income attributable to Valero Energy Corporation stockholders	\$ 2,422	\$ 3,122	\$ 4,065
Earnings per common share	\$ 5.84	\$ 7.30	\$ 9.17
Weighted-average common shares outstanding (in millions)	413	426	442
Earnings per common share – assuming dilution	\$ 5.84	\$ 7.29	\$ 9.16
Weighted-average common shares outstanding – assuming dilution (in millions)	414	428	444
Supplemental information:			
(a) Includes excise taxes on sales by certain of our international operations	\$ 5,595	\$ 5,626	\$ 5,573

See Notes to Consolidated Financial Statements.

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

	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Net income	\$ 2,784	\$ 3,353	\$ 4,156
Other comprehensive income (loss):			
Foreign currency translation adjustment	349	(517)	514
Net gain (loss) on pension and other postretirement benefits	(234)	49	(65)
Net loss on cash flow hedges	(8)	—	—
Other comprehensive income (loss) before income tax expense (benefit)	107	(468)	449
Income tax expense (benefit) related to items of other comprehensive income (loss)	(48)	10	(21)
Other comprehensive income (loss)	155	(478)	470
Comprehensive income	2,939	2,875	4,626
Less: Comprehensive income attributable to noncontrolling interests	361	229	91
Comprehensive income attributable to Valero Energy Corporation stockholders	\$ 2,578	\$ 2,646	\$ 4,535

See Notes to Consolidated Financial Statements.

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

Valero Energy Corporation Stockholders' Equity								
	Common Stock	Additional Paid-in Capital	Treasury Stock	Retained Earnings	Accumulated Other Comprehensive Loss	Total	Non- controlling Interests	Total Equity
<b>Balance as of December 31, 2016</b>	\$ 7	\$ 7,088	\$ (12,027)	\$ 26,366	\$ (1,410)	\$ 20,024	\$ 830	\$ 20,854
Net income	—	—	—	4,065	—	4,065	91	4,156
Dividends on common stock (\$2.80 per share)	—	—	—	(1,242)	—	(1,242)	—	(1,242)
Stock-based compensation expense	—	68	—	—	—	68	—	68
Transactions in connection with stock-based compensation plans	—	(82)	19	—	—	(63)	—	(63)
Stock purchases under purchase programs	—	—	(1,307)	—	—	(1,307)	—	(1,307)
Issuance of Valero Energy Partners LP common units	—	—	—	—	—	—	33	33
Contributions from noncontrolling interests	—	—	—	—	—	—	30	30
Distributions to noncontrolling interests	—	—	—	—	—	—	(67)	(67)
Other	—	(35)	—	11	—	(24)	(8)	(32)
Other comprehensive income	—	—	—	—	470	470	—	470
<b>Balance as of December 31, 2017</b>	7	7,039	(13,315)	29,200	(940)	21,991	909	22,900
Reclassification of stranded income tax effects	—	—	—	91	(91)	—	—	—
Net income	—	—	—	3,122	—	3,122	231	3,353
Dividends on common stock (\$3.20 per share)	—	—	—	(1,369)	—	(1,369)	—	(1,369)
Stock-based compensation expense	—	82	—	—	—	82	—	82
Transactions in connection with stock-based compensation plans	—	(70)	(99)	—	—	(169)	—	(169)
Stock purchases under purchase programs	—	—	(1,511)	—	—	(1,511)	—	(1,511)
Contributions from noncontrolling interests	—	—	—	—	—	—	32	32
Distributions to noncontrolling interests	—	—	—	—	—	—	(116)	(116)
Other	—	(3)	—	—	—	(3)	10	7
Other comprehensive loss	—	—	—	—	(476)	(476)	(2)	(478)
<b>Balance as of December 31, 2018</b>	7	7,048	(14,925)	31,044	(1,507)	21,667	1,064	22,731
Net income	—	—	—	2,422	—	2,422	362	2,784
Dividends on common stock (\$3.60 per share)	—	—	—	(1,492)	—	(1,492)	—	(1,492)
Stock-based compensation expense	—	77	—	—	—	77	—	77
Transactions in connection with stock-based compensation plans	—	(50)	30	—	—	(20)	—	(20)
Stock purchases under purchase program	—	—	(753)	—	—	(753)	—	(753)
Acquisition of Valero Energy Partners LP publicly held common units	—	(328)	—	—	—	(328)	(622)	(950)
Distributions to noncontrolling interests	—	—	—	—	—	—	(70)	(70)
Other	—	74	—	—	—	74	—	74
Other comprehensive income (loss)	—	—	—	—	156	156	(1)	155
<b>Balance as of December 31, 2019</b>	\$ 7	\$ 6,821	\$ (15,648)	\$ 31,974	\$ (1,351)	\$ 21,803	\$ 733	\$ 22,536

See Notes to Consolidated Financial Statements.

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

	Year Ended December 31,		
	2019	2018	2017
Cash flows from operating activities:			
Net income	\$ 2,784	\$ 3,353	\$ 4,156
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization expense	2,255	2,069	1,986
Deferred income tax expense (benefit)	234	203	(2,543)
Changes in current assets and current liabilities	294	(1,297)	1,289
Changes in deferred charges and credits and other operating activities, net	(36)	43	594
Net cash provided by operating activities	5,531	4,371	5,482
Cash flows from investing activities:			
Capital expenditures (excluding variable interest entities (VIEs))	(1,627)	(1,463)	(1,269)
Capital expenditures of VIEs:			
Diamond Green Diesel Holdings LLC (DGD)	(142)	(165)	(84)
Other VIEs	(225)	(124)	(26)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	(762)	(888)	(519)
Deferred turnaround and catalyst cost expenditures of DGD	(18)	(27)	(4)
Investments in unconsolidated joint ventures	(164)	(181)	(406)
Peru Acquisition, net of cash acquired	—	(468)	—
Acquisition of ethanol plants	(3)	(320)	—
Acquisitions of undivided interests	(72)	(212)	(72)
Minor acquisitions	—	(88)	—
Other investing activities, net	12	8	(2)
Net cash used in investing activities	(3,001)	(3,928)	(2,382)
Cash flows from financing activities:			
Proceeds from debt issuances and borrowings (excluding VIEs)	1,892	1,258	380
Proceeds from borrowings of VIEs	239	109	—
Repayments of debt and finance lease obligations (excluding VIEs)	(1,805)	(1,353)	(15)
Repayments of debt of VIEs	(6)	(6)	(6)
Purchases of common stock for treasury	(777)	(1,708)	(1,372)
Common stock dividends	(1,492)	(1,369)	(1,242)
Acquisition of Valero Energy Partners LP publicly held common units	(950)	—	—
Contributions from noncontrolling interests	—	32	30
Distributions to noncontrolling interests	(70)	(116)	(67)
Other financing activities, net	(28)	(15)	20
Net cash used in financing activities	(2,997)	(3,168)	(2,272)
Effect of foreign exchange rate changes on cash	68	(143)	206
Net increase (decrease) in cash and cash equivalents	(399)	(2,868)	1,034
Cash and cash equivalents at beginning of year	2,982	5,850	4,816
Cash and cash equivalents at end of year	\$ 2,583	\$ 2,982	\$ 5,850

See Notes to Consolidated Financial Statements.

**VALERO ENERGY CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**1. DESCRIPTION OF BUSINESS, BASIS OF PRESENTATION, AND SIGNIFICANT ACCOUNTING POLICIES**

***Description of Business***

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

We are an international manufacturer and marketer of transportation fuels and petrochemical products. We own and operate 15 petroleum refineries with a combined throughput capacity of approximately 3.15 million barrels per day and 14 ethanol plants with a combined production capacity of approximately 1.73 billion gallons per year as of December 31, 2019. The petroleum refineries are located in the United States (U.S.), Canada, and the United Kingdom (U.K.), and the ethanol plants are located in the Mid-Continent region of the U.S. We are also a joint venture partner in DGD, which owns and operates a renewable diesel plant in Norco, Louisiana. We sell our products in the wholesale rack or bulk markets in the U.S., Canada, the U.K., Ireland, and Latin America. Approximately 7,000 outlets carry our brand names.

***Basis of Presentation***

**General**

These consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles (GAAP) and with the rules and regulations of the U.S. Securities and Exchange Commission (SEC).

**Reclassifications**

Effective January 1, 2019, we revised our reportable segments to reflect a new reportable segment — renewable diesel. The renewable diesel segment includes the operations of DGD, our consolidated joint venture as discussed in Note 12, that were transferred from the refining segment. Also effective January 1, 2019, we no longer have a VLP segment, and we now include the operations of Valero Energy Partners LP and its consolidated subsidiaries (VLP) in our refining segment. Our prior period segment information has been retrospectively adjusted to reflect our current segment presentation. See Note 2 regarding our merger with VLP, which occurred on January 10, 2019, and Note 17 for segment information.

Prior year amounts for capital expenditures and deferred turnaround and catalyst cost expenditures in the consolidated statements of cash flows have been reclassified to conform to the 2019 presentation to separately provide these expenditures for us and our consolidated VIEs.

***Significant Accounting Policies***

**Principles of Consolidation**

These financial statements include those of Valero, our wholly owned subsidiaries, and VIEs in which we have a controlling financial interest. Our VIEs are described in Note 12. The ownership interests held by others in the VIEs are recorded as noncontrolling interests. Intercompany items and transactions have been eliminated in consolidation. Investments in less than wholly owned entities where we have significant influence are accounted for using the equity method.

**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



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

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.

**Cash Equivalents**

Our cash equivalents are short-term, highly liquid investments that are readily convertible to known amounts of cash and have a maturity of three months or less when acquired.

**Receivables**

Trade receivables are carried at original invoice amount. We maintain an allowance for doubtful accounts, which is adjusted based on management's assessment of our customers' historical collection experience, known credit risks, and industry and economic conditions.

**Inventories**

The cost of refinery feedstocks and refined petroleum products, grain and ethanol, and renewable diesel feedstocks (animal fats, used cooking oils, and other vegetable oils) and renewable diesel is determined under the last-in, first-out (LIFO) method using the dollar-value LIFO approach, with any increments valued based on average purchase prices during the year. Our LIFO inventories are carried at the lower of cost or market. The cost of products purchased for resale and the cost of materials and supplies are determined principally under the weighted-average cost method. Our non-LIFO inventories are carried at the lower of cost or net realizable value. If the aggregate market value of our LIFO inventories or the aggregate net realizable value of our non-LIFO inventories is less than the related aggregate cost, we recognize a loss for the difference in our statements of income.

**Property, Plant, and Equipment**

The cost of property, plant, and equipment (property assets) purchased or constructed, including betterments of property assets, is capitalized. However, the cost of repairs to and normal maintenance of property assets is expensed as incurred. Betterments of property assets are those that extend the useful life, increase the capacity or improve the operating efficiency of the asset, or improve the safety of our operations. The cost of property assets constructed includes interest and certain overhead costs allocable to the construction activities.

Our operations, especially those of our refining segment, are highly capital intensive. Each of our refineries comprises a large base of property assets, consisting of a series of interconnected, highly integrated and interdependent crude oil processing facilities and supporting logistical infrastructure (Units), and these Units are continuously improved. Improvements consist of the addition of new Units and betterments of existing Units. We plan for these improvements by developing a multi-year capital program that is updated and revised based on changing internal and external factors.

Depreciation of property assets used in our refining and renewable diesel segments is recorded on a straight-line basis over the estimated useful lives of these assets primarily using the composite method of depreciation. We maintain a separate composite group of property assets for each of our refineries and our renewable diesel plant. We estimate the useful life of each group based on an evaluation of the property assets comprising the group, and such evaluations consist of, but are not limited to, the physical inspection of the assets to determine their condition, consideration of the manner in which the assets are maintained, assessment of the

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

need to replace assets, and evaluation of the manner in which improvements impact the useful life of the group. The estimated useful lives of our composite groups range primarily from 20 to 30 years.

Under the composite method of depreciation, the cost of an improvement is added to the composite group to which it relates and is depreciated over that group's estimated useful life. We design improvements to our refineries and renewable diesel plant in accordance with engineering specifications, design standards, and practices accepted in our industry, and these improvements have design lives consistent with our estimated useful lives. Therefore, we believe the use of the group life to depreciate the cost of improvements made to the group is reasonable because the estimated useful life of each improvement is consistent with that of the group.

Also under the composite method of depreciation, the historical cost of a minor property asset (net of salvage value) that is retired or replaced is charged to accumulated depreciation and no gain or loss is recognized in income. However, a gain or loss is recognized in income for a major property asset that is retired, replaced, sold, or for an abnormal disposition of a property asset (primarily involuntary conversions). Gains and losses are reflected in depreciation and amortization expense, unless such amounts are reported separately due to materiality.

Depreciation of property assets used in our ethanol segment is recorded on a straight-line basis over the estimated useful lives of the related assets. The estimated useful life of our grain processing equipment is 20 years.

Leasehold improvements are amortized on a straight-line basis over the shorter of the lease term or the estimated useful life of the related asset. Finance lease ROU (defined below) assets are amortized as discussed in "Leases" below.

**Deferred Charges and Other Assets**

"Deferred charges and other assets, net" primarily include the following:

- turnaround costs, which are incurred in connection with planned major maintenance activities at our refineries, ethanol plants, and renewable diesel plant, are deferred when incurred and amortized on a straight-line basis over the period of time estimated to lapse until the next turnaround occurs;
- fixed-bed catalyst costs, representing the cost of catalyst that is changed out at periodic intervals when the quality of the catalyst has deteriorated beyond its prescribed function, are deferred when incurred and amortized on a straight-line basis over the estimated useful life of the specific catalyst;
- operating lease ROU (defined below) assets, which are amortized as discussed in "Leases" below;
- investments in unconsolidated joint ventures;
- income taxes receivable;
- intangible assets, which are amortized over their estimated useful lives; and
- goodwill.

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

**Leases**

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

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

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

**Impairment of Assets**

Long-lived assets are tested for recoverability whenever events or changes in circumstances indicate that the carrying amount of the asset may not be recoverable. A long-lived asset is not recoverable if its carrying amount exceeds the sum of the undiscounted cash flows expected to result from its use and eventual disposition. If a long-lived asset is not recoverable, an impairment loss is recognized for the amount by which the carrying amount of the long-lived asset exceeds its fair value, with fair value determined based on discounted estimated net cash flows or other appropriate methods.

We evaluate our equity method investments for impairment when there is evidence that we may not be able to recover the carrying amount of our investments or the investee is unable to sustain an earnings capacity that justifies the carrying amount. A loss in the value of an investment that is other than a temporary decline is recognized currently in income based on the difference between the estimated current fair value of the investment and its carrying amount.

**Asset Retirement Obligations**

We record a liability, which is referred to as an asset retirement obligation, at fair value for the estimated cost to retire a tangible long-lived asset at the time we incur that liability, which is generally when the asset is purchased, constructed, or leased. We record the liability when we have a legal obligation to incur costs to retire the asset and when a reasonable estimate of the fair value of the liability can be made. If a reasonable

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

estimate cannot be made at the time the liability is incurred, we record the liability when sufficient information is available to estimate the liability's fair value.

We have obligations with respect to certain of our assets related to our refining and ethanol segments to clean and/or dispose of various component parts of the assets at the time they are retired. However, these component parts can be used for extended and indeterminate periods of time as long as they are properly maintained and/or upgraded. It is our practice and current intent to maintain all our assets and continue making improvements to those assets based on technological advances. As a result, we believe that our assets related to our refining and ethanol segments have indeterminate lives for purposes of estimating asset retirement obligations because dates or ranges of dates upon which we would retire such assets cannot reasonably be estimated at this time. We will recognize a liability at such time when sufficient information exists to estimate a date or range of potential settlement dates that is needed to employ a present value technique to estimate fair value.

**Environmental Matters**

Liabilities for future remediation costs are recorded when environmental assessments and/or remedial efforts are probable and the costs can be reasonably estimated. Other than for assessments, the timing and magnitude of these accruals generally are based on the completion of investigations or other studies or a commitment to a formal plan of action. Amounts recorded for environmental liabilities have not been reduced by possible recoveries from third parties and have not been measured on a discounted basis.

**Legal Contingencies**

We are subject to legal proceedings, claims, and liabilities that arise in the ordinary course of business. We accrue losses associated with legal claims when such losses are probable and reasonably estimable. If we determine that a loss is probable and cannot estimate a specific amount for that loss but can estimate a range of loss, the best estimate within the range is accrued. If no amount within the range is a better estimate than any other, the minimum amount of the range is accrued. Estimates are adjusted as additional information becomes available or circumstances change. Legal defense costs associated with loss contingencies are expensed in the period incurred.

**Foreign Currency Translation**

Generally, our international subsidiaries use their local currency as their functional currency. Balance sheet amounts are translated into U.S. dollars using exchange rates in effect as of the balance sheet date. Income statement amounts are translated into U.S. dollars using the exchange rates in effect at the time the underlying transactions occur. Foreign currency translation adjustments are recorded as a component of accumulated other comprehensive loss.

**Revenue Recognition**

Our revenues are primarily generated from contracts with customers. We generate revenue from contracts with customers from the sale of products by our refining, ethanol, and renewable diesel segments. Revenues are recognized when we satisfy our performance obligation to transfer products to our customers, which typically occurs at a point in time upon shipment or delivery of the products, and for an amount that reflects the transaction price that is allocated to the performance obligation.

The customer is able to direct the use of, and obtain substantially all of the benefits from, the products at the point of shipment or delivery. As a result, we consider control to have transferred upon shipment or delivery.

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

because we have a present right to payment at that time, the customer has legal title to the asset, we have transferred physical possession of the asset, and the customer has significant risks and rewards of ownership of the asset.

Our contracts with customers state the final terms of the sale, including the description, quantity, and price for goods sold. Payment is typically due in full within two to ten days of delivery. In the normal course of business, we generally do not accept product returns.

The transaction price is the consideration that we expect to be entitled to in exchange for our products. The transaction price for substantially all of our contracts is generally based on commodity market pricing (i.e., variable consideration). As such, this market pricing may be constrained (i.e., not estimable) at the inception of the contract but will be recognized based on the applicable market pricing, which will be known upon transfer of the goods to the customer. Some of our contracts also contain variable consideration in the form of sales incentives to our customers, such as discounts and rebates. For contracts that include variable consideration, we estimate the factors that determine the variable consideration in order to establish the transaction price.

We have elected to exclude from the measurement of the transaction price all taxes assessed by governmental authorities that are both imposed on and concurrent with a specific revenue-producing transaction and collected by us from a customer (e.g., sales tax, use tax, value-added tax, etc.). We continue to include in the transaction price excise taxes that are imposed on certain inventories in our international operations. The amount of such taxes is provided in supplemental information in a footnote on the statements of income.

There are instances where we provide shipping services in relation to the goods sold to our customer. Shipping and handling costs that occur before the customer obtains control of the goods are deemed to be fulfillment activities and are included in cost of materials and other. We have elected to account for shipping and handling activities that occur after the customer has obtained control of a good as fulfillment activities rather than as a promised service and we have included these activities in cost of materials and other.

We enter into certain purchase and sale arrangements with the same counterparty that are deemed to be made in contemplation of one another. We combine these transactions and present the net effect in cost of materials and other. We also enter into refined petroleum product exchange transactions to fulfill sales contracts with our customers by accessing refined petroleum products in markets where we do not operate our own refineries. These refined petroleum product exchanges are accounted for as exchanges of nonmonetary assets, and no revenues are recorded on these transactions.

**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, emission credits under various cap-and-trade systems, as defined in Note 19); (iv) the blender’s tax credit recognized on qualified biodiesel mixtures; (v) gains and losses on our commodity derivative instruments; and (vi) certain excise taxes.

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

“Operating expenses (excluding depreciation and amortization expense)” include costs to operate our refineries, ethanol plants, and logistics assets, except for depreciation and amortization expense. These costs primarily include employee-related expenses, energy and utility costs, catalysts and chemical costs, and repair 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 general and administrative expenses and is disclosed by reportable segment in Note 17.

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

**Environmental Compliance Program Costs**

We purchase credits in the open market to meet our obligations under various environmental compliance programs. We purchase biofuel credits (primarily RINs in the U.S.) to comply with government regulations that require us to blend a certain percentage of biofuels into the products we produce. To the degree that we are unable to blend biofuels at the required percentage, we must purchase biofuel credits to meet our obligation. We purchase greenhouse gas (GHG) emission credits to comply with government regulations concerning various GHG emission programs, including cap-and-trade systems. These programs are described in Note 20 under “Environmental Compliance Program Price Risk.”

The costs of purchased biofuel credits and GHG emission credits are charged to cost of materials and other as such credits are needed to satisfy our obligation. To the extent we have not purchased enough credits to satisfy our obligation as of the balance sheet date, we charge cost of materials and other for such deficiency based on the market price of the credits as of the balance sheet date, and we record a liability for our obligation to purchase those credits. See Note 19 for disclosure of our fair value liability.

**Stock-Based Compensation**

Compensation expense for our share-based compensation plans is based on the fair value of the awards granted and is recognized in income on a straight-line basis over the shorter of (i) the requisite service period of each award or (ii) the period from the grant date to the date retirement eligibility is achieved if that date is expected to occur during the vesting period established in the award.

**Income Taxes**

Income taxes are accounted for under the asset and liability method. Under this method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred amounts are measured using enacted tax rates expected to apply to taxable income in the year those temporary differences are expected to be recovered or settled. Deferred tax assets are reduced by unrecognized tax benefits, if such items may be available to offset the unrecognized tax benefit. Stranded income tax effects are released from accumulated other comprehensive loss to retained earnings on an individual item basis as those items are reclassified into income.

We have elected to classify any interest expense and penalties related to the underpayment of income taxes in income tax expense.

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

We have elected to treat the global intangible low-taxed income (GILTI) tax as a period expense.

**Earnings per Common Share**

Earnings per common share is computed by dividing net income attributable to Valero stockholders by the weighted-average number of common shares outstanding for the year. Participating securities are included in the computation of basic earnings per share using the two-class method. Earnings per common share – assuming dilution is computed by dividing net income attributable to Valero stockholders by the weighted-average number of common shares outstanding for the year increased by the effect of dilutive securities. Potentially dilutive securities are excluded from the computation of earnings per common share – assuming dilution when the effect of including such shares would be antidilutive.

**Financial Instruments**

Our financial instruments include cash and cash equivalents, receivables, payables, debt, operating and finance lease obligations, commodity derivative contracts, and foreign currency derivative contracts. The estimated fair values of these financial instruments approximate their carrying amounts, except for certain debt as discussed in Note 19.

**Derivatives and Hedging**

All derivative instruments, not designated as normal purchases or sales, are recorded in the balance sheet as either assets or liabilities measured at their fair values with changes in fair value recognized currently in income. To manage commodity price risk, we primarily use cash flow hedges and economic hedges, and we also use fair value hedges from time to time. The cash flow effects of all of our derivative instruments are reflected in operating activities in the consolidated statements of cash flows.

***Accounting Pronouncements Adopted During 2019***

**Topic 842**

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

In addition, we elected the transition practical expedient package that permits us to not reassess our prior conclusions about lease identification, lease classification, and initial direct costs under the new standard, as well as the practical expedient that permits us to not assess existing land easements under the new standard. See “Leases” above for a discussion of our revised accounting policy and also see Note 5 for information on our leases.

In preparation for the adoption of Topic 842, we enhanced our contracting and lease evaluation systems and related processes, and we developed a new lease accounting system to capture our leases and support the

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

required disclosures. We integrated our lease accounting system with our general ledger and modified our related procurement and payment processes.

Adoption of this standard resulted in (i) the recognition of ROU assets and lease liabilities for our operating leases of \$1.3 billion, (ii) the derecognition of existing assets under construction of \$539 million related to a build-to-suit lease arrangement with respect to the MVP Terminal (see Note 10 under “*Contractual Capital Commitments—MVP Terminal*”), and (iii) the presentation of new disclosures about our leasing activities beginning in the first quarter of 2019. Adoption of this standard did not impact our results of operations or liquidity, and our accounting for finance leases is substantially unchanged.

**Other**

In addition to the adoption of Topic 842 discussed above, we adopted the following Accounting Standards Update (ASU) on January 1, 2019. Our adoption of this ASU did not affect our financial statements or related disclosures.

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

***Accounting Pronouncements Adopted on January 1, 2020***

The following ASUs were adopted on January 1, 2020, and our adoption did not have a material impact on our financial statements or related disclosures.

ASU	Basis of Adoption
2016-13      Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (including codification improvements in ASUs 2018-19 and 2019-11 and ASU 2020-02—Financial Instruments—Credit Losses (Topic 326): Amendments to SEC Paragraphs Pursuant to SEC Staff Accounting Bulletin No. 119)	Cumulative effect
2018-15      Intangibles—Goodwill and Other—Internal-Use Software (Subtopic 350-40): Customer’s Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract	Prospectively
2019-12      Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes	Prospectively



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

**2. MERGER AND ACQUISITIONS**

***Merger with VLP***

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

Prior to the completion of the Merger Transaction, we consolidated the financial statements of VLP (see Note 12) and reflected noncontrolling interests on our balance sheet for the portion of VLP's partners' capital held by VLP's public common unitholders. Upon completion of the Merger Transaction, VLP became our indirect wholly owned subsidiary and, as a result, we no longer reflect noncontrolling interests on our balance sheet with respect to VLP. In addition, we no longer attribute a portion of VLP's net income to noncontrolling interests. Because we had a controlling financial interest in VLP before the Merger Transaction and retained our controlling financial interest in VLP after the Merger Transaction, the change in our ownership interest in VLP as a result of the merger was accounted for as an equity transaction. Accordingly, we did not recognize a gain or loss on the Merger Transaction.

***Acquisition of Ethanol Plants***

On November 15, 2018, we acquired three ethanol plants from two subsidiaries of Green Plains Inc. for total cash consideration of \$320 million including working capital of \$20 million. The ethanol plants are located in Bluffton, Indiana; Lakota, Iowa; and Riga, Michigan with a combined ethanol production capacity of 280 million gallons per year. This acquisition was accounted for as an asset acquisition.

***Peru Acquisition***

On May 14, 2018, we acquired 100 percent of the issued and outstanding equity interests in Pure Biofuels del Peru S.A.C. (now known as Valero Peru S.A.C.) (Valero Peru) from Pegasus Capital Advisors L.P. and various minority equity holders. Valero Peru markets refined petroleum products through its logistics assets in Peru. Valero Peru owns a terminal at the Port of Callao, near Lima, with approximately 1 million barrels of storage capacity for refined petroleum and renewable products. Through one of its subsidiaries, Valero Peru also owns a 180,000-barrel storage terminal in Paita, in northern Peru, which is scheduled to commence operations in the second quarter of 2020, pending regulatory approvals. This acquisition, which is referred to as the Peru Acquisition, was consistent with our general business strategy and broadens the geographic diversity of our refining segment. This acquisition was accounted for as a business combination.

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

The following table summarizes the fair values of the assets acquired and liabilities assumed at the acquisition date, based on an independent appraisal that was completed in the fourth quarter of 2018 (in millions). We paid \$468 million from available cash on hand, of which \$132 million was for working capital. During the third and fourth quarters of 2018, we recognized immaterial adjustments to the preliminary amounts recorded for the Peru Acquisition with a corresponding adjustment to goodwill due to the completion of the independent appraisal. These adjustments did not have a material effect on our results of operations for the year ended December 31, 2018.

Current assets, net of cash acquired	\$ 158
Property, plant, and equipment	102
Deferred charges and other assets	466
Current liabilities, excluding current portion of debt	(26)
Debt assumed, including current portion	(137)
Deferred income tax liabilities	(62)
Other long-term liabilities	(27)
Noncontrolling interest	(6)
Total consideration, net of cash acquired	<u>\$ 468</u>

Deferred charges and other assets primarily include identifiable intangible assets of \$200 million and goodwill of \$260 million. Identifiable intangible assets, which consist of customer contracts and relationships, are amortized on a straight-line basis over ten years. Goodwill is calculated as the excess of the consideration transferred over the estimated fair values of the underlying tangible and identifiable intangible assets acquired and liabilities assumed. Goodwill represents the future economic benefits expected to be recognized from our expansion into the Latin American refined petroleum products markets arising from other assets acquired that were not individually identified and separately recognized. We determined that the entire balance of goodwill is related to the refining segment. None of the goodwill is deductible for tax purposes.

Our statements of income include the results of operations of Valero Peru since the date of acquisition, and such results are reflected in the refining segment. Results of operations since the date of acquisition, supplemental pro forma financial information, and acquisition-related costs have not been presented for the Peru Acquisition as such information is not material to our results of operations.

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

**3. RECEIVABLES**

Receivables consisted of the following (in millions):

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Receivables from contracts with customers	\$ 5,610	\$ 4,673
Receivables from certain purchase and sale arrangements	2,484	2,311
Commodity derivative and foreign currency contract receivables	116	229
Other receivables	730	166
Total receivables	8,940	7,379
Allowance for doubtful accounts	(36)	(34)
Receivables, net	\$ 8,904	\$ 7,345

There were no significant changes in our allowance for doubtful accounts during the years ended December 31, 2019, 2018, and 2017.

**4. INVENTORIES**

Inventories consisted of the following (in millions):

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Refinery feedstocks	\$ 2,399	\$ 2,265
Refined petroleum products and blendstocks	4,034	3,653
Ethanol feedstocks and products	260	298
Renewable diesel feedstocks and products	46	52
Materials and supplies	274	264
Inventories	\$ 7,013	\$ 6,532

As of December 31, 2019 and 2018, the replacement cost (market value) of LIFO inventories exceeded their LIFO carrying amounts by \$2.5 billion and \$1.5 billion, respectively. Our non-LIFO inventories accounted for \$1.4 billion and \$1.1 billion of our total inventories as of December 31, 2019 and 2018, respectively.

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

**5. LEASES**

***General***

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

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

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

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

***Lease Costs and Other Supplemental Information***

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

	Year Ended December 31, 2019							
	Pipelines, Terminals, and Tanks	Transportation		Feedstock Processing Equipment	Energy and Gases	Real Estate	Other	Total
		Marine	Rail					
Finance lease cost:								
Amortization of ROU assets	\$ 44	\$ —	\$ —	\$ 7	\$ 3	\$ —	\$ —	\$ 54
Interest on lease liabilities	47	—	—	1	2	—	—	50
Operating lease cost	182	145	52	20	9	27	4	439
Variable lease cost	66	35	—	1	—	1	—	103
Short-term lease cost	9	53	—	29	—	—	—	91
Sublease income	—	(27)	—	—	—	(3)	—	(30)
Total lease cost	<u>\$ 348</u>	<u>\$ 206</u>	<u>\$ 52</u>	<u>\$ 58</u>	<u>\$ 14</u>	<u>\$ 25</u>	<u>\$ 4</u>	<u>\$ 707</u>

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

	Year Ended December 31,	
	2018	2017
Minimum rental expense	\$ 515	\$ 691
Contingent rental expense	19	21
Total rental expense	534	712
Less: Sublease rental income	31	54
Rental expense, net of sublease rental income	<u>\$ 503</u>	<u>\$ 658</u>

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

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

	<b>December 31, 2019</b>	
	<b>Operating Leases</b>	<b>Finance Leases</b>
<b>Supplemental balance sheet information</b>		
ROU assets, net reflected in the following balance sheet line items:		
Property, plant, and equipment, net	\$ —	\$ 790
Deferred charges and other assets, net	1,329	—
Total ROU assets, net	<u>\$ 1,329</u>	<u>\$ 790</u>
Current lease liabilities reflected in the following balance sheet line items:		
Current portion of debt and finance lease obligations	\$ —	\$ 41
Accrued expenses	331	—
Noncurrent lease liabilities reflected in the following balance sheet line items:		
Debt and finance lease obligations, less current portion	—	750
Other long-term liabilities	959	—
Total lease liabilities	<u>\$ 1,290</u>	<u>\$ 791</u>
<b>Other supplemental information</b>		
Weighted-average remaining lease term	7.7 years	19.7 years
Weighted-average discount rate	4.9%	5.2%

Supplemental cash flow information related to our operating and finance leases is presented in Note 18.

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

***Maturity Analysis***

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

	<b>December 31, 2019</b>		<b>December 31, 2018</b>	
	<b>Operating Leases</b>	<b>Finance Leases</b>	<b>Operating Leases</b>	<b>Capital Leases</b>
2019	n/a	n/a	\$ 359	\$ 69
2020	\$ 376	\$ 88	245	65
2021	250	86	178	62
2022	194	87	146	64
2023	160	91	123	65
2024	125	82	n/a	n/a
Thereafter	498	1,011	514	957
Total undiscounted lease payments	1,603	1,445	\$ 1,565	1,282
Less: Amount associated with discounting	313	654		676
Total lease liabilities	<u>\$ 1,290</u>	<u>\$ 791</u>		<u>\$ 606</u>

***Future Lease Commencement***

As described and defined in Note 10, we have a terminaling agreement with MVP to utilize certain assets at the MVP Terminal upon completion of construction, which is expected to occur during the first quarter of 2020. We expect to recognize a finance lease ROU asset and related liability of approximately \$1.5 billion in 2020 in connection with this agreement.

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

**6. PROPERTY, PLANT, AND EQUIPMENT**

Major classes of property, plant, and equipment, including assets held under finance leases, consisted of the following (in millions):

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Land	\$ 476	\$ 416
Crude oil processing facilities	32,047	30,721
Transportation and terminaling facilities	5,179	4,935
Grain processing equipment	1,201	1,212
Administrative buildings	1,015	953
Finance lease ROU assets (see Note 5)	944	711
Other	1,701	1,565
Construction in progress	1,731	1,960
Property, plant, and equipment, at cost	44,294	42,473
Accumulated depreciation	(15,030)	(13,625)
Property, plant, and equipment, net	<u>\$ 29,264</u>	<u>\$ 28,848</u>

Capital lease assets, as determined in accordance with Topic 840, are presented as “Finance lease ROU assets” as of December 31, 2018. Effective January 1, 2019, in connection with our adoption of Topic 842, these assets are considered finance lease ROU assets and are presented as “Finance lease ROU assets.” As further described in Note 5, our finance lease ROU assets arise from leasing arrangements for the right to use various classes of underlying assets including (i) pipelines, terminals, and tanks, (ii) marine and rail transportation, and (iii) feedstock processing equipment.

Accumulated amortization on the assets presented as “Finance lease ROU assets” was \$155 million and \$106 million as of December 31, 2019 and 2018, respectively.

Depreciation expense for the years ended December 31, 2019, 2018, and 2017 was \$1.5 billion, \$1.4 billion, and \$1.3 billion, respectively.



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

**7. DEFERRED CHARGES AND OTHER ASSETS**

“Deferred charges and other assets, net” consisted of the following (in millions):

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Deferred turnaround and catalyst costs, net	\$ 1,778	\$ 1,749
Operating lease ROU assets, net (see Note 5)	1,329	—
Investments in unconsolidated joint ventures	942	542
Income taxes receivable	525	343
Intangible assets, net	283	307
Goodwill	260	260
Other	514	431
Deferred charges and other assets, net	<u>\$ 5,631</u>	<u>\$ 3,632</u>

Amortization expense for deferred turnaround and catalyst costs and intangible assets was \$759 million, \$668 million, and \$650 million for the years ended December 31, 2019, 2018, and 2017, respectively.

**8. ACCRUED EXPENSES AND OTHER LONG-TERM LIABILITIES**

Accrued expenses and other long-term liabilities consisted of the following (in millions):

	<b>Accrued Expenses</b>		<b>Other Long-Term Liabilities</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Operating lease liabilities (see Note 5)	\$ 331	\$ —	\$ 959	\$ —
Liability for unrecognized tax benefits (see Note 15)	—	—	954	721
Defined benefit plan liabilities (see Note 13)	37	43	834	654
Repatriation tax liability (see Note 15) (a)	—	—	508	603
Environmental liabilities	27	29	319	327
Wage and other employee-related liabilities	292	302	121	109
Accrued interest expense	83	93	—	—
Contract liabilities from contracts with customers (see Note 17)	55	31	—	—
Environmental credit obligations (see Note 19)	31	34	—	—
Other accrued liabilities	93	98	192	453
Accrued expenses and other long-term liabilities	<u>\$ 949</u>	<u>\$ 630</u>	<u>\$ 3,887</u>	<u>\$ 2,867</u>

(a) The current portion of repatriation tax liability is included in income taxes payable. As of December 31, 2019, the current portion of repatriation tax liability was \$54 million. There was no current portion of repatriation tax liability as of December 31, 2018.

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

**9. DEBT AND FINANCE LEASE OBLIGATIONS**

Debt, at stated values, and finance lease obligations consisted of the following (in millions):

	<b>Final Maturity</b>	<b>December 31,</b>	
		<b>2019</b>	<b>2018</b>
<b>Credit facilities:</b>			
Valero Revolver	2024	\$ —	\$ —
IEnova Revolver	2028	348	109
Canadian Revolver	2020	—	—
Accounts receivable sales facility	2020	100	100
<b>Public debt:</b>			
<b>Valero Senior Notes</b>			
6.625%	2037	1,500	1,500
3.4%	2026	1,250	1,250
4.0%	2029	1,000	—
6.125%	2020	—	850
4.35%	2028	750	750
7.5%	2032	750	750
4.9%	2045	650	650
3.65%	2025	600	600
10.5%	2039	250	250
8.75%	2030	200	200
7.45%	2097	100	100
6.75%	2037	24	24
<b>VLP Senior Notes</b>			
4.375%	2026	500	500
4.5%	2028	500	500
Gulf Opportunity Zone Revenue Bonds, Series 2010, 4.0%	2040	300	300
Debenture, 7.65%	2026	100	100
Other debt	Various	47	50
Net unamortized debt issuance costs and other		(88)	(80)
<b>Total debt</b>		<b>8,881</b>	<b>8,503</b>
Finance lease obligations (see Note 5)		791	606
<b>Total debt and finance lease obligations</b>		<b>9,672</b>	<b>9,109</b>
Less: Current portion		494	238
<b>Debt and finance lease obligations, less current portion</b>		<b>\$ 9,178</b>	<b>\$ 8,871</b>

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

***Credit Facilities***

**Valero Revolver**

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

Outstanding borrowings under the Valero Revolver bear interest, at our option, at either (i) the adjusted LIBO rate (as defined in the Valero Revolver) for the applicable interest period in effect from time to time plus the applicable margin or (ii) the alternate base rate (as defined in the Valero Revolver) plus the applicable margin. The Valero Revolver also requires payments for customary fees, including facility fees, letter of credit participation fees, and administrative agent fees. The interest rate and facility fees under the Valero Revolver are subject to adjustment based upon the credit ratings assigned to our senior unsecured debt.

We had no borrowings or repayments under the Valero Revolver during the years ended December 31, 2019, 2018, and 2017.

**VLP Revolver**

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

During the year ended December 31, 2018, VLP repaid the outstanding balance of \$410 million on the VLP Revolver using proceeds from its public offering of \$500 million 4.5 percent Senior Notes as described in “*Public Debt*” below. During the year ended December 31, 2017, VLP borrowed \$380 million under the revolver and made no repayments.

**IEnova Revolver**

In February 2018, Central Mexico Terminals (as described in Note 12) entered into a combined \$340 million unsecured revolving credit facility (IEnova Revolver) with IEnova (defined in Note 12) that matures in February 2028. In November 2019, the IEnova Revolver was increased to \$491 million. IEnova may terminate this revolver at any time and demand repayment of all outstanding amounts; therefore, all outstanding borrowings are reflected in current portion of debt. The IEnova Revolver is available only to the operations of Central Mexico Terminals, and the creditors of Central Mexico Terminals do not have recourse against us.

Outstanding borrowings under this revolver bear interest at the three-month LIBO rate for the applicable interest period in effect from time to time plus the applicable margin. The interest rate under this revolver is subject to adjustment, with agreement by both parties, based upon changes in market conditions. As of December 31, 2019 and 2018, the variable rate was 5.749 percent and 6.046 percent, respectively.

During the year ended December 31, 2019 and 2018, Central Mexico Terminals borrowed \$239 million and \$109 million, respectively, and had no repayments under this revolver.

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

**Canadian Revolver**

In November 2019, one of our Canadian subsidiaries amended its committed revolving credit facility (the Canadian Revolver) of C\$150 million, under which it may borrow and obtain letters of credit, to extend the maturity date from November 2019 to November 2020.

We had no borrowings or repayments under this revolver during the years ended December 31, 2019, 2018, and 2017.

**Accounts Receivable Sales Facility**

We have an accounts receivable sales facility with a group of third-party entities and financial institutions to sell up to \$1.3 billion of eligible trade receivables on a revolving basis. In July 2019, we amended our agreement to extend the maturity date to July 2020. Under this program, one of our marketing subsidiaries (Valero Marketing) sells eligible receivables, without recourse, to another of our subsidiaries (Valero Capital), whereupon the receivables are no longer owned by Valero Marketing. Valero Capital, in turn, sells an undivided percentage ownership interest in the eligible receivables, without recourse, to the third-party entities and financial institutions. To the extent that Valero Capital retains an ownership interest in the receivables it has purchased from Valero Marketing, such interest is included in our financial statements solely as a result of the consolidation of the financial statements of Valero Capital with those of Valero Energy Corporation; the receivables are not available to satisfy the claims of the creditors of Valero Marketing or Valero Energy Corporation.

As of December 31, 2019 and 2018, \$2.2 billion and \$1.8 billion, respectively, of our accounts receivable composed the designated pool of accounts receivable included in the program. All amounts outstanding under the accounts receivable sales facility are reflected as debt on our balance sheets and proceeds and repayments are reflected as cash flows from financing activities on the statements of cash flows. As of December 31, 2019 and 2018, the variable interest rate on the accounts receivable sales facility was 2.3866 percent and 3.0618 percent, respectively. During the year ended December 31, 2019, we sold and repaid \$900 million of eligible receivables under the accounts receivable sales facility. During the years ended December 31, 2018 and 2017, we had no proceeds from or repayments under the accounts receivable sales facility.

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

**Summary of Credit Facilities**

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

			December 31, 2019			
	Facility Amount	Maturity Date	Outstanding Borrowings	Letters of Credit Issued (a)	Availability	
Committed facilities:						
Valero Revolver	\$ 4,000	March 2024	\$ —	\$ 34	\$ 3,966	
Canadian Revolver	C\$ 150	November 2020	C\$ —	C\$ 5	C\$ 145	
Accounts receivable sales facility	\$ 1,300	July 2020	\$ 100	n/a	\$ 1,200	
Letter of credit facility (b)	\$ 50	November 2020	n/a	\$ —	\$ 50	
Committed facility of VIE (c):						
IEnova Revolver	\$ 491	February 2028	\$ 348	n/a	\$ 143	
Uncommitted facilities:						
Letter of credit facilities	n/a	n/a	n/a	\$ 121	n/a	

(a) Letters of credit issued as of December 31, 2019 expire at various times in 2020 through 2021.

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

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

We are charged letter of credit issuance fees under our various uncommitted short-term bank credit facilities. These uncommitted credit facilities have no commitment fees or compensating balance requirements.

**Public Debt**

During the year ended December 31, 2019, the following activity occurred:

- We issued \$1.0 billion of 4.00 percent Senior Notes due April 1, 2029 (4.00 percent Senior Notes). Proceeds from this debt issuance totaled \$992 million before deducting the underwriting discount and other debt issuance costs. The proceeds were used to redeem our 6.125 percent Senior Notes due February 1, 2020 (6.125 percent Senior Notes) for \$871 million, or 102.48 percent of stated value, which includes an early redemption fee of \$21 million that is reflected in “other income, net” in our statement of income for the year ended December 31, 2019.
- In connection with the completion of the Merger Transaction as described in Note 2, Valero entered into a guarantee agreement to fully and unconditionally guarantee the prompt payment, when due, of any amount owed to the holders of VLP’s 4.375 percent Senior Notes due December 15, 2026 and 4.5 percent Senior Notes due March 15, 2028. See Note 21 for condensed consolidating financial statements.

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

During the year ended December 31, 2018, the following activity occurred:

- We issued \$750 million of 4.35 percent Senior Notes due June 1, 2028. Proceeds from this debt issuance totaled \$749 million before deducting the underwriting discount and other debt issuance costs. The proceeds were used to redeem our 9.375 percent Senior Notes due March 15, 2019 for \$787 million, or 104.9 percent of stated value, which includes an early redemption fee of \$37 million that is reflected in “other income, net” in our statement of income for the year ended December 31, 2018.
- VLP issued \$500 million of 4.5 percent Senior Notes due March 15, 2028. Proceeds from this debt issuance totaled \$498 million before deducting the underwriting discount and other debt issuance costs. The proceeds were available only to the operations of VLP and were used to repay the outstanding balance of \$410 million on the VLP Revolver and \$85 million on its notes payable to us, which is eliminated in consolidation.

During the year ended December 31, 2017, there was no issuance or redemption activity related to our public debt.

***Other Debt***

During the year ended December 31, 2018, we retired \$137 million of debt assumed in connection with the Peru Acquisition with available cash on hand.

***Other Disclosures***

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

	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Interest and debt expense	\$ 544	\$ 557	\$ 539
Less: Capitalized interest	90	87	71
Interest and debt expense, net of capitalized interest	\$ 454	\$ 470	\$ 468

Our credit facilities and other debt arrangements contain various customary restrictive covenants, including cross-default and cross-acceleration clauses.

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

Principal maturities for our debt obligations as of December 31, 2019 were as follows (in millions):

2020 (a)	\$	453
2021		17
2022		6
2023		19
2024		—
Thereafter		8,474
Net unamortized debt issuance costs and other		(88)
Total debt	\$	8,881

(a) As of December 31, 2019, our debt obligations due in 2020 include \$348 million associated with borrowings under the IEnova Revolver.

## 10. COMMITMENTS AND CONTINGENCIES

### *Purchase Obligations*

We have various purchase obligations under certain crude oil and other feedstock supply arrangements, industrial gas supply arrangements (such as hydrogen supply arrangements), natural gas supply arrangements, and various throughput, transportation and terminaling agreements. We enter into these contracts to ensure an adequate supply of feedstock and utilities and adequate storage capacity to operate our refineries and ethanol plants. Substantially all of our purchase obligations are based on market prices or adjustments based on market indices. Certain of these purchase obligations include fixed or minimum volume requirements, while others are based on our usage requirements. None of these obligations is associated with suppliers' financing arrangements. These purchase obligations are not reflected as liabilities.

### *Contractual Capital Commitments*

#### **MVP Terminal**

We have a 50 percent membership interest in MVP Terminalling, LLC (MVP), a Delaware limited liability company formed in September 2017 with a subsidiary of Magellan Midstream Partners LP (Magellan), to construct, own, and operate the Magellan Valero Pasadena marine terminal (MVP Terminal) located adjacent to the Houston Ship Channel in Pasadena, Texas. The MVP Terminal contains (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 of phases one and two of the project began in 2017 with a total cost of \$840 million, of which we have committed to contribute 50 percent (\$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. Since inception, we have contributed \$404 million to MVP, of which \$157 million was contributed during the year ended December 31, 2019.

Concurrent with the formation of MVP, we entered into a terminaling agreement with MVP to utilize the MVP Terminal upon completion of the majority of phase two, which is expected to occur in the first quarter

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

of 2020. The terminaling agreement has an initial term of 12 years with two five-year automatic renewals, and year-to-year renewals thereafter.

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

On January 1, 2019, as a result of our adoption of Topic 842, we derecognized the asset and liability related to MVP discussed above and recorded our equity investment in MVP of \$247 million, which is included in “deferred charges and other assets, net.” The amounts derecognized are noncash investing and financing items, respectively. As of December 31, 2019, the carrying value of our equity investment in MVP was \$401 million.

**Central Texas Pipeline**

We committed to a 40 percent undivided interest in a project with a subsidiary of Magellan to jointly build a 135-mile, 20-inch refined petroleum products pipeline with a capacity of up to 150,000 barrels per day from Houston to Hearne, Texas. The pipeline was placed in service in the third quarter of 2019. The cost of our 40 percent undivided interest in the pipeline was \$160 million, of which \$80 million was spent during the year ended December 31, 2019.

***Self-Insurance***

We are self-insured for certain medical and dental, workers’ compensation, automobile liability, general liability, and property liability claims up to applicable retention limits. Liabilities are accrued for self-insured claims, or when estimated losses exceed coverage limits, and when sufficient information is available to reasonably estimate the amount of the loss. These liabilities are included in accrued expenses and other long-term liabilities.



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

## 11. EQUITY

### *Share Activity*

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

	<b>Common Stock</b>	<b>Treasury Stock</b>
<b>Balance as of December 31, 2016</b>	673	(222)
Transactions in connection with stock-based compensation plans	—	1
Stock purchases under purchase programs	—	(19)
<b>Balance as of December 31, 2017</b>	673	(240)
Stock purchases under purchase programs	—	(16)
<b>Balance as of December 31, 2018</b>	673	(256)
Transactions in connection with stock-based compensation plans	—	1
Stock purchases under purchase program	—	(9)
<b>Balance as of December 31, 2019</b>	673	(264)

### *Preferred Stock*

We have 20 million shares of preferred stock authorized with a par value of \$0.01 per share. No shares of preferred stock were outstanding as of December 31, 2019 or 2018.

### *Treasury Stock*

We purchase shares of our common stock as authorized under our common stock purchase program (described below) and to meet our obligations under employee stock-based compensation plans.

On July 13, 2015, our board of directors authorized us to purchase \$2.5 billion of our outstanding common stock with no expiration date, and we completed that program during 2017. On September 21, 2016, our board of directors authorized our purchase of up to an additional \$2.5 billion with no expiration date, and we completed that program during 2018. On January 23, 2018, our board of directors authorized our purchase of up to an additional \$2.5 billion (the 2018 Program) with no expiration date. During the years ended December 31, 2019, 2018, and 2017, we purchased \$752 million, \$1.5 billion, and \$1.3 billion, respectively, of our common stock under our programs. As of December 31, 2019, we have approval under the 2018 Program to purchase approximately \$1.5 billion of our common stock.

### *Common Stock Dividends*

On January 23, 2020, our board of directors declared a quarterly cash dividend of \$0.98 per common share payable on March 4, 2020 to holders of record at the close of business on February 12, 2020.

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

***Income Tax Effects Related to Components of Other Comprehensive Income (Loss)***

The tax effects allocated to each component of other comprehensive income (loss) were as follows (in millions):

	Before-Tax Amount	Tax Expense (Benefit)	Net Amount
<b>Year ended December 31, 2019</b>			
Foreign currency translation adjustment	\$ 349	\$ —	\$ 349
Pension and other postretirement benefits:			
Loss arising during the year related to:			
Net actuarial loss	(245)	(54)	(191)
Prior service cost	(3)	(1)	(2)
Miscellaneous loss	—	4	(4)
Amounts reclassified into income related to:			
Net actuarial loss	38	9	29
Prior service credit	(28)	(6)	(22)
Curtailment and settlement loss	4	1	3
Net loss on pension and other postretirement benefits	(234)	(47)	(187)
Derivative instruments designated and qualifying as cash flow hedges:			
Net loss arising during the year	(6)	(1)	(5)
Net gain reclassified into income	(2)	—	(2)
Net loss on cash flow hedges	(8)	(1)	(7)
Other comprehensive income	\$ 107	\$ (48)	\$ 155

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

	Before-Tax Amount	Tax Expense (Benefit)	Net Amount
<b>Year ended December 31, 2018</b>			
Foreign currency translation adjustment	\$ (517)	\$ —	\$ (517)
Pension and other postretirement benefits:			
Gain arising during the year related to:			
Net actuarial gain	1	—	1
Prior service credit	7	1	6
Amounts reclassified into income related to:			
Net actuarial loss	63	14	49
Prior service credit	(29)	(7)	(22)
Curtailment and settlement loss	7	2	5
Net gain on pension and other postretirement benefits	49	10	39
Other comprehensive loss	\$ (468)	\$ 10	\$ (478)
<b>Year ended December 31, 2017</b>			
Foreign currency translation adjustment	\$ 514	\$ —	\$ 514
Pension and other postretirement benefits:			
Loss arising during the year related to:			
Net actuarial loss	(79)	(29)	(50)
Prior service cost	(4)	(1)	(3)
Miscellaneous loss	—	3	(3)
Amounts reclassified into income related to:			
Net actuarial loss	50	18	32
Prior service credit	(36)	(13)	(23)
Curtailment and settlement loss	4	1	3
Net loss on pension and other postretirement benefits	(65)	(21)	(44)
Other comprehensive income	\$ 449	\$ (21)	\$ 470

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

***Accumulated Other Comprehensive Loss***

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

	Foreign Currency Translation Adjustment	Defined Benefit Plans Items	Losses on Cash Flow Hedges	Total
<b>Balance as of December 31, 2016</b>	\$ (1,021)	\$ (389)	\$ —	\$ (1,410)
Other comprehensive income (loss) before reclassifications	514	(56)	—	458
Amounts reclassified from accumulated other comprehensive loss	—	12	—	12
Other comprehensive income (loss)	514	(44)	—	470
<b>Balance as of December 31, 2017</b>	(507)	(433)	—	(940)
Other comprehensive income (loss) before reclassifications	(515)	7	—	(508)
Amounts reclassified from accumulated other comprehensive loss	—	32	—	32
Other comprehensive income (loss)	(515)	39	—	(476)
Reclassification of stranded income tax effects	—	(91)	—	(91)
<b>Balance as of December 31, 2018</b>	(1,022)	(485)	—	(1,507)
Other comprehensive income (loss) before reclassifications	346	(197)	(2)	147
Amounts reclassified from accumulated other comprehensive loss	—	10	(1)	9
Other comprehensive income (loss)	346	(187)	(3)	156
<b>Balance as of December 31, 2019</b>	\$ (676)	\$ (672)	\$ (3)	\$ (1,351)

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

Gains (losses) reclassified out of accumulated other comprehensive loss and into net income were as follows (in millions):

Details about Accumulated Other Comprehensive Loss Components	Year Ended December 31,			Affected Line Item in the Statement of Income
	2019	2018	2017	
Amortization of items related to defined benefit pension plans:				
Net actuarial loss	\$ (38)	\$ (63)	\$ (50)	(a) Other income, net
Prior service credit	28	29	36	(a) Other income, net
Curtailment and settlement	(4)	(7)	(4)	(a) Other income, net
	(14)	(41)	(18)	Total before tax
	4	9	6	Tax benefit
	<u>\$ (10)</u>	<u>\$ (32)</u>	<u>\$ (12)</u>	Net of tax
Gains on cash flow hedges:				
Commodity contracts	\$ 2	\$ —	\$ —	Revenues
	<u>\$ 2</u>	<u>\$ —</u>	<u>\$ —</u>	Net of tax
Total reclassifications for the year	<u>\$ (8)</u>	<u>\$ (32)</u>	<u>\$ (12)</u>	Net of tax

(a) These accumulated other comprehensive loss components are included in the computation of net periodic benefit cost (credit), as discussed in Note 13.

## 12. 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 (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (ii) 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.

The following discussion summarizes our involvement with our VIEs:

- DGD is a joint venture with a subsidiary of Darling Ingredients Inc. that owns and operates a plant that processes animal fats, used cooking oils, and other vegetable oils into renewable diesel. The plant is located in Norco, Louisiana next to our St. Charles Refinery. Our significant agreements with DGD include an operations agreement that outlines our responsibilities as operator of the plant and a marketing agreement.

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

As operator, we operate the plant and perform certain day-to-day operating and management functions for DGD as an independent contractor. The operations agreement provides us (as operator) with certain power to direct the activities that most significantly impact DGD's economic performance. Because this agreement conveys such power to us and is separate from our ownership rights, we determined that DGD was a VIE. For this reason and because we hold a 50 percent ownership interest that provides us with significant economic rights and obligations, we determined that we are the primary beneficiary of DGD. DGD has risk associated with its operations because it generates revenues from third-party customers.

- Central Mexico Terminals is a collective group of three subsidiaries of Infraestructura Energetica Nova, S.A.B. de C.V. (IEnova), a Mexican company and subsidiary of Sempra Energy, a U.S. public company. We have terminaling agreements with Central Mexico Terminals that represent variable interests because we have determined them to be finance leases due to our exclusive use of the terminals. Although we do not have an ownership interest in the entities that own each of the three terminals, the finance leases convey to us (i) the power to direct the activities that most significantly impact the economic performance of all three terminals and (ii) the ability to influence the benefits received or the losses incurred by the terminals because of our use of the terminals. As a result, we determined each of the entities was a VIE and that we are the primary beneficiary of each. Substantially all of Central Mexico Terminals' revenues will be derived from us; therefore, there is limited risk to us associated with Central Mexico Terminals' operations.
- We also have financial interests in other entities that have been determined to be VIEs because the entities' contractual arrangements transfer the power to us to direct the activities that most significantly impact their economic performance or reduce the exposure to operational variability and risk of loss created by the entity that otherwise would be held exclusively by the equity owners. Furthermore, we determined that we are the primary beneficiary of these VIEs because (i) certain contractual arrangements (exclusive of our ownership rights) provide us with the power to direct the activities that most significantly impact the economic performance of these entities and/or (ii) our 50 percent ownership interests provide us with significant economic rights and obligations.

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

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

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).

<b>December 31, 2019</b>					
	<b>DGD</b>	<b>Central Mexico Terminals</b>	<b>Other</b>	<b>Total</b>	
<b>Assets</b>					
Cash and cash equivalents	\$ 85	\$ —	\$ 25	\$ 110	
Other current assets	567	33	89	689	
Property, plant, and equipment, net	706	381	105	1,192	
<b>Liabilities</b>					
Current liabilities, including current portion of debt and finance lease obligations	\$ 66	\$ 409	\$ 8	\$ 483	
Debt and finance lease obligations, less current portion	—	—	31	31	

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

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

**Non-Consolidated VIEs**

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

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

**13. EMPLOYEE BENEFIT PLANS**

***Defined Benefit Plans***

We have defined benefit pension plans, some of which are subject to collective bargaining agreements, that cover most of our employees. These plans provide eligible employees with retirement income based primarily on years of service and compensation during specific periods under final average pay and cash balance formulas. We fund our pension plans as required by local regulations. In the U.S., all qualified pension plans are subject to the Employee Retirement Income Security Act's minimum funding standard. We typically do not fund or fully fund U.S. nonqualified and certain international pension plans that are not subject to funding requirements because contributions to these pension plans may be less economic and investment returns may be less attractive than our other investment alternatives.

We also provide health care and life insurance benefits for certain retired employees through our postretirement benefit plans. Most of our employees become eligible for these benefits if, while still working for us, they reach normal retirement age or take early retirement. These plans are unfunded, and retired employees share the cost with us. Individuals who became our employees as a result of an acquisition became eligible for postretirement benefits under our plans as determined by the terms of the relevant acquisition agreement.



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

The changes in benefit obligation related to all of our defined benefit plans, the changes in fair value of plan assets<sup>(a)</sup>, and the funded status of our defined benefit plans as of and for the years ended were as follows (in millions):

	<b>Pension Plans</b>		<b>Other Postretirement Benefit Plans</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
<b>Changes in benefit obligation</b>				
Benefit obligation as of beginning of year	\$ 2,639	\$ 2,926	\$ 292	\$ 306
Service cost	119	133	5	6
Interest cost	98	91	11	10
Participant contributions	—	—	11	10
Benefits paid	(154)	(207)	(29)	(28)
Actuarial (gain) loss	528	(285)	41	(9)
Other	9	(19)	5	(3)
Benefit obligation as of end of year	<u>\$ 3,239</u>	<u>\$ 2,639</u>	<u>\$ 336</u>	<u>\$ 292</u>
<b>Changes in plan assets (a)</b>				
Fair value of plan assets as of beginning of year	\$ 2,236	\$ 2,428	\$ —	\$ —
Actual return on plan assets	490	(130)	—	—
Valero contributions	128	156	18	18
Participant contributions	—	—	11	10
Benefits paid	(154)	(207)	(29)	(28)
Other	9	(11)	—	—
Fair value of plan assets as of end of year	<u>\$ 2,709</u>	<u>\$ 2,236</u>	<u>\$ —</u>	<u>\$ —</u>
<b>Reconciliation of funded status (a)</b>				
Fair value of plan assets as of end of year	\$ 2,709	\$ 2,236	\$ —	\$ —
Less: Benefit obligation as of end of year	3,239	2,639	336	292
Funded status as of end of year	<u>\$ (530)</u>	<u>\$ (403)</u>	<u>\$ (336)</u>	<u>\$ (292)</u>
Accumulated benefit obligation	\$ 3,039	\$ 2,492	n/a	n/a

(a) Plan assets include only the assets associated with pension plans subject to legal minimum funding standards. Plan assets associated with U.S. nonqualified pension plans are not included here because they are not protected from our creditors and therefore cannot be reflected as a reduction from our obligations under the pension plans. As a result, the reconciliation of funded status does not reflect the effect of plan assets that exist for all of our defined benefit plans. See Note 19 for the assets associated with certain U.S. nonqualified pension plans.

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

The actuarial loss for the year ended December 31, 2019 primarily resulted from a decrease in the discount rates used to determine our benefit obligations for our pension plans from 4.25 percent in 2018 to 3.14 percent in 2019. The actuarial gain for the year ended December 31, 2018 primarily resulted from an increase in the discount rates used to determine our benefit obligations for our pension plans from 3.58 percent in 2017 to 4.25 percent in 2018.

The fair value of our plan assets as of December 31, 2019 was favorably impacted by the return on plan assets resulting primarily from an improvement in equity market prices for the year. The fair value of our plan assets as of December 31, 2018 was unfavorably impacted by the negative return on plan assets resulting primarily from a significant decline in equity market prices for the year.

Amounts recognized in our balance sheet for our pension and other postretirement benefits plans include (in millions):

	<b>Pension Plans</b>		<b>Other Postretirement Benefit Plans</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Deferred charges and other assets, net	\$ 5	\$ 2	\$ —	\$ —
Accrued expenses	(17)	(22)	(20)	(21)
Other long-term liabilities	(518)	(383)	(316)	(271)
	<u>\$ (530)</u>	<u>\$ (403)</u>	<u>\$ (336)</u>	<u>\$ (292)</u>

The following table presents information for our pension plans with projected benefit obligations in excess of plan assets (in millions).

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Projected benefit obligation	\$ 3,182	\$ 2,564
Fair value of plan assets	2,647	2,160

The following table presents information for our pension plans with accumulated benefit obligations in excess of plan assets (in millions).

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Accumulated benefit obligation	\$ 2,760	\$ 2,253
Fair value of plan assets	2,402	1,974

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

Benefit payments that we expect to pay, including amounts related to expected future services that we expect to receive, are as follows for the years ending December 31 (in millions):

	<b>Pension Benefits</b>	<b>Other Postretirement Benefits</b>
2020	\$ 179	\$ 21
2021	219	20
2022	190	20
2023	204	19
2024	205	19
2025-2029	1,105	88

We plan to contribute approximately \$140 million to our pension plans and \$21 million to our other postretirement benefit plans during 2020.

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

	<b>Pension Plans</b>			<b>Other Postretirement Benefit Plans</b>		
	<b>Year Ended December 31,</b>			<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Service cost	\$ 119	\$ 133	\$ 123	\$ 5	\$ 6	\$ 6
Interest cost	98	91	86	11	10	10
Expected return on plan assets	(166)	(163)	(150)	—	—	—
Amortization of:						
Net actuarial (gain) loss	41	65	53	(3)	(2)	(3)
Prior service credit	(19)	(18)	(20)	(9)	(11)	(16)
Special charges	4	7	4	1	—	—
Net periodic benefit cost (credit)	<u>\$ 77</u>	<u>\$ 115</u>	<u>\$ 96</u>	<u>\$ 5</u>	<u>\$ 3</u>	<u>\$ (3)</u>

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

Amortization of prior service credit shown in the preceding table was based on a straight-line amortization of the cost over the average remaining service period of employees expected to receive benefits under each respective plan. Amortization of the net actuarial (gain) loss shown in the preceding table was based on the straight-line amortization of the excess of the unrecognized (gain) loss over 10 percent of the greater of the projected benefit obligation or market-related value of plan assets (smoothed asset value) over the average remaining service period of active employees expected to receive benefits under each respective plan.

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

Pre-tax amounts recognized in other comprehensive income (loss) were as follows (in millions):

	<b>Pension Plans</b>			<b>Other Postretirement Benefit Plans</b>		
	<b>Year Ended December 31,</b>			<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Net gain (loss) arising during the year:						
Net actuarial gain (loss)	\$ (204)	\$ (8)	\$ (73)	\$ (41)	\$ 9	\$ (6)
Prior service (cost) credit	—	7	(4)	(3)	—	—
Net (gain) loss reclassified into income:						
Net actuarial (gain) loss	41	65	53	(3)	(2)	(3)
Prior service credit	(19)	(18)	(20)	(9)	(11)	(16)
Curtailment and settlement loss	4	7	4	—	—	—
Total changes in other comprehensive income (loss)	<u>\$ (178)</u>	<u>\$ 53</u>	<u>\$ (40)</u>	<u>\$ (56)</u>	<u>\$ (4)</u>	<u>\$ (25)</u>

The pre-tax amounts in accumulated other comprehensive loss that have not yet been recognized as components of net periodic benefit cost (credit) were as follows (in millions):

	<b>Pension Plans</b>		<b>Other Postretirement Benefit Plans</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Net actuarial (gain) loss	\$ 988	\$ 828	\$ (20)	\$ (64)
Prior service credit	(90)	(108)	(19)	(31)
Total	<u>\$ 898</u>	<u>\$ 720</u>	<u>\$ (39)</u>	<u>\$ (95)</u>

The weighted-average assumptions used to determine the benefit obligations were as follows:

	<b>Pension Plans</b>		<b>Other Postretirement Benefit Plans</b>	
	<b>December 31,</b>		<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>	<b>2019</b>	<b>2018</b>
Discount rate	3.14%	4.25%	3.32%	4.40%
Rate of compensation increase	3.75%	3.78%	n/a	n/a
Interest crediting rate for cash balance plans	3.03%	3.04%	n/a	n/a

The discount rate assumption used to determine the benefit obligations as of December 31, 2019 and 2018 for the majority of our pension plans and other postretirement benefit plans was based on the Aon AA Only Above Median yield curve and considered the timing of the projected cash outflows under our plans. This curve was designed by Aon to provide a means for plan sponsors to value the liabilities of their pension plans

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

or postretirement benefit plans. It is a hypothetical double-A yield curve represented by a series of annualized individual discount rates with maturities from one-half year to 99 years. Each bond issue underlying the curve is required to have an average rating of double-A when averaging all available ratings by Moody's Investors Service, Standard & Poor's Ratings Services, and Fitch Ratings. Only the bonds representing the 50 percent highest yielding issuances among those with average ratings of double-A are included in this yield curve.

We based our discount rate assumption on the Aon AA Only Above Median yield curve because we believe it is representative of the types of bonds we would use to settle our pension and other postretirement benefit plan liabilities as of those dates. We believe that the yields associated with the bonds used to develop this yield curve reflect the current level of interest rates.

The weighted-average assumptions used to determine the net periodic benefit cost were as follows:

	<b>Pension Plans</b>			<b>Other Postretirement Benefit Plans</b>		
	<b>Year Ended December 31,</b>			<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Discount rate	4.24%	3.59%	4.08%	4.40%	3.72%	4.26%
Expected long-term rate of return on plan assets	7.22%	7.24%	7.29%	n/a	n/a	n/a
Rate of compensation increase	3.78%	3.86%	3.81%	n/a	n/a	n/a
Interest crediting rate for cash balance plans	3.04%	3.04%	3.04%	n/a	n/a	n/a

The assumed health care cost trend rates were as follows:

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Health care cost trend rate assumed for the next year	7.32%	7.29%
Rate to which the cost trend rate was assumed to decline (the ultimate trend rate)	5.00%	5.00%
Year that the rate reaches the ultimate trend rate	2026	2026

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The following tables present the fair values of the assets of our pension plans (in millions) as of December 31, 2019 and 2018 by level of the fair value hierarchy. Assets categorized in Level 1 of the hierarchy are measured at fair value using a market approach based on unadjusted quoted prices from national securities exchanges. Assets categorized in Level 2 of the hierarchy are measured at net asset value in a market that is not active. As previously noted, we do not fund or fully fund U.S. nonqualified and certain international pension plans that are not subject to funding requirements, and we do not fund our other postretirement benefit plans.

	Fair Value Hierarchy			Total as of December 31, 2019
	Level 1	Level 2	Level 3	
Equity securities:				
U.S. companies (a)	\$ 622	\$ —	\$ —	\$ 622
International companies	205	1	—	206
Preferred stock	4	—	—	4
Mutual funds:				
International growth	123	—	—	123
Index funds	90	—	—	90
Corporate debt instruments (a)	—	293	—	293
Government securities:				
U.S. Treasury securities	53	—	—	53
Other government securities	—	148	—	148
Common collective trusts (b)	—	751	—	751
Pooled separate accounts	—	250	—	250
Private funds	—	104	—	104
Insurance contract	—	17	—	17
Interest and dividends receivable	5	—	—	5
Cash and cash equivalents	59	—	—	59
Securities transactions payable, net	(16)	—	—	(16)
Total pension plan assets	\$ 1,145	\$ 1,564	\$ —	\$ 2,709

See notes on page 108.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

	Fair Value Hierarchy			Total as of December 31, 2018
	Level 1	Level 2	Level 3	
Equity securities:				
U.S. companies (a)	\$ 497	\$ —	\$ —	\$ 497
International companies	159	1	—	160
Preferred stock	4	—	—	4
Mutual funds:				
International growth	97	—	—	97
Index funds	76	—	—	76
Corporate debt instruments (a)	—	284	—	284
Government securities:				
U.S. Treasury securities	45	—	—	45
Other government securities	—	138	—	138
Common collective trusts (b)	—	609	—	609
Pooled separate accounts	—	190	—	190
Private funds	—	87	—	87
Insurance contract	—	18	—	18
Interest and dividends receivable	5	—	—	5
Cash and cash equivalents	40	—	—	40
Securities transactions payable, net	(14)	—	—	(14)
Total pension plan assets	\$ 909	\$ 1,327	\$ —	\$ 2,236

(a) This class of securities is held in a wide range of industrial sectors.

(b) This class includes primarily investments in approximately 75 percent equities and 25 percent bonds as of December 31, 2019. As of December 31, 2018, this class included primarily investments in approximately 70 percent equities and 30 percent bonds.

The investment policies and strategies for the assets of our pension plans incorporate a well-diversified approach that is expected to earn long-term returns from capital appreciation and a growing stream of current income. This approach recognizes that assets are exposed to risk and the market value of the pension plans' assets may fluctuate from year to year. Risk tolerance is determined based on our financial ability to withstand risk within the investment program and the willingness to accept return volatility. In line with the investment return objective and risk parameters, the pension plans' mix of assets includes a diversified portfolio of equity and fixed-income investments. Equity securities include international stocks and a blend of U.S. growth and value stocks of various sizes of capitalization. Fixed income securities include bonds and notes issued by the U.S. government and its agencies, corporate bonds, and mortgage-backed securities. The aggregate asset allocation is reviewed on an annual basis. As of December 31, 2019, the target allocations for plan assets under our primary pension plan are 70 percent equity securities and 30 percent fixed income investments.

The expected long-term rate of return on plan assets is based on a forward-looking expected asset return model. This model derives an expected rate of return based on the target asset allocation of a plan's assets.

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

The underlying assumptions regarding expected rates of return for each asset class reflect Aon's best expectations for these asset classes. The model reflects the positive effect of periodic rebalancing among diversified asset classes. We select an expected asset return that is supported by this model.

**Defined Contribution Plans**

We have defined contribution plans that cover most of our employees. Our contributions to these plans are based on employees' compensation and/or a partial match of employee contributions to the plans. Our contributions to these defined contribution plans were \$77 million, \$74 million, and \$70 million for the years ended December 31, 2019, 2018, and 2017, respectively.

**14. STOCK-BASED COMPENSATION**

**Overview**

Under our 2011 Omnibus Stock Incentive Plan (the OSIP), various stock and stock-based awards may be granted to employees and non-employee directors. Awards available under the OSIP include, but are not limited to, (i) restricted stock that vests over a period determined by our compensation committee, (ii) performance awards that vest upon the achievement of an objective performance goal, (iii) options to purchase shares of common stock, (iv) dividend equivalent rights, and (v) stock unit awards. The OSIP was approved by our stockholders on April 28, 2011 and re-approved by our stockholders on May 12, 2016. As of December 31, 2019, 7,740,665 shares of our common stock remained available to be awarded under the OSIP.

We also maintain another stock-based compensation plan under which previously granted equity awards remain outstanding. No additional grants may be awarded under this plan.

The following table reflects activity related to our stock-based compensation arrangements (in millions):

	Year Ended December 31,		
	2019	2018	2017
Stock-based compensation expense:			
Restricted stock	\$ 64	\$ 63	\$ 58
Performance awards	23	22	19
Stock options and other awards	2	1	—
Total stock-based compensation expense	<u>\$ 89</u>	<u>\$ 86</u>	<u>\$ 77</u>
Tax benefit recognized on stock-based compensation expense	\$ 19	\$ 18	\$ 27
Tax benefit realized for tax deductions resulting from exercises and vestings	17	32	44
Effect of tax deductions in excess of recognized stock-based compensation expense	7	20	24



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

The following is a discussion of our significant stock-based compensation arrangement.

***Restricted Stock***

Restricted stock is granted to employees and non-employee directors. Restricted stock granted to employees vests in accordance with individual written agreements between the participants and us, usually in equal annual installments over a period of three years beginning one year after the date of grant. Restricted stock granted to our non-employee directors vests in equal annual installments over a period of three years beginning one year after the date of grant. The fair value of each restricted stock per share is equal to the market price of our common stock. A summary of the status of our restricted stock awards is presented in the following table.

	Number of Shares	Weighted- Average Grant-Date Fair Value Per Share
Nonvested shares as of January 1, 2019	1,176,578	\$ 80.70
Granted	677,482	98.75
Vested	(757,217)	78.54
Forfeited	(4,989)	83.18
Nonvested shares as of December 31, 2019	1,091,854	93.38

As of December 31, 2019, there was \$59 million of unrecognized compensation cost related to outstanding unvested restricted stock awards, which is expected to be recognized over a weighted-average period of approximately two years.

The following table reflects activity related to our restricted stock:

	Year Ended December 31,		
	2019	2018	2017
Weighted-average grant-date fair value per share of restricted stock granted	\$ 98.75	\$ 92.12	\$ 79.32
Fair value of restricted stock vested (in millions)	74	80	71

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

**15. INCOME TAXES**

***Income Statement Components***

Income before income tax expense (benefit) was as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
U.S. operations	\$ 2,496	\$ 3,168	\$ 2,283
International operations	990	1,064	924
Income before income tax expense (benefit)	<u>\$ 3,486</u>	<u>\$ 4,232</u>	<u>\$ 3,207</u>

Statutory income tax rates applicable to the countries in which we operate were as follows:

	Year Ended December 31,		
	2019	2018	2017
U.S.	21%	21%	35%
Canada	15%	15%	15%
U.K.	19%	19%	19%
Ireland	13%	13%	13%
Peru	30%	30%	n/a
Mexico	30%	30%	n/a

The following is a reconciliation of income tax expense (benefit) computed by applying statutory income tax rates as reflected in the preceding table to actual income tax expense (benefit) (in millions):

	U.S.		International		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
<b>Year ended December 31, 2019</b>						
Income tax expense at statutory rates	\$ 524	21.0 %	\$ 147	14.8 %	\$ 671	19.2 %
U.S. state and Canadian provincial tax expense, net of federal income tax effect	16	0.7 %	88	8.9 %	104	3.0 %
Permanent differences	(36)	(1.5)%	10	1.0 %	(26)	(0.7)%
GILTI tax (a)	115	4.6 %	—	—	115	3.3 %
Foreign tax credits	(95)	(3.8)%	—	—	(95)	(2.7)%
Repatriation withholding tax	45	1.8 %	—	—	45	1.3 %
Tax effects of income associated with noncontrolling interests	(77)	(3.1)%	2	0.2 %	(75)	(2.2)%
Other, net	(36)	(1.4)%	(1)	(0.1)%	(37)	(1.1)%
Income tax expense	<u>\$ 456</u>	<u>18.3 %</u>	<u>\$ 246</u>	<u>24.8 %</u>	<u>\$ 702</u>	<u>20.1 %</u>

(a) See note on page 112.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

	U.S.		International		Total	
	Amount	Percent	Amount	Percent	Amount	Percent
<b>Year ended December 31, 2018</b>						
Income tax expense at statutory rates	\$ 665	21.0 %	\$ 163	15.3%	\$ 828	19.6 %
U.S. state and Canadian provincial tax expense, net of federal income tax effect	44	1.4 %	80	7.5%	124	2.9 %
Permanent differences	(9)	(0.3)%	—	—	(9)	(0.2)%
GILTI tax (a)	67	2.1 %	—	—	67	1.6 %
Foreign tax credits	(50)	(1.6)%	—	—	(50)	(1.2)%
Effects of Tax Reform (a)	(12)	(0.4)%	—	—	(12)	(0.3)%
Tax effects of income associated with noncontrolling interests	(49)	(1.5)%	—	—	(49)	(1.2)%
Other, net	(23)	(0.7)%	3	0.3%	(20)	(0.5)%
Income tax expense	<u>\$ 633</u>	<u>20.0 %</u>	<u>\$ 246</u>	<u>23.1%</u>	<u>\$ 879</u>	<u>20.7 %</u>
<b>Year ended December 31, 2017</b>						
Income tax expense at statutory rates	\$ 799	35.0 %	\$ 158	17.1%	\$ 957	29.8 %
U.S. state and Canadian provincial tax expense, net of federal income tax effect	37	1.6 %	46	5.0%	83	2.6 %
Permanent differences:						
Manufacturing deduction	(42)	(1.8)%	—	—	(42)	(1.3)%
Other	(9)	(0.4)%	—	—	(9)	(0.3)%
Change in tax law (a)	(1,862)	(81.6)%	—	—	(1,862)	(58.1)%
Tax effects of income associated with noncontrolling interests	(31)	(1.4)%	—	—	(31)	(1.0)%
Other, net	(52)	(2.3)%	7	0.8%	(45)	(1.4)%
Income tax expense (benefit)	<u>\$ (1,160)</u>	<u>(50.9)%</u>	<u>\$ 211</u>	<u>22.9%</u>	<u>\$ (949)</u>	<u>(29.7)%</u>

(a) See “Tax Reform” below for a discussion of the changes in tax law in the U.S. that were enacted in December 2017.

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

Components of income tax expense (benefit) were as follows (in millions):

	U.S.	International	Total
<b>Year ended December 31, 2019</b>			
Current:			
Country	\$ 145	\$ 186	\$ 331
U.S. state / Canadian provincial	37	100	137
Total current	182	286	468
Deferred:			
Country	290	(28)	262
U.S. state / Canadian provincial	(16)	(12)	(28)
Total deferred	274	(40)	234
Income tax expense	\$ 456	\$ 246	\$ 702
<b>Year ended December 31, 2018</b>			
Current:			
Country	\$ 432	\$ 141	\$ 573
U.S. state / Canadian provincial	37	66	103
Total current	469 (a)	207	676
Deferred:			
Country	145	25	170
U.S. state / Canadian provincial	19	14	33
Total deferred	164 (b)	39	203
Income tax expense	\$ 633	\$ 246	\$ 879
<b>Year ended December 31, 2017</b>			
Current:			
Country	\$ 1,305	\$ 194	\$ 1,499
U.S. state / Canadian provincial	34	61	95
Total current	1,339 (a)	255	1,594
Deferred:			
Country	(2,522)	(29)	(2,551)
U.S. state / Canadian provincial	23	(15)	8
Total deferred	(2,499) (b)	(44)	(2,543)
Income tax expense (benefit)	\$ (1,160)	\$ 211	\$ (949)

(a) Current income tax expense includes a \$21 million benefit and a \$781 million expense related to our Tax Reform adjustment for the years ended December 31, 2018 and 2017, respectively, as described in "Tax Reform" below.

(b) Deferred income tax expense (benefit) includes a \$9 million expense and a \$2.6 billion benefit related to our Tax Reform adjustment for the years ended December 31, 2018 and 2017, respectively, as described in "Tax Reform" below.

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

***Income Taxes Paid (Refunded)***

Income taxes paid to (received from) U.S. and international taxing authorities were as follows (in millions):

	Year Ended December 31,		
	2019	2018	2017
U.S.	\$ (298)	(a) \$ 1,016	\$ 239
International	182	345	171
Income taxes paid (refunded), net	<u>\$ (116)</u>	<u>\$ 1,361</u>	<u>\$ 410</u>

(a) This amount includes a refund of \$348 million, including interest, that we received related to the settlement of the combined audit of our U.S. federal income tax returns for 2010 and 2011. See “*Tax Returns Under Audit – U.S. Federal*” below.

***Deferred Income Tax Assets and Liabilities***

The tax effects of significant temporary differences representing deferred income tax assets and liabilities were as follows (in millions):

	December 31,	
	2019	2018
Deferred income tax assets:		
Tax credit carryforwards	\$ 683	\$ 644
Net operating losses (NOLs)	582	523
Inventories	141	101
Compensation and employee benefit liabilities	213	175
Environmental liabilities	69	71
Other	156	141
Total deferred income tax assets	1,844	1,655
Valuation allowance	(1,200)	(1,111)
Net deferred income tax assets	<u>644</u>	<u>544</u>
Deferred income tax liabilities:		
Property, plant, and equipment	4,924	4,589
Deferred turnaround costs	331	316
Inventories	217	287
Investments	122	142
Other	153	172
Total deferred income tax liabilities	5,747	5,506
Net deferred income tax liabilities	<u>\$ 5,103</u>	<u>\$ 4,962</u>

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

We had the following income tax credit and loss carryforwards as of December 31, 2019 (in millions):

	Amount	Expiration
U.S. state income tax credits (gross amount)	\$ 89	2020 through 2033
U.S. state income tax credits (gross amount)	17	Unlimited
U.S. foreign tax credits	598	2027
U.S. state NOLs (gross amount)	10,913	2020 through 2039

We have recorded a valuation allowance as of December 31, 2019 and 2018 due to uncertainties related to our ability to utilize some of our deferred income tax assets associated with our U.S. foreign tax credits and certain U.S. state income tax credits and NOLs before they expire. The valuation allowance is based on our estimates of future taxable income in the various jurisdictions in which we operate and the period over which deferred income tax assets will be recoverable. The valuation allowance increased by \$89 million in 2019 primarily due to an increase in excess U.S. foreign tax credits as well as U.S. state income tax NOLs.

As a part of completing our accounting for Tax Reform in 2018 as described in “*Tax Reform*” below, we assessed our ability to use our foreign tax credits to offset the tax on the deemed repatriation of the accumulated earnings and profits of our international subsidiaries and concluded that our foreign tax credit carryforwards were not more likely than not to be realized, and we recorded a full valuation allowance against the deferred income tax asset associated with those carryforwards.

As described in “*Tax Reform*” below, one of the most significant changes in Tax Reform was the shift from a worldwide system of taxation to a hybrid territorial system. The shift to a hybrid territorial system allows us to distribute cash via a dividend from our international subsidiaries with a full dividend received deduction in the U.S. As a result, we will not recognize U.S. federal deferred taxes for the future tax consequences attributable to undistributed earnings of our international subsidiaries. However, there may be a cost to repatriate the undistributed earnings of certain of our international subsidiaries to us, including, but not limited to, withholding taxes imposed by certain international jurisdictions and U.S. state income taxes. As of December 31, 2019, the cumulative undistributed earnings of these subsidiaries that is considered permanently reinvested in those countries were approximately \$4.2 billion. It is not practicable to estimate the amount of additional tax that would be payable on those earnings, if distributed.

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

**Unrecognized Tax Benefits**

**Change in Unrecognized Tax Benefits**

The following is a reconciliation of the change in unrecognized tax benefits, excluding related interest and penalties, (in millions):

	Year Ended December 31,		
	2019	2018	2017
Balance as of beginning of year	\$ 970	\$ 941	\$ 936
Additions for tax positions related to the current year	19	23	33
Additions for tax positions related to prior years	30	28	15
Reductions for tax positions related to prior years	(101)	(19)	(42)
Reductions for tax positions related to the lapse of applicable statute of limitations	(14)	(1)	(1)
Settlements	(7)	(2)	—
Balance as of end of year	<u>\$ 897</u>	<u>\$ 970</u>	<u>\$ 941</u>

**Liability for Unrecognized Tax Benefits**

The following is a reconciliation of unrecognized tax benefits to our liability for unrecognized tax benefits presented in our balance sheets (in millions).

	December 31,	
	2019	2018
Unrecognized tax benefits	\$ 897	\$ 970
Tax refund claims not yet filed but that we intend to file	(29)	(277)
Interest and penalties	100	88
Liability for unrecognized tax benefits presented in our balance sheets	<u>\$ 968</u>	<u>\$ 781</u>

Our liability for unrecognized tax benefits is reflected in the following balance sheet line items (in millions):

	December 31,	
	2019	2018
Income taxes payable	\$ —	\$ 42
Other long-term liabilities	954	721
Deferred tax liabilities	14	18
Liability for unrecognized tax benefits presented in our balance sheets	<u>\$ 968</u>	<u>\$ 781</u>

As of December 31, 2019, our liability for unrecognized tax benefits includes \$525 million of refund claims associated with taxes paid on incentive payments received from the U.S. federal government for blending biofuels into refined petroleum products. We recorded a tax refund receivable of \$525 million in connection with our refund claims, but we also recorded a liability for unrecognized tax benefits of \$525 million due to the complexity of this matter and uncertainties with respect to sustaining these refund claims. Therefore, our

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financial position, results of operations, and liquidity will not be negatively impacted if we are unsuccessful in sustaining these refund claims.

**Other Disclosures**

As of December 31, 2019 and 2018, there was \$762 million and \$807 million, respectively, of unrecognized tax benefits that if recognized would reduce our annual effective tax rate.

Interest and penalties incurred during the years ended December 31, 2019, 2018, and 2017 was immaterial.

Although reasonably possible, we do not anticipate that any of our tax audits will be resolved in 2020 that would result in a reduction in our liability for unrecognized tax benefits due to the tax positions being sustained or due to our agreement of their disallowance. Should any reductions occur, we do not expect they would have a significant impact on our financial statements because such reductions would not significantly affect our annual effective tax rate.

***Tax Returns Under Audit***

**U.S. Federal**

In 2019, we settled the combined audit related to our U.S. federal income tax returns for 2010 and 2011 and received a refund of \$348 million, including interest. We did not have a significant change to our liability for unrecognized tax benefits upon settlement of the audit. As of December 31, 2019, our U.S. federal income tax returns for 2012 through 2015 were under audit by the IRS. The IRS has proposed adjustments and we are working with the IRS to resolve these matters. We believe that these matters will be resolved for amounts consistent with our liability for unrecognized tax benefits associated with these matters.

We have amended our U.S. federal income tax returns for 2005 through 2011 to exclude from taxable income incentive payments received from the U.S. federal government for blending biofuels into refined petroleum products, and we have claimed \$525 million in refunds. The 2005 through 2009 amended return refund claims have been disallowed by the IRS and we are currently evaluating our options to contest the disallowance of these adjustments. As noted above in the discussion of our liability for unrecognized tax benefits, an ultimate disallowance of these refund claims would not negatively impact our financial position, results of operations, and liquidity.

**U.S. State**

As of December 31, 2019, our California tax returns for 2004 through 2008 and 2011 through 2016 were under audit by the state of California. We do not expect the ultimate disposition of these audits will result in a material change to our financial position, results of operations, or liquidity. We believe these audits will be resolved for amounts consistent with the liability for unrecognized tax benefits associated with these audits.

**International**

As of December 31, 2019, our Canadian subsidiary's federal tax returns for 2013 through 2016 were under audit by the Canada Revenue Agency (CRA) and our Quebec provincial tax returns for 2013 through 2016 were under audit by Revenue Quebec. We are currently protesting the proposed adjustments by the CRA for 2013 and 2014 and we do not expect the ultimate disposition of these adjustments will result in a material change to our financial position, results of operations, or liquidity.



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Tax Reform***

On December 22, 2017, the Tax Cuts and Jobs Act of 2017 (Tax Reform) was enacted, which resulted in significant changes to the Code and was effective beginning on January 1, 2018. The most significant changes affecting us are as follows:

- reduction in the statutory income tax rate from 35 percent to 21 percent;
- assessment of a one-time transition tax on deemed repatriated earnings and profits from our international subsidiaries;
- shift from a worldwide system of taxation to a hybrid territorial system of taxation, resulting in a minimum tax on the income of international subsidiaries (the GILTI tax) rather than a tax deferral on such earnings in certain circumstances;
- deduction for all of the costs to acquire or construct certain business assets in the year they are placed in service through 2022; and
- repeal of the manufacturing deduction;

The following narrative describes the activity that occurred with respect to Tax Reform for the years ended December 31, 2017 and 2018.

We reflected an overall income tax benefit of \$1.9 billion for the year ended December 31, 2017 with respect to Tax Reform as a result of the following:

- We remeasured our U.S. deferred tax assets and liabilities using the 21 percent rate, which resulted in a tax benefit and a reduction to our net deferred tax liabilities of \$2.6 billion.
- We recognized a one-time transition tax of \$734 million on the deemed repatriation of previously undistributed accumulated earnings and profits of our international subsidiaries based on approximately \$4.7 billion of the combined earnings and profits of our international subsidiaries that had not been distributed to us. This transition tax will be remitted to the Internal Revenue Service (IRS) over the eight-year period provided in the Code, with the first annual remittance paid in 2018.
- We accrued withholding tax of \$47 million on a portion of the earnings of one of our international subsidiaries that we have deemed to not be permanently reinvested in our operations in that country.

Because of the significant and complex changes to the Code from Tax Reform, including the need for regulatory guidance from the IRS to properly account for many of the provisions, the SEC issued Staff Accounting Bulletin No. 118, "Income Tax Accounting Implications of the Tax Cuts and Jobs Act," which required that the effects of Tax Reform be recorded for items where the accounting was complete, as well as for items where a reasonable estimate could be made (referred to as provisional amounts). For items where reasonable estimates could not be made, provisional amounts were not recorded and those items continued to be accounted for under the Code prior to changes from Tax Reform until a reasonable estimate could be made.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

The following table summarizes the components of our adjustment (in millions) to reflect the effects of Tax Reform for the years ended December 31, 2018 and 2017, including whether such amounts were complete, provisional, or incomplete. The amounts presented for 2018 were completed during the fourth quarter of 2018.

	Year Ended December 31,				Cumulative Tax Reform Adjustment
	2017		2018		
	Accounting Status	Amount	Accounting Status	Amount	
Income tax benefit from the remeasurement of U.S. deferred income tax assets and liabilities	Complete	\$ (2,643)	Complete	\$ —	\$ (2,643)
Tax on the deemed repatriation of the accumulated earnings and profits of our international subsidiaries	Provisional	734	Complete	6	740
Recognition of foreign withholding tax, net of U.S. federal tax benefit	Complete	47	Complete	—	47
Deductibility of certain executive compensation expense	Incomplete	—	Complete	5	5
Income tax expense associated with the statutory income tax rate differential on accrual to return adjustments that were identified upon completion of our U.S. federal income tax return in 2018	Incomplete	—	Complete	9	9
Foreign tax credit available to offset the tax on deemed repatriation of the accumulated earnings and profits of our international subsidiaries	Incomplete	—	Complete	(32)	(32)
Tax Reform benefit		\$ (1,862)		\$ (12)	\$ (1,874)

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**16. EARNINGS PER COMMON SHARE**

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

	Year Ended December 31,		
	2019	2018	2017
<b>Earnings per common share</b>			
Net income attributable to Valero stockholders	\$ 2,422	\$ 3,122	\$ 4,065
Less: Income allocated to participating securities	7	9	14
Net income available to common shareholders	<u>\$ 2,415</u>	<u>\$ 3,113</u>	<u>\$ 4,051</u>
Weighted-average common shares outstanding	413	426	442
Earnings per common share	<u>\$ 5.84</u>	<u>\$ 7.30</u>	<u>\$ 9.17</u>
<b>Earnings per common share – assuming dilution</b>			
Net income attributable to Valero stockholders	<u>\$ 2,422</u>	<u>\$ 3,122</u>	<u>\$ 4,065</u>
Weighted-average common shares outstanding	413	426	442
Effect of dilutive securities	1	2	2
Weighted-average common shares outstanding – assuming dilution	<u>414</u>	<u>428</u>	<u>444</u>
Earnings per common share – assuming dilution	<u>\$ 5.84</u>	<u>\$ 7.29</u>	<u>\$ 9.16</u>

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

**17. REVENUES AND SEGMENT INFORMATION**

***Revenue from Contracts with Customers***

**Disaggregation of Revenue**

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

**Receivables from Contracts with Customers**

Our receivables from contracts with customers are included in “receivables, net” as presented in Note 3.

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

**Contract Liabilities from Contracts with Customers**

Our contract liabilities from contracts with customers are included in accrued expenses as presented in Note 8. Substantially all of the contract liabilities as of December 31, 2018 were recognized into revenue during the year ended December 31, 2019.

**Remaining Performance Obligations**

We have spot and term contracts with customers, the majority of which are spot contracts with no remaining performance obligations. We do not disclose remaining performance obligations for contracts that have terms of one year or less. The transaction price for our remaining term contracts includes a fixed component and variable consideration (i.e., a commodity price), both of which are allocated entirely to a wholly unsatisfied promise to transfer a distinct good that forms part of a single performance obligation. The fixed component is not material and the variable consideration is highly uncertain. Therefore, as of December 31, 2019, we have not disclosed the aggregate amount of the transaction price allocated to our remaining performance obligations.

**Segment Information**

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

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

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

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

- The *renewable diesel segment* includes the operations of DGD, our consolidated joint venture as discussed in Note 12. The principal product manufactured by DGD and sold by this segment is renewable diesel. This segment sells some renewable diesel to the refining segment, which is then sold to that segment's customers.

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

The following tables reflect information about our operating income and total expenditures for long-lived assets by reportable segment (in millions):

	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
<b>Year ended December 31, 2019</b>					
Revenues:					
Revenues from external customers	\$ 103,746	\$ 3,606	\$ 970	\$ 2	\$ 108,324
Intersegment revenues	18	231	247	(496)	—
Total revenues	103,764	3,837	1,217	(494)	108,324
Cost of sales:					
Cost of materials and other	93,371	3,239	360	(494)	96,476
Operating expenses (excluding depreciation and amortization expense reflected below)	4,289	504	75	—	4,868
Depreciation and amortization expense	2,062	90	50	—	2,202
Total cost of sales	99,722	3,833	485	(494)	103,546
Other operating expenses	20	1	—	—	21
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	868	868
Depreciation and amortization expense	—	—	—	53	53
Operating income by segment	\$ 4,022	\$ 3	\$ 732	\$ (921)	\$ 3,836
Total expenditures for long-lived assets (a)	\$ 2,581	\$ 47	\$ 160	\$ 58	\$ 2,846

(a) See note on page 123.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

	Refining	Ethanol	Renewable Diesel	Corporate and Eliminations	Total
<b>Year ended December 31, 2018</b>					
Revenues:					
Revenues from external customers	\$ 113,093	\$ 3,428	\$ 508	\$ 4	\$ 117,033
Intersegment revenues	25	210	170	(405)	—
Total revenues	113,118	3,638	678	(401)	117,033
Cost of sales:					
Cost of materials and other	101,866	3,008	262	(404)	104,732
Operating expenses (excluding depreciation and amortization expense reflected below)	4,154	470	66	—	4,690
Depreciation and amortization expense	1,910	78	29	—	2,017
Total cost of sales	107,930	3,556	357	(404)	111,439
Other operating expenses	45	—	—	—	45
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	925	925
Depreciation and amortization expense	—	—	—	52	52
Operating income by segment	\$ 5,143	\$ 82	\$ 321	\$ (974)	\$ 4,572
Total expenditures for long-lived assets (a)	\$ 2,767	\$ 373	\$ 192	\$ 44	\$ 3,376
<b>Year ended December 31, 2017</b>					
Revenues:					
Revenues from external customers	\$ 90,258	\$ 3,324	\$ 393	\$ 5	\$ 93,980
Intersegment revenues	8	176	241	(425)	—
Total revenues	90,266	3,500	634	(420)	93,980
Cost of sales:					
Cost of materials and other	80,160	2,804	498	(425)	83,037
Operating expenses (excluding depreciation and amortization expense reflected below)	4,014	443	47	—	4,504
Depreciation and amortization expense	1,824	81	29	—	1,934
Total cost of sales	85,998	3,328	574	(425)	89,475
Other operating expenses	61	—	—	—	61
General and administrative expenses (excluding depreciation and amortization expense reflected below)	—	—	—	829	829
Depreciation and amortization expense	—	—	—	52	52
Operating income by segment	\$ 4,207	\$ 172	\$ 60	\$ (876)	\$ 3,563
Total expenditures for long-lived assets (a)	\$ 1,732	\$ 84	\$ 88	\$ 44	\$ 1,948

(a) Total expenditures for long-lived assets includes amounts related to capital expenditures; deferred turnaround and catalyst costs; and property, plant, and equipment for acquisitions.

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

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

	Year Ended December 31,		
	2019	2018	2017
Refining:			
Gasolines and blendstocks	\$ 42,798	\$ 46,596	\$ 40,347
Distillates	51,942	55,037	41,680
Other product revenues	9,006	11,460	8,231
Total refining revenues	103,746	113,093	90,258
Ethanol:			
Ethanol	2,889	2,713	2,764
Distillers grains	717	715	560
Total ethanol revenues	3,606	3,428	3,324
Renewable diesel:			
Renewable diesel	970	508	393
Corporate – other revenues	2	4	5
Revenues	\$ 108,324	\$ 117,033	\$ 93,980

Revenues by geographic area are shown in the following table (in millions). The geographic area is based on location of customer and no customer accounted for 10 percent or more of our revenues.

	Year Ended December 31,		
	2019	2018	2017
U.S.	\$ 77,173	\$ 82,992	\$ 66,614
Canada	7,915	9,211	7,039
U.K. and Ireland	13,584	15,208	11,556
Other countries	9,652	9,622	8,771
Revenues	\$ 108,324	\$ 117,033	\$ 93,980

Long-lived assets include property, plant, and equipment and certain long-lived assets included in “deferred charges and other assets, net.” Long-lived assets by geographic area consisted of the following (in millions):

	December 31,	
	2019	2018
U.S.	\$ 27,485	\$ 27,475
Canada	1,886	1,798
U.K. and Ireland	1,232	1,113
Other countries	497	266
Total long-lived assets	\$ 31,100	\$ 30,652

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

	<b>December 31,</b>	
	<b>2019</b>	<b>2018</b>
Refining	\$ 47,067	\$ 43,488
Ethanol	1,615	1,691
Renewable diesel	1,412	787
Corporate and eliminations	3,770	4,189
Total assets	<u>\$ 53,864</u>	<u>\$ 50,155</u>

As of December 31, 2019 and 2018, our investments in unconsolidated joint ventures accounted for under the equity method were \$942 million and \$542 million, respectively, all of which related to the refining segment and are reflected in “deferred charges and other assets, net” as presented in Note 7.

**18. 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):

	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Decrease (increase) in current assets:			
Receivables, net	\$ (1,468)	\$ (457)	\$ (870)
Inventories	(385)	(197)	(516)
Prepaid expenses and other	427	(77)	151
Increase (decrease) in current liabilities:			
Accounts payable	1,534	304	1,842
Accrued expenses	(27)	(113)	21
Taxes other than income taxes payable	60	(73)	172
Income taxes payable	153	(684)	489
Changes in current assets and current liabilities	<u>\$ 294</u>	<u>\$ (1,297)</u>	<u>\$ 1,289</u>

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

	<b>Year Ended December 31,</b>		
	<b>2019</b>	<b>2018</b>	<b>2017</b>
Interest paid in excess of amount capitalized, including interest on finance leases	\$ 452	\$ 463	\$ 457
Income taxes paid (refunded), net (see Note 15)	(116)	1,361	410



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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

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

	Year Ended December 31, 2019	
	Operating Leases	Finance Leases
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows	\$ 441	\$ 50
Investing cash flows	1	—
Financing cash flows	—	34
Changes in lease balances resulting from new and modified leases (a)	1,756	239

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

Noncash investing and financing activities for the year ended December 31, 2019 also included the derecognition of the property, plant, and equipment and the related long-term liability associated with a build-to-suit lease arrangement with respect to the MVP Terminal, and the subsequent recognition of our investment in MVP, which is the unconsolidated joint venture that owns the MVP Terminal, as described in Note 10.

Noncash investing and financing activities for the years ended December 31, 2018 and 2017 included the recognition of (i) finance lease assets and related obligations primarily for the lease of storage tanks and (ii) terminal assets and related obligations under owner accounting as described in Note 10.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

**19. FAIR VALUE MEASUREMENTS**

***General***

U.S. GAAP requires or permits certain assets and liabilities to be measured at fair value on a recurring or nonrecurring basis in our balance sheets, and those assets and liabilities are presented below under “*Recurring Fair Value Measurements*” and “*Nonrecurring Fair Value Measurements*.” Assets and liabilities measured at fair value on a recurring basis, such as derivative financial instruments, are measured at fair value at the end of each reporting period. Assets and liabilities measured at fair value on a nonrecurring basis, such as the impairment of property, plant and equipment, are measured at fair value in particular circumstances.

U.S. GAAP also requires the disclosure of the fair values of financial instruments when an option to elect fair value accounting has been provided, but such election has not been made. A debt obligation is an example of such a financial instrument. The disclosure of the fair values of financial instruments not recognized at fair value in our balance sheet is presented below under “*Other Financial Instruments*.”

U.S. GAAP provides a framework for measuring fair value and establishes a three-level fair value hierarchy that prioritizes inputs to valuation techniques based on the degree to which objective prices in external active markets are available to measure fair value. Following is a description of each of the levels of the fair value hierarchy.

- *Level 1* - Observable inputs, such as unadjusted quoted prices in active markets for identical assets or liabilities.
- *Level 2* - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.
- *Level 3* - Unobservable inputs for the asset or liability. Unobservable inputs reflect our own assumptions about what market participants would use to price the asset or liability. The inputs are developed based on the best information available in the circumstances, which might include occasional market quotes or sales of similar instruments or our own financial data such as internally developed pricing models, discounted cash flow methodologies, as well as instruments for which the fair value determination requires significant judgment.

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

***Recurring Fair Value Measurements***

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

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

	December 31, 2019									
	Fair Value Hierarchy			Total Gross Fair Value	Effect of Counter- party Netting	Effect of Cash Collateral Netting	Net Carrying Value on Balance Sheet	Cash Collateral Paid or Received Not Offset		
	Level 1	Level 2	Level 3							
Assets										
Commodity derivative contracts	\$ 617	\$ —	\$ —	\$ 617	\$ (612)	\$ —	\$ 5	\$ —		
Foreign currency contracts	27	—	—	27	n/a	n/a	27	n/a		
Investments of certain benefit plans	65	—	9	74	n/a	n/a	74	n/a		
Total	\$ 709	\$ —	\$ 9	\$ 718	\$ (612)	\$ —	\$ 106			
Liabilities										
Commodity derivative contracts	\$ 668	\$ —	\$ —	\$ 668	\$ (612)	\$ (56)	\$ —	\$ (84)		
Environmental credit obligations	—	2	—	2	n/a	n/a	2	n/a		
Physical purchase contracts	—	3	—	3	n/a	n/a	3	n/a		
Foreign currency contracts	10	—	—	10	n/a	n/a	10	n/a		
Total	\$ 678	\$ 5	\$ —	\$ 683	\$ (612)	\$ (56)	\$ 15			

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**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

December 31, 2018

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

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

- Commodity derivative contracts consist primarily of exchange-traded futures, which are used to reduce the impact of price volatility on our results of operations and cash flows as discussed in Note 20. These contracts are measured at fair value using a market approach based on quoted prices from the commodity exchange and are categorized in Level 1 of the fair value hierarchy.
- Physical purchase contracts represent the fair value of fixed-price corn purchase contracts. The fair values of these purchase contracts are measured using a market approach based on quoted prices from the commodity exchange or an independent pricing service and are categorized in Level 2 of the fair value hierarchy.
- Investments of certain benefit plans consist of investment securities held by trusts for the purpose of satisfying a portion of our obligations under certain U.S. nonqualified benefit plans. The plan assets categorized in Level 1 of the fair value hierarchy are measured at fair value using a market approach based on quoted prices from national securities exchanges. The plan assets categorized in Level 3 of the fair value hierarchy represent insurance contracts, the fair value of which is provided by the insurer.

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

- Foreign currency contracts consist of foreign currency exchange and purchase contracts and foreign currency swap agreements related to our international operations to manage our exposure to exchange rate fluctuations on transactions denominated in currencies other than the local (functional) currencies of our operations. These contracts are valued based on quoted foreign currency exchange rates and are categorized in Level 1 of the fair value hierarchy.
- Environmental credit obligations represent our liability for the purchase of (i) biofuel credits (primarily RINs in the U.S.) needed to satisfy our obligation to blend biofuels into the products we produce and (ii) emission credits under the *California Global Warming Solutions Act* (the California cap-and-trade system, also known as AB 32) and similar programs, (collectively, the cap-and-trade systems). To the degree we are unable to blend biofuels (such as ethanol and biodiesel) at percentages required under the biofuel programs, we must purchase biofuel credits to comply with these programs. Under the cap-and-trade systems, we must purchase emission credits to comply with these systems. These programs are described in Note 20 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 into or out of Level 3 for assets and liabilities held as of December 31, 2019 and 2018 that were measured at fair value on a recurring basis.

There was no significant activity during the years ended December 31, 2019, 2018, and 2017 related to the fair value amounts categorized in Level 3 as of December 31, 2019 and 2018.

**Nonrecurring Fair Value Measurements**

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

**Other Financial Instruments**

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

	Fair Value Hierarchy	December 31, 2019		December 31, 2018	
		Carrying Amount	Fair Value	Carrying Amount	Fair Value
Financial assets					
Cash and cash equivalents	Level 1	\$ 2,583	\$ 2,583	\$ 2,982	\$ 2,982
Financial liabilities					
Debt (excluding finance leases)	Level 2	8,881	10,583	8,503	8,986

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

**20. PRICE RISK MANAGEMENT ACTIVITIES**

We are exposed to market risks primarily related to the volatility in the price of commodities, foreign currency exchange rates, and the price of credits needed to comply with various government and regulatory programs. We enter into derivative instruments to manage some of these risks, including derivative instruments related to the various commodities we purchase or produce, and foreign currency exchange and purchase contracts, as described below under *“Risk Management Activities by Type of Risk.”* These derivative instruments are recorded as either assets or liabilities measured at their fair values (see Note 19), as summarized below under *“Fair Values of Derivative Instruments.”* The effect of these derivative instruments on our income is summarized below under *“Effect of Derivative Instruments on Income.”*

***Risk Management Activities by Type of Risk***

**Commodity Price Risk**

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

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

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

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

As of December 31, 2019, we had the following outstanding commodity derivative instruments that were used as cash flow hedges and economic hedges, as well as commodity derivative instruments related to the physical purchase of corn at a fixed price. The information presents the notional volume of outstanding contracts by type of instrument and year of maturity (volumes in thousands of barrels, except corn contracts that are presented in thousands of bushels).

	Notional Contract Volumes by Year of Maturity	
	2020	2021
<b>Derivatives designated as cash flow hedges</b>		
Renewable diesel:		
Futures – long	995	—
Futures – short	2,492	—
<b>Derivatives designated as economic hedges</b>		
Crude oil and refined petroleum products:		
Futures – long	73,348	2
Futures – short	76,045	—
Options – long	1,550	—
Options – short	1,550	—
Corn:		
Futures – long	50,120	—
Futures – short	66,575	295
Physical contracts – long	22,055	306

**Foreign Currency Risk**

We are exposed to exchange rate fluctuations on transactions related to our international operations that are denominated in currencies other than the local (functional) currencies of our operations. To manage our exposure to these exchange rate fluctuations, we use foreign currency contracts. These contracts are not designated as hedging instruments for accounting purposes and therefore are classified as economic hedges. As of December 31, 2019, we had foreign currency contracts to purchase \$739 million of U.S. dollars and \$2.3 billion of U.S. dollar equivalent Canadian dollars. All of these commitments matured on or before February 15, 2020.

**Environmental Compliance Program Price Risk**

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

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

a rate that is at least equal to the applicable quota. To the degree we are unable to blend at the applicable rate, we must purchase biofuel credits (primarily RINs in the U.S.). We are exposed to the volatility in the market price of these credits, and we manage that risk by purchasing biofuel credits when prices are deemed favorable. For the years ended December 31, 2019, 2018, and 2017, the cost of meeting our obligations under these compliance programs was \$318 million, \$536 million, and \$942 million, respectively. These amounts are reflected in cost of materials and other.

We are subject to additional requirements under GHG emission programs, including the cap-and-trade systems, as discussed in Note 19. 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 years ended December 31, 2019, 2018, and 2017 and expect to continue to recover the majority of these costs in the future. For the years ended December 31, 2019, 2018, and 2017, 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 December 31, 2019 and 2018 (in millions) and the line items in the balance sheets in which the fair values are reflected. See Note 19 for additional information related to the fair values of our derivative instruments.

As indicated in Note 19, we net fair value amounts recognized for multiple similar derivative contracts executed with the same counterparty under master netting arrangements, including cash collateral assets and obligations. The following tables, however, are presented on a gross asset and gross liability basis, which results in the reflection of certain assets in liability accounts and certain liabilities in asset accounts.

	Balance Sheet Location	December 31, 2019		December 31, 2018	
		Asset Derivatives	Liability Derivatives	Asset Derivatives	Liability Derivatives
Derivatives designated as hedging instruments					
Commodity contracts	Receivables, net	\$ 9	\$ 20	\$ —	\$ —
Derivatives not designated as hedging instruments					
Commodity contracts	Receivables, net	\$ 608	\$ 648	\$ 2,792	\$ 2,681
Physical purchase contracts	Inventories	—	3	—	5
Foreign currency contracts	Receivables, net	27	—	4	—
Foreign currency contracts	Accrued expenses	—	10	—	1
Total		\$ 635	\$ 661	\$ 2,796	\$ 2,687

***Market Risk***

Our price risk management activities involve the receipt or payment of fixed price commitments into the future. These transactions give rise to market risk, which is the risk that future changes in market conditions



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

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

Derivatives Not Designated as Hedging Instruments	Location of Gain (Loss) Recognized in Income on Derivatives	Year Ended December 31,		
		2019	2018	2017
Commodity contracts	Revenues	\$ 5	\$ —	\$ —
Commodity contracts	Cost of materials and other	(68)	(165)	(278)
Commodity contracts	Operating expenses (excluding depreciation and amortization expense)	—	7	—
Foreign currency contracts	Cost of materials and other	(21)	56	(40)
Foreign currency contracts	Other income, net	75	(43)	—

**21. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS**

In connection with the completion of the Merger Transaction as described in Note 2, Valero Energy Corporation, the parent company, entered into a guarantee agreement to fully and unconditionally guarantee the prompt payment, when due, of the following debt issued by Valero Energy Partners LP, an indirect wholly owned subsidiary of Valero Energy Corporation, that was outstanding as of December 31, 2019:

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

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

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

**Condensed Consolidating Balance Sheet**  
**December 31, 2019**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
<b>ASSETS</b>					
Current assets:					
Cash and cash equivalents	\$ 912	\$ —	\$ 1,671	\$ —	\$ 2,583
Receivables, net	—	—	8,904	—	8,904
Receivables from affiliates	4,336	—	13,806	(18,142)	—
Inventories	—	—	7,013	—	7,013
Prepaid expenses and other	63	—	406	—	469
Total current assets	5,311	—	31,800	(18,142)	18,969
Property, plant and equipment, at cost	—	—	44,294	—	44,294
Accumulated depreciation	—	—	(15,030)	—	(15,030)
Property, plant and equipment, net	—	—	29,264	—	29,264
Investment in affiliates	37,902	2,673	382	(40,957)	—
Deferred charges and other assets, net	771	—	4,860	—	5,631
Total assets	\$ 43,984	\$ 2,673	\$ 66,306	\$ (59,099)	\$ 53,864
<b>LIABILITIES AND EQUITY</b>					
Current liabilities:					
Current portion of debt and finance lease obligations	\$ —	\$ —	\$ 494	\$ —	\$ 494
Accounts payable	—	—	10,205	—	10,205
Accounts payable to affiliates	12,515	1,291	4,336	(18,142)	—
Accrued expenses	120	7	822	—	949
Taxes other than income taxes payable	—	—	1,304	—	1,304
Income taxes payable	108	—	100	—	208
Total current liabilities	12,743	1,298	17,261	(18,142)	13,160
Debt and finance lease obligations, less current portion	7,095	991	1,092	—	9,178
Deferred income tax liabilities	—	2	5,101	—	5,103
Other long-term liabilities	2,343	—	1,544	—	3,887
Equity:					
Stockholders' equity:					
Common stock	7	—	1	(1)	7
Additional paid-in capital	6,821	—	9,771	(9,771)	6,821
Treasury stock, at cost	(15,648)	—	—	—	(15,648)
Retained earnings	31,974	—	31,636	(31,636)	31,974
Partners' equity	—	382	—	(382)	—
Accumulated other comprehensive loss	(1,351)	—	(833)	833	(1,351)
Total stockholders' equity	21,803	382	40,575	(40,957)	21,803
Noncontrolling interests	—	—	733	—	733
Total equity	21,803	382	41,308	(40,957)	22,536
Total liabilities and equity	\$ 43,984	\$ 2,673	\$ 66,306	\$ (59,099)	\$ 53,864

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

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

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



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

**Condensed Consolidating Statement of Income**  
**Year Ended December 31, 2019**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 108,324	\$ —	\$ 108,324
Cost of sales:					
Cost of materials and other	—	—	96,476	—	96,476
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	4,868	—	4,868
Depreciation and amortization expense	—	—	2,202	—	2,202
Total cost of sales	—	—	103,546	—	103,546
Other operating expenses	—	—	21	—	21
General and administrative expenses (excluding depreciation and amortization expense reflected below)	6	—	862	—	868
Depreciation and amortization expense	—	—	53	—	53
Operating income (loss)	(6)	—	3,842	—	3,836
Equity in earnings of subsidiaries	3,006	406	357	(3,769)	—
Other income, net	193	—	625	(714)	104
Interest and debt expense, net of capitalized interest	(927)	(47)	(194)	714	(454)
Income before income tax expense (benefit)	2,266	359	4,630	(3,769)	3,486
Income tax expense (benefit)	(156)	—	858	—	702
Net income	2,422	359	3,772	(3,769)	2,784
Less: Net income attributable to noncontrolling interests	—	—	360	2	362
Net income attributable to stockholders	\$ 2,422	\$ 359	\$ 3,412	\$ (3,771)	\$ 2,422

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

**Condensed Consolidating Statement of Income**  
**Year Ended December 31, 2018**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 117,033	\$ —	\$ 117,033
Cost of sales:					
Cost of materials and other	—	—	104,732	—	104,732
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	4,690	—	4,690
Depreciation and amortization expense	—	—	2,017	—	2,017
Total cost of sales	—	—	111,439	—	111,439
Other operating expenses	—	—	45	—	45
General and administrative expenses (excluding depreciation and amortization expense reflected below)	2	—	923	—	925
Depreciation and amortization expense	—	—	52	—	52
Operating income (loss)	(2)	—	4,574	—	4,572
Equity in earnings of subsidiaries	3,724	319	196	(4,239)	—
Other income, net	220	2	621	(713)	130
Interest and debt expense, net of capitalized interest	(913)	(55)	(215)	713	(470)
Income before income tax expense (benefit)	3,029	266	5,176	(4,239)	4,232
Income tax expense (benefit)	(93)	2	970	—	879
Net income	3,122	264	4,206	(4,239)	3,353
Less: Net income attributable to noncontrolling interests	—	—	163	68	231
Net income attributable to stockholders	\$ 3,122	\$ 264	\$ 4,043	\$ (4,307)	\$ 3,122

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

**Condensed Consolidating Statement of Income**  
**Year Ended December 31, 2017**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Revenues	\$ —	\$ —	\$ 93,980	\$ —	\$ 93,980
Cost of sales:					
Cost of materials and other	—	—	83,037	—	83,037
Operating expenses (excluding depreciation and amortization expense reflected below)	—	—	4,504	—	4,504
Depreciation and amortization expense	—	—	1,934	—	1,934
Total cost of sales	—	—	89,475	—	89,475
Other operating expenses	—	—	61	—	61
General and administrative expenses (excluding depreciation and amortization expense reflected below)	6	—	823	—	829
Depreciation and amortization expense	—	—	52	—	52
Operating income (loss)	(6)	—	3,569	—	3,563
Equity in earnings of subsidiaries	5,236	275	176	(5,687)	—
Other income, net	290	1	415	(594)	112
Interest and debt expense, net of capitalized interest	(780)	(36)	(246)	594	(468)
Income before income tax expense (benefit)	4,740	240	3,914	(5,687)	3,207
Income tax expense (benefit)	675	2	(1,626)	—	(949)
Net income	4,065	238	5,540	(5,687)	4,156
Less: Net income attributable to noncontrolling interests	—	—	29	62	91
Net income attributable to stockholders	\$ 4,065	\$ 238	\$ 5,511	\$ (5,749)	\$ 4,065

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

**Condensed Consolidating Statement of Comprehensive Income**  
**Year Ended December 31, 2019**  
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 2,422	\$ 359	\$ 3,772	\$ (3,769)	\$ 2,784
Other comprehensive income:					
Foreign currency translation adjustment	346	—	286	(283)	349
Net loss on pension and other postretirement benefits	(234)	—	(19)	19	(234)
Net loss on cash flow hedges	(4)	—	(8)	4	(8)
Other comprehensive income before income tax benefit	108	—	259	(260)	107
Income tax benefit related to items of other comprehensive income	(48)	—	(4)	4	(48)
Other comprehensive income	156	—	263	(264)	155
Comprehensive income	2,578	359	4,035	(4,033)	2,939
Less: Comprehensive income attributable to noncontrolling interests	—	—	359	2	361
Comprehensive income attributable to stockholders	\$ 2,578	\$ 359	\$ 3,676	\$ (4,035)	\$ 2,578

**Condensed Consolidating Statement of Comprehensive Income**  
**Year Ended December 31, 2018**  
(in millions)

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net income	\$ 3,122	\$ 264	\$ 4,206	\$ (4,239)	\$ 3,353
Other comprehensive loss:					
Foreign currency translation adjustment	(515)	—	(419)	417	(517)
Net gain on pension and other postretirement benefits	49	—	18	(18)	49
Other comprehensive loss before income tax expense	(466)	—	(401)	399	(468)
Income tax expense related to items of other comprehensive loss	10	—	3	(3)	10
Other comprehensive loss	(476)	—	(404)	402	(478)
Comprehensive income	2,646	264	3,802	(3,837)	2,875
Less: Comprehensive income attributable to noncontrolling interests	—	—	161	68	229
Comprehensive income attributable to stockholders	\$ 2,646	\$ 264	\$ 3,641	\$ (3,905)	\$ 2,646



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

**Condensed Consolidating Statement of Comprehensive Income**  
**Year Ended December 31, 2017**  
**(in millions)**

	<b>Valero Energy Corporation</b>	<b>Valero Energy Partners LP</b>	<b>Other Non- Guarantor Subsidiaries</b>	<b>Eliminations</b>	<b>Consolidated</b>
Net income	\$ 4,065	\$ 238	\$ 5,540	\$ (5,687)	\$ 4,156
Other comprehensive income:					
Foreign currency translation adjustment	514	—	434	(434)	514
Net gain (loss) on pension and other postretirement benefits	(65)	—	4	(4)	(65)
Other comprehensive income before income tax expense (benefit)	449	—	438	(438)	449
Income tax expense (benefit) related to items of other comprehensive income	(21)	—	1	(1)	(21)
Other comprehensive income	470	—	437	(437)	470
Comprehensive income	4,535	238	5,977	(6,124)	4,626
Less: Comprehensive income attributable to noncontrolling interests	—	—	29	62	91
Comprehensive income attributable to stockholders	\$ 4,535	\$ 238	\$ 5,948	\$ (6,186)	\$ 4,535

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

**Condensed Consolidating Statement of Cash Flows**  
**Year Ended December 31, 2019**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by (used in) operating activities	\$ (131)	\$ (46)	\$ 6,165	\$ (457)	\$ 5,531
Cash flows from investing activities:					
Capital expenditures (excluding VIEs)	—	—	(1,627)	—	(1,627)
Capital expenditures of VIEs:					
DGD	—	—	(142)	—	(142)
Other VIEs	—	—	(225)	—	(225)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	—	—	(762)	—	(762)
Deferred turnaround and catalyst cost expenditures of DGD	—	—	(18)	—	(18)
Investments in unconsolidated joint ventures	—	—	(164)	—	(164)
Acquisitions of ethanol plants	—	—	(3)	—	(3)
Acquisitions of undivided interests	—	—	(72)	—	(72)
Intercompany investing activities	395	2	(2,973)	2,576	—
Other investing activities, net	—	—	12	—	12
Net cash provided by (used in) investing activities	395	2	(5,974)	2,576	(3,001)
Cash flows from financing activities:					
Proceeds from debt issuances and borrowings (excluding VIEs)	992	—	900	—	1,892
Proceeds from borrowings of VIEs	—	—	239	—	239
Repayments of debt and finance lease obligations (excluding VIEs)	(871)	—	(934)	—	(1,805)
Repayments of debt of VIEs	—	—	(6)	—	(6)
Intercompany financing activities	2,520	268	(212)	(2,576)	—
Purchases of common stock for treasury	(777)	—	—	—	(777)
Common stock dividends	(1,492)	—	(81)	81	(1,492)
Acquisition of VLP publicly held common units	—	—	(950)	—	(950)
Distributions to noncontrolling interests and unitholders of VLP	—	(376)	(70)	376	(70)
Other financing activities, net	(15)	—	(13)	—	(28)
Net cash provided by (used in) financing activities	357	(108)	(1,127)	(2,119)	(2,997)
Effect of foreign exchange rate changes on cash	—	—	68	—	68
Net increase (decrease) in cash and cash equivalents	621	(152)	(868)	—	(399)
Cash and cash equivalents at beginning of year	291	152	2,539	—	2,982
Cash and cash equivalents at end of year	\$ 912	\$ —	\$ 1,671	\$ —	\$ 2,583

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

**Condensed Consolidating Statement of Cash Flows**  
**Year Ended December 31, 2018**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by (used in) operating activities	\$ (1,207)	\$ (51)	\$ 5,828	\$ (199)	\$ 4,371
Cash flows from investing activities:					
Capital expenditures (excluding VIEs)	—	—	(1,463)	—	(1,463)
Capital expenditures of VIEs:					
DGD	—	—	(165)	—	(165)
Other VIEs	—	—	(124)	—	(124)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	—	—	(888)	—	(888)
Deferred turnaround and catalyst cost expenditures of DGD	—	—	(27)	—	(27)
Investments in unconsolidated joint ventures	—	—	(181)	—	(181)
Peru Acquisition, net of cash acquired	—	—	(468)	—	(468)
Acquisitions of ethanol plants	—	—	(320)	—	(320)
Acquisitions of undivided interests	—	—	(212)	—	(212)
Minor acquisitions	—	—	(88)	—	(88)
Intercompany investing activities	758	102	(2,381)	1,521	—
Other investing activities, net	—	—	8	—	8
Net cash provided by (used in) investing activities	758	102	(6,309)	1,521	(3,928)
Cash flows from financing activities:					
Proceeds from debt issuances and borrowings (excluding VIEs)	750	498	10	—	1,258
Proceeds from borrowings of VIEs	—	—	109	—	109
Repayments of debt and finance lease obligations (excluding VIEs)	(787)	(410)	(156)	—	(1,353)
Repayments of debt of VIEs	—	—	(6)	—	(6)
Intercompany financing activities	2,106	190	(775)	(1,521)	—
Purchases of common stock for treasury	(1,708)	—	—	—	(1,708)
Common stock dividends	(1,369)	—	(32)	32	(1,369)
Contributions to noncontrolling interests	—	—	32	—	32
Distributions to noncontrolling interests and unitholders of VLP	—	(215)	(68)	167	(116)
Other financing activities, net	2	(4)	(13)	—	(15)
Net cash provided by (used in) financing activities	(1,006)	59	(899)	(1,322)	(3,168)
Effect of foreign exchange rate changes on cash	—	—	(143)	—	(143)
Net increase (decrease) in cash and cash equivalents	(1,455)	110	(1,523)	—	(2,868)
Cash and cash equivalents at beginning of year	1,746	42	4,062	—	5,850
Cash and cash equivalents at end of year	\$ 291	\$ 152	\$ 2,539	\$ —	\$ 2,982

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

**Condensed Consolidating Statement of Cash Flows**  
**Year Ended December 31, 2017**  
**(in millions)**

	Valero Energy Corporation	Valero Energy Partners LP	Other Non- Guarantor Subsidiaries	Eliminations	Consolidated
Net cash provided by (used in) operating activities	\$ (73)	\$ (34)	\$ 5,720	\$ (131)	\$ 5,482
Cash flows from investing activities:					
Capital expenditures (excluding VIEs)	—	—	(1,269)	—	(1,269)
Capital expenditures of VIEs:					
DGD	—	—	(84)	—	(84)
Other VIEs	—	—	(26)	—	(26)
Deferred turnaround and catalyst cost expenditures (excluding VIEs)	—	—	(519)	—	(519)
Deferred turnaround and catalyst cost expenditures of DGD	—	—	(4)	—	(4)
Investments in unconsolidated joint ventures	—	—	(406)	—	(406)
Acquisitions of undivided interests	—	—	(72)	—	(72)
Intercompany investing activities	(4,002)	(187)	(6,696)	10,885	—
Other investing activities, net	—	—	(2)	—	(2)
Net cash used in investing activities	(4,002)	(187)	(9,078)	10,885	(2,382)
Cash flows from financing activities:					
Proceeds from debt issuances and borrowings (excluding VIEs)	—	380	—	—	380
Repayments of debt and finance lease obligations (excluding VIEs)	—	—	(15)	—	(15)
Repayments of debt of VIEs	—	—	(6)	—	(6)
Intercompany financing activities	6,704	(63)	4,244	(10,885)	—
Purchases of common stock for treasury	(1,372)	—	—	—	(1,372)
Common stock dividends	(1,242)	—	(10)	10	(1,242)
Contributions from noncontrolling interests	—	—	30	—	30
Distributions to noncontrolling interests and unitholders of VLP	—	(161)	(27)	121	(67)
Other financing activities, net	10	36	(26)	—	20
Net cash provided by financing activities	4,100	192	4,190	(10,754)	(2,272)
Effect of foreign exchange rate changes on cash	—	—	206	—	206
Net increase (decrease) in cash and cash equivalents	25	(29)	1,038	—	1,034
Cash and cash equivalents at beginning of year	1,721	71	3,024	—	4,816
Cash and cash equivalents at end of year	\$ 1,746	\$ 42	\$ 4,062	\$ —	\$ 5,850

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

**22. QUARTERLY FINANCIAL DATA (Unaudited)**

The following tables summarize quarterly financial data for the years ended December 31, 2019 and 2018 (in millions, except per share amounts).

	2019 Quarter Ended			
	March 31	June 30	September 30	December 31
Revenues	\$ 24,263	\$ 28,933	\$ 27,249	\$ 27,879
Gross profit (a)	533	1,123	1,119	2,003
Operating income	308	908	881	1,739
Net income	167	648	639	1,330
Net income attributable to Valero Energy Corporation stockholders	141	612	609	1,060
Earnings per common share	0.34	1.47	1.48	2.58
Earnings per common share – assuming dilution	0.34	1.47	1.48	2.58

	2018 Quarter Ended			
	March 31	June 30	September 30	December 31
Revenues	\$ 26,439	\$ 31,015	\$ 30,849	\$ 28,730
Gross profit (a)	1,062	1,535	1,451	1,546
Operating income	801	1,253	1,219	1,299
Net income	582	875	874	1,022
Net income attributable to Valero Energy Corporation stockholders	469	845	856	952
Earnings per common share	1.09	1.96	2.01	2.26
Earnings per common share – assuming dilution	1.09	1.96	2.01	2.24

(a) Gross profit is calculated as revenues less total cost of sales.

## **ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

### **ITEM 9A. CONTROLS AND PROCEDURES**

**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 December 31, 2019.

#### ***Internal Control over Financial Reporting.***

##### ***(a) Management's Report on Internal Control over Financial Reporting.***

The management report on Valero's internal control over financial reporting required by Item 9A appears in Item 8 on page 59 of this report, and is incorporated herein by reference.

##### ***(b) Attestation Report of the Independent Registered Public Accounting Firm.***

KPMG LLP's report on Valero's internal control over financial reporting appears in Item 8 beginning on page 62 of this report, and is incorporated herein by reference.

##### ***(c) 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.

### **ITEM 9B. OTHER INFORMATION**

None.

## **PART III**

### **ITEMS 10-14.**

The information required by Items 10 through 14 of Form 10-K is incorporated herein by reference to the definitive proxy statement for our 2020 annual meeting of stockholders. We expect to file the proxy statement with the SEC on or before March 31, 2020.

## PART IV

## ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) **1. Financial Statements.** The following consolidated financial statements of Valero Energy Corporation and its subsidiaries are included in Part II, Item 8 of this Form 10-K:

	<b>Page</b>
<a href="#">Management's report on internal control over financial reporting</a>	<a href="#">59</a>
<a href="#">Reports of independent registered public accounting firm</a>	<a href="#">60</a>
<a href="#">Consolidated balance sheets as of December 31, 2019 and 2018</a>	<a href="#">64</a>
<a href="#">Consolidated statements of income for the years ended December 31, 2019, 2018, and 2017</a>	<a href="#">65</a>
<a href="#">Consolidated statements of comprehensive income for the years ended December 31, 2019, 2018, and 2017</a>	<a href="#">66</a>
<a href="#">Consolidated statements of equity for the years ended December 31, 2019, 2018, and 2017</a>	<a href="#">67</a>
<a href="#">Consolidated statements of cash flows for the years ended December 31, 2019, 2018, and 2017</a>	<a href="#">68</a>
<a href="#">Notes to consolidated financial statements</a>	<a href="#">69</a>

**2. Financial Statement Schedules and Other Financial Information.** No financial statement schedules are submitted because either they are inapplicable or because the required information is included in the consolidated financial statements or notes thereto.

**3. Exhibits.** Filed as part of this Form 10-K are the following exhibits:

- [++2.01](#) — [Agreement and Plan of Merger, dated as of October 18, 2018, by and among Valero Energy Corporation; Forest Merger Sub, LLC; Valero Energy Partners LP; and Valero Energy Partners GP LLC—incorporated by reference to Exhibit 2.1 to Valero's Current Report on Form 8-K dated and filed October 18, 2018 \(SEC File No. 1-13175\).](#)
- 3.01 — Amended and Restated Certificate of Incorporation of Valero Energy Corporation, formerly known as Valero Refining and Marketing Company—incorporated by reference to Exhibit 3.1 to Valero's Registration Statement on Form S-1 (SEC File No. 333-27013) filed May 13, 1997.
- [3.02](#) — [Certificate of Amendment \(July 31, 1997\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 3.02 to Valero's Annual Report on Form 10-K for the year ended December 31, 2003 \(SEC File No. 1-13175\).](#)
- [3.03](#) — [Certificate of Merger of Ultramar Diamond Shamrock Corporation with and into Valero Energy Corporation dated December 31, 2001—incorporated by reference to Exhibit 3.03 to Valero's Annual Report on Form 10-K for the year ended December 31, 2003 \(SEC File No. 1-13175\).](#)
- [3.04](#) — [Amendment \(effective December 31, 2001\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 3.1 to Valero's Current Report on Form 8-K dated December 31, 2001, and filed January 11, 2002 \(SEC File No. 1-13175\).](#)
- [3.05](#) — [Second Certificate of Amendment \(effective September 17, 2004\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 3.04 to Valero's Quarterly Report on Form 10-Q for the quarter ended September 30, 2004 \(SEC File No. 1-13175\).](#)
- [3.06](#) — [Certificate of Merger of Premcor Inc. with and into Valero Energy Corporation effective September 1, 2005—incorporated by reference to Exhibit 2.01 to Valero's Quarterly Report on Form 10-Q for the quarter ended September 30, 2005 \(SEC File No. 1-13175\).](#)
- [3.07](#) — [Third Certificate of Amendment \(effective December 2, 2005\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 3.07 to Valero's Annual Report on Form 10-K for the year ended December 31, 2005 \(SEC File No. 1-13175\).](#)

- [3.08 — Fourth Certificate of Amendment \(effective May 24, 2011\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 4.8 to Valero’s Current Report on Form 8-K dated and filed May 24, 2011 \(SEC File No. 1-13175\).](#)
- [3.09 — Fifth Certificate of Amendment \(effective May 13, 2016\) to Restated Certificate of Incorporation of Valero Energy Corporation—incorporated by reference to Exhibit 3.02 to Valero’s Current Report on Form 8-K dated May 12, 2016, and filed May 18, 2016 \(SEC File No. 1-13175\).](#)
- [3.10 — 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 \(SEC File No. 1-13175\).](#)
- [4.01 — Indenture dated as of December 12, 1997 between Valero Energy Corporation and The Bank of New York—incorporated by reference to Exhibit 3.4 to Valero’s Registration Statement on Form S-3 \(SEC File No. 333-56599\) filed June 11, 1998.](#)
- [4.02 — First Supplemental Indenture dated as of June 28, 2000 between Valero Energy Corporation and The Bank of New York \(including Form of 7 3/4% Senior Deferrable Note due 2005\)—incorporated by reference to Exhibit 4.6 to Valero’s Current Report on Form 8-K dated June 28, 2000, and filed June 30, 2000 \(SEC File No. 1-13175\).](#)
- [4.03 — Indenture \(Senior Indenture\) dated as of June 18, 2004 between Valero Energy Corporation and Bank of New York—incorporated by reference to Exhibit 4.7 to Valero’s Registration Statement on Form S-3 \(SEC File No. 333-116668\) filed June 21, 2004.](#)
- [4.04 — Form of Indenture related to subordinated debt securities—incorporated by reference to Exhibit 4.8 to Valero’s Registration Statement on Form S-3 \(SEC File No. 333-116668\) filed June 21, 2004.](#)
- [4.05 — Indenture dated as of March 10, 2015 between Valero Energy Corporation and U.S. Bank National Association, as trustee—incorporated by reference to Exhibit 4.1 to Valero’s Registration Statement on Form S-3 \(SEC File No. 333-202635\) filed March 10, 2015.](#)
- [4.06 — Indenture, dated as of November 30, 2016, between Valero Energy Partners LP, as issuer, and U.S. Bank National Association, as trustee—incorporated by reference to Exhibit 4.1 to Valero Energy Partners LP’s Post-Effective Amendment No. 1 to Registration Statement on Form S-3 \(Registration File No. 333-208052\) filed November 30, 2016.](#)
- [4.07 — First Supplemental Indenture \(with Parent Guarantee\), dated as of January 10, 2019, among Valero Energy Partners LP, as issuer; Valero Energy Corporation, as parent guarantor; and U.S. Bank National Association, as trustee—incorporated by reference to Exhibit 4.2 to Valero’s Current Report on Form 8-K dated and filed January 10, 2019 \(SEC File No. 1-13175\).](#)
- [4.08 — Specimen Certificate of Common Stock—incorporated by reference to Exhibit 4.1 to Valero’s Registration Statement on Form S-3 \(SEC File No. 333-116668\) filed June 21, 2004.](#)
- [\\*4.09 — Description of Valero Energy Corporation common stock, \\$0.01 par value.](#)
- [+10.01 — Valero Energy Corporation Annual Bonus Plan, amended and restated as of February 28, 2018—incorporated by reference to Exhibit 10.01 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2017 \(SEC File No. 1-13175\).](#)
- [+10.02 — Valero Energy Corporation 2005 Omnibus Stock Incentive Plan, amended and restated as of October 1, 2005—incorporated by reference to Exhibit 10.02 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2009 \(SEC File No. 1-13175\).](#)
- [+10.03 — Valero Energy Corporation 2011 Omnibus Stock Incentive Plan, amended and restated February 25, 2016—incorporated by reference to Exhibit 10.04 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2015 \(SEC File No. 1-13175\).](#)
- [+10.04 — Valero Energy Corporation Deferred Compensation Plan, amended and restated as of January 1, 2008—incorporated by reference to Exhibit 10.04 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2008 \(SEC File No. 1-13175\).](#)
- [+10.05 — Valero Energy Corporation Amended and Restated Supplemental Executive Retirement Plan, amended and restated as of November 10, 2008—incorporated by reference to Exhibit 10.08 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2008 \(SEC File No. 1-13175\).](#)



- [+10.06 — Valero Energy Corporation Excess Pension Plan, as amended and restated effective December 31, 2011—incorporated by reference to Exhibit 10.10 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2011 \(SEC File No. 1-13175\).](#)
- [+10.07 — Form of Change of Control Severance Agreement \(Tier I\) between Valero Energy Corporation and executive officer—incorporated by reference to Exhibit 10.15 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2011 \(SEC File No. 1-13175\).](#)
- [+10.08 — Form of Change of Control Severance Agreement \(Tier II\) between Valero Energy Corporation and executive officer—incorporated by reference to Exhibit 10.16 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2013 \(SEC File No. 1-13175\).](#)
- [+10.09 — Form of Amendment \(dated January 7, 2013\) to Change of Control Severance Agreements \(to eliminate excise tax gross-up benefit\)—incorporated by reference to Exhibit 10.17 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2012 \(SEC File No. 1-13175\).](#)
- [+10.10 — Form of Change of Control Severance Agreement \(Tier II-A\) between Valero Energy Corporation and executive officer—incorporated by reference to Exhibit 10.02 to Valero’s Current Report on Form 8-K dated November 2, 2016, and filed November 7, 2016 \(SEC File No. 1-13175\).](#)
- [+10.11 — Schedule of Tier II-A Change of Control Agreements—incorporated by reference to Exhibit 10.11 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2018 \(SEC File No. 1-13175\).](#)
- [+10.12 — Form of Amendment \(dated January 17, 2017\) to Change of Control Severance Agreements, amending Section 9 thereof—incorporated by reference to Exhibit 10.01 to Valero’s Current Report on Form 8-K dated and filed January 17, 2017 \(SEC File No. 1-13175\).](#)
- [\\*+10.13 — Form of Performance Share Award Agreement pursuant to the Valero Energy Corporation 2011 Omnibus Stock Incentive Plan.](#)
- [+10.14 — Form of Stock Option Agreement pursuant to the Valero Energy Corporation 2011 Omnibus Stock Incentive Plan—incorporated by reference to Exhibit 10.21 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2011 \(SEC File No. 1-13175\).](#)
- [+10.15 — Form of Performance Stock Option Agreement pursuant to the Valero Energy Corporation 2011 Omnibus Stock Incentive Plan—incorporated by reference to Exhibit 10.21 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2012 \(SEC File No. 1-13175\).](#)
- [+10.16 — Form of Restricted Stock Agreement pursuant to the Valero Energy Corporation 2011 Omnibus Stock Incentive Plan—incorporated by reference to Exhibit 10.25 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2012 \(SEC File No. 1-13175\).](#)
- [\\*+10.17 — Long-Term Incentive Agreement dated as of December 18, 2019, between Valero Energy Corporation and R. Lane Riggs.](#)
- [+10.18 — Form of Stock Unit Award Agreement for Non-Employee Directors \(standard\)-incorporated by reference to Exhibit 10.01 to Valero’s Current Report on Form 8-K dated April 30, 2019, and filed May 1, 2019 \(SEC File No. 1-13175\).](#)
- [+10.19 — Form of Stock Unit Award Agreement for Non-Employee Directors \(with one-year hold provision\)-incorporated by reference to Exhibit 10.02 to Valero’s Current Report on Form 8-K dated April 30, 2019, and filed May 1, 2019 \(SEC File No. 1-13175\).](#)
- [10.20 — Fourth Amended and Restated Revolving Credit Agreement, dated as of March 19, 2019, among Valero Energy Corporation, as Borrower; JPMorgan Chase Bank, N.A., as Administrative Agent; and the lenders named therein—incorporated by reference to Exhibit 10.1 to Valero’s Current Report on Form 8-K dated March 19, 2019, and filed March 19, 2019 \(SEC File No. 1-13175\).](#)
- [14.01 — Code of Ethics for Senior Financial Officers—incorporated by reference to Exhibit 14.01 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2003 \(SEC File No. 1-13175\).](#)
- [\\*21.01 — Valero Energy Corporation subsidiaries.](#)
- [\\*23.01 — Consent of KPMG LLP dated February 26, 2020.](#)

- [\\*24.01](#) — [Power of Attorney dated February 26, 2020 \(on the signature page of this Form 10-K\).](#)
- [\\*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 \(under Section 906 of the Sarbanes-Oxley Act of 2002\).](#)
- [99.01](#) — [Audit Committee Pre-Approval Policy—incorporated by reference to Exhibit 99.01 to Valero’s Annual Report on Form 10-K for the year ended December 31, 2017 \(SEC File No. 1-13175\).](#)
- \*\*\*101.INS — Inline XBRL Instance Document—the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
- \*\*\*101.SCH — Inline XBRL Taxonomy Extension Schema Document.
- \*\*\*101.CAL — Inline XBRL Taxonomy Extension Calculation Linkbase Document.
- \*\*\*101.DEF — Inline XBRL Taxonomy Extension Definition Linkbase Document.
- \*\*\*101.LAB — Inline XBRL Taxonomy Extension Label Linkbase Document.
- \*\*\*101.PRE — Inline XBRL Taxonomy Extension Presentation Linkbase Document.
- \*\*\*104 — Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

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\* Filed herewith.

\*\* Furnished herewith.

\*\*\* Submitted electronically herewith.

+ Identifies management contracts or compensatory plans or arrangements required to be filed as an exhibit hereto.

++ Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. The registrant agrees to furnish supplementally a copy of any such omitted schedule to the SEC upon request.

Pursuant to paragraph 601(b)(4)(iii)(A) of Regulation S-K, the registrant has omitted from the foregoing listing of exhibits, and hereby agrees to furnish to the SEC upon its request, copies of certain instruments, each relating to debt not exceeding 10 percent of the total assets of the registrant and its subsidiaries on a consolidated basis.

## SIGNATURE

Pursuant to the requirements of Section 13 or 15(d) 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/ Joseph W. Gorder

*(Joseph W. Gorder)*

*Chairman of the Board  
and Chief Executive Officer*

Date: February 26, 2020

## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Joseph W. Gorder, Donna M. Titzman, and Jason W. Fraser, or any of them, each with power to act without the other, his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to sign any or all subsequent amendments and supplements to this Annual Report on Form 10-K, and to file the same, or cause to be filed the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each said attorney-in-fact and agent full power to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby qualifying and confirming all that said attorney-in-fact and agent or his substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
_____ /s/ Joseph W. Gorder (Joseph W. Gorder)	Chairman of the Board and Chief Executive Officer (Principal Executive Officer)	February 26, 2020
_____ /s/ Donna M. Titzman (Donna M. Titzman)	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 26, 2020
_____ /s/ H. Paulett Eberhart (H. Paulett Eberhart)	Director	February 26, 2020
_____ /s/ Kimberly S. Greene (Kimberly S. Greene)	Director	February 26, 2020
_____ /s/ Deborah P. Majoras (Deborah P. Majoras)	Director	February 26, 2020
_____ /s/ Donald L. Nickles (Donald L. Nickles)	Director	February 26, 2020
_____ /s/ Philip J. Pfeiffer (Philip J. Pfeiffer)	Director	February 26, 2020
_____ /s/ Robert A. Profusek (Robert A. Profusek)	Director	February 26, 2020
_____ /s/ Stephen M. Waters (Stephen M. Waters)	Director	February 26, 2020
_____ /s/ Randall J. Weisenburger (Randall J. Weisenburger)	Director	February 26, 2020
_____ /s/ Rayford Wilkins, Jr. (Rayford Wilkins, Jr.)	Director	February 26, 2020

**DESCRIPTION OF SECURITIES  
REGISTERED PURSUANT TO SECTION 12 OF THE  
SECURITIES EXCHANGE ACT OF 1934**

*As of February 26, 2020, Valero Energy Corporation (the “**Company**”) had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: common stock, par value 0.01 per share (“**common stock**”). The following description of the Company’s common stock is a summary and is not complete. For a complete description, please refer to our certificate of incorporation (as amended to date, our “**Certificate of Incorporation**”) and bylaws (as amended to date, our “**Bylaws**”), which we have incorporated by reference as exhibits to the Company’s Annual Report on Form 10-K for the year ended December 31, 2019. References to “we,” “our” and “us” refer to the Company, unless the context otherwise requires. References to “stockholders” refer to holders of our common stock, unless the context otherwise requires.*

**Description of Common Stock**

Our authorized common stock consists of 1,200,000,000 shares, par value \$0.01 per share. Each share of common stock is entitled to participate equally in dividends as and when declared by our board of directors. The payment of dividends on our common stock may be limited by obligations we may have to holders of any preferred stock.

Common stockholders are entitled to one vote for each share held on all matters submitted to them. Our common stock does not have cumulative voting rights, meaning that holders of a majority of the shares of common stock voting for the election of directors can elect all the directors if they choose to do so.

If we liquidate or dissolve our business, the holders of common stock will share ratably in the distribution of assets available for distribution to stockholders after creditors are paid and preferred stockholders receive their distributions. The shares of common stock have no preemptive rights and are not convertible, redeemable or assessable or entitled to the benefits of any sinking fund.

All issued and outstanding shares of common stock are fully paid and nonassessable.

**Anti-Takeover Provisions**

The provisions of the Delaware General Corporation Law (as amended to date, the “**DGCL**”), our Certificate of Incorporation and our Bylaws, summarized below may have an anti-takeover effect and may delay, deter or prevent a tender offer or takeover attempt that a stockholder might consider in his or her best interest, including those attempts that might result in a premium over the market price for our common stock.

**Preferred Stock**

Our authorized preferred stock consists of 20,000,000 shares, par value \$0.01 per share, issuable in series. No shares of preferred stock were outstanding as of December 31, 2019. Our board of directors can, without action by stockholders, issue one or more series of preferred stock. The board can determine for each series the number of shares, designation, relative voting rights, dividend rates, liquidation and other rights, preferences and limitations. In some cases, the issuance of preferred stock could delay or discourage a change in control of us.

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The issuance of preferred stock, while providing desired flexibility in connection with possible acquisitions and other corporate purposes, could adversely affect the voting power of holders of our common stock. It could also affect the likelihood that holders of our common stock will receive dividend payments and payments upon liquidation.

### **Fair Price Provision**

Our Certificate of Incorporation contains a fair price provision. Mergers, consolidations and other business combinations involving us and an “interested stockholder” require the approval of holders of at least 66 2/3% of our outstanding voting stock, including 66 2/3% of our outstanding voting stock not owned by the interested stockholder or its affiliates. Interested stockholders include any holder of 15% or more of our outstanding voting stock. The 66 2/3% voting requirement does not apply, however, if the “continuing directors,” as defined in our Certificate of Incorporation, approve the business combination, or the business combination meets other specified conditions.

### **Liability of Our Directors**

As permitted by the DGCL, we have included in our Certificate of Incorporation a provision that limits our directors’ liability for monetary damages for breach of their fiduciary duty of care to us and our stockholders. The provision does not affect the liability of a director:

- for any breach of his/her duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- for the declaration or payment of unlawful dividends or unlawful stock repurchases or redemptions; and
- for any transaction from which the director derived an improper personal benefit.

This provision also does not affect a director’s responsibilities under any other laws, such as the federal securities laws or state or federal environmental laws.

### **Stockholder Proposals and Director Nominations**

Our stockholders can submit stockholder proposals and nominate candidates for our board of directors if the stockholders follow advance notice procedures described in our Bylaws.

Generally, stockholders must submit a written notice between 90 and 120 days before the first anniversary of the date of our previous year’s annual stockholders’ meeting. To nominate directors, the notice must include, among certain other information further described in our Bylaws, the name and address of the stockholder and any Stockholder Associated Person (as defined in our Bylaws), the class or series and number of shares beneficially owned by the stockholder and any Stockholder Associated Person, information about the nominee, the stockholder and any Stockholder Associated Person required by the Securities and Exchange Commission (the “**SEC**”), a signed and completed questionnaire with respect to the background and qualification of the nominee, and a description of certain arrangements, understandings and relationships between the stockholder and any Stockholder Associated Person, on the one hand, and the nominee, on the other hand. To make stockholder proposals, other than those related to the nomination of a director, the notice must include, among certain other information further described in our Bylaws, a description of the proposal, the reasons for bringing the proposal before the meeting, the name and address of the stockholder and any Stockholder Associated Person, any information about the stockholder and any Stockholder Associated Person required by the SEC, the class or series and number of shares owned by the stockholder and any

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Stockholder Associated Person, any material interest of the stockholder and any Stockholder Associated Person in the proposal, a description of any arrangements or understandings with respect to the proposal that exist between the stockholder and any Stockholder Associated Person and any other person, and a description of all agreements, arrangements or understandings by, or on behalf of, such stockholder or Stockholder Associated Person, the effect or intent of which is to mitigate loss, manage risk or benefit from changes in the share price of the Company's common stock, or maintain, increase or decrease the voting power of the stockholder or Stockholder Associated Person with respect thereto.

In each case, if we have changed the date of the annual meeting to more than 30 days before or 60 days after the anniversary date of our previous year's annual stockholders' meeting, stockholders must submit the notice between 90 and 120 days prior to such annual meeting or no later than 10 days after the day we make public the date of the annual meeting.

Director nominations and stockholder proposals that are late or that do not include all required information may be rejected. This could prevent stockholders from bringing certain matters before an annual meeting, including making nominations for directors.

### **Delaware Anti-takeover Statute**

We are a Delaware corporation and are subject to Section 203 of the DGCL. In general, Section 203 prevents us from engaging in a business combination with an "interested stockholder" (generally, a person owning 15% or more of our outstanding voting stock) for three years following the time that person becomes a 15% stockholder unless one of the following is satisfied:

- before that person became a 15% stockholder, our board of directors approved the transaction in which the stockholder became a 15% stockholder or approved the business combination;
- upon completion of the transaction that resulted in the stockholder's becoming a 15% stockholder, the stockholder owned at least 85% of our voting stock outstanding at the time the transaction began (excluding stock held by directors who are also officers and by employee stock plans that do not provide employees with the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer); and
- after the transaction in which that person became a 15% stockholder, the business combination is approved by our board of directors and authorized at a stockholders' meeting by at least two-thirds of the outstanding voting stock not owned by the 15% stockholder.

Under Section 203, these restrictions also do not apply to certain business combinations proposed by a 15% stockholder following the disclosure of an extraordinary transaction with a person who was not a 15% stockholder during the previous three years or who became a 15% stockholder with the approval of a majority of our directors. This exception applies only if the extraordinary transaction is approved or not opposed by a majority of our directors who were directors before any person became a 15% stockholder in the previous three years, or the successors of these directors that are elected or recommended for election by a majority of such directors.

### **Other Provisions**

Our Certificate of Incorporation also provides that:

- stockholders may act only at an annual or special meeting and not by written consent;
  - an 80% vote of the outstanding voting stock is required for the stockholders to amend our Bylaws; and
-

- an 80% vote of the outstanding voting stock is required to amend our Certificate of Incorporation with respect to certain matters, including those described in the first two bullet points above.

**Transfer Agent and Registrar**

Computershare Investor Services, LLC, is our transfer agent and registrar.

**Stock Exchange Listing**

Our common stock is listed on the New York Stock Exchange and trades under the symbol “VLO.”



## PERFORMANCE SHARE AGREEMENT

This Performance Share Agreement (the “Agreement”) is entered into as of Oct. 30, 2019, by and between **Valero Energy Corporation**, a Delaware corporation (“Valero”), and [name], a participant (the “Participant”) in Valero’s **2011 Omnibus Stock Incentive Plan** (as may be amended, the “Plan”), pursuant to and subject to the provisions of the Plan.

1. **Grant of Performance Shares.** Valero hereby grants to Participant [no. of shares] Performance Shares pursuant to Section 6.7 of the Plan. The Performance Shares represent rights to receive shares of Common Stock of Valero, subject to the terms and conditions of this Agreement and the Plan.
  2. **Vesting and Delivery of Shares.**
    - A. **Vesting.** The Performance Shares granted hereunder shall vest over a period of three years in equal, one-third increments with the first increment vesting on the date of the regularly scheduled meeting of the Board’s Compensation Committee in January 2021, and the second and third increments vesting on the Committee’s meeting dates in January 2022 and January 2023, respectively (each of these vesting dates is referred to as a “Normal Vesting Date”); any award(s) of shares of Common Stock resulting in connection with such vesting shall be subject to the Compensation Committee’s verification of attainment of the Performance Objectives described in Section 4 below. If the Committee is unable to meet in January of a given year, then the Normal Vesting Date for that year will be the date not later than March 31 of that year as selected by the Compensation Committee.
    - B. **Rights.** Until shares of Common Stock are actually issued to Participant (or his or her estate) in settlement of the Performance Shares, neither Participant nor any person claiming by, through or under Participant shall have any rights as a stockholder of Valero (including, without limitation, voting rights or any right to receive dividends or other distributions except as expressly provided in this Agreement) with respect to such shares.
    - C. **Distribution.** Any shares of Common Stock to be distributed under the terms of this Agreement shall be distributed as soon as administratively practicable after Performance Objectives described in Section 4 below have been verified by the Compensation Committee, but not later than two-and-one-half months following the end of the year in which such verification occurred.
  3. **Performance Period.** Except as provided below with respect to a Change of Control (as defined in the Plan), the “Performance Period” for any Performance Shares eligible to vest on any Normal Vesting Date shall be as follows:
    - A. **First Segment.** The Performance Period for the first one-third vesting of Performance Shares (those vesting on the Normal Vesting Date in January 2021) shall be the calendar year ending on December 31, 2020.
    - B. **Second Segment.** The Performance Period for the second one-third vesting of Performance Shares (those vesting on the Normal Vesting Date in January 2022) shall be the two calendar years ending December 31, 2021.
    - C. **Third Segment.** The Performance Period for the final one-third vesting of Performance Shares (those vesting on the Normal Vesting Date in January 2023) shall be the three calendar years ending December 31, 2022.
-

#### 4. Performance Objectives.

- A. **Total Shareholder Return.** Total Shareholder Return (“TSR”) will be compiled for a peer group of companies (the “Target Group”) for the Performance Period immediately preceding each Normal Vesting Date. TSR for each such company is measured by dividing (A) the sum of (i) the dividends on the common stock of such company during the Performance Period, assuming dividend reinvestment, and (ii) the difference between the average closing price of a share of such company’s common stock for the 15 trading days ending December 31 at the end of the Performance Period and the average closing price of such shares for the 15 trading days ending December 31 immediately prior to the beginning of the Performance Period (appropriately adjusted for any stock dividend, stock split, spin-off, merger or other similar corporate events), by (B) the average closing price of a share of such company’s common stock for the 15 trading days ending December 31 immediately prior to the beginning of the Performance Period.
- B. **Target Group.** The applicable Target Group shall be selected by the Compensation Committee, acting in its sole discretion, each year not later than 90 days after the commencement of the calendar year preceding each Normal Vesting Date. The same Target Group shall be used to measure TSR with regard to all Performance Shares vesting under all Performance Award Agreements of Valero having a similar Normal Vesting Date.
- C. **Performance Ranking and Award of Common Shares.** For each Performance Period, the TSR for Valero and each company in the Target Group shall be arranged by rank from highest performer to lowest performer according to the TSR achieved by each company. Shares of Common Stock will be awarded to Participant in accordance with Valero’s percentile ranking within the Target Group. The number of shares of Common Stock, if any, that Participant will be entitled to receive in settlement of the vested Performance Shares will be determined on each Normal Vesting Date and, subject to the provisions of the Plan and this Agreement, on such Normal Vesting Date, the following percentage of the vested Performance Shares will be awarded as shares of Common Stock to the Participant when Valero’s TSR during the Performance Period falls within the following percentiles (“Percentiles”):

Ranking	Percentile	Payout
1	100.0%	200.0%
2	90.0%	200.0%
3	80.0%	175.0%
4	70.0%	150.0%
5	60.0%	125.0%
6	50.0%	100.0%
7	40.0%	75.0%
8	30.0%	50.0%
9	20.0%	25.0%
10	10.0%	0.0%
11	0.0%	0.0%

- D. **Unearned Shares.** Any Performance Shares not awarded as shares of Common Stock on a Normal Vesting Date will expire and be forfeited; such Performance Shares may not be carried forward for any additional Performance Period.

5. **Dividend Equivalent Award.** In addition to the Performance Shares granted in Section 1, the Participant is granted a Dividend Equivalent Award payable in shares of Common Stock, as provided herein. On each Normal Vesting Date, the amount of dividends paid to holders of Common Stock during the applicable Performance Period shall be determined with respect to the Participant's Performance Shares that are vesting on that Normal Vesting Date — calculated as if the Performance Shares were outstanding shares of Common Stock (the resulting value being hereafter referred to as the "Target Dividend Equivalent Value"). The Target Dividend Equivalent Value shall then be subject to further calculation according to Valero's TSR ranking during the Performance Period as prescribed in Section 4.C. above (i.e., payout from 0% to 200% depending on Valero's TSR ranking). The number of shares of Common Stock payable to Participant with respect to the Dividend Equivalent Award is equal to (x) the Target Dividend Equivalent Value multiplied by the Performance Period's payout percentage calculated per Section 4.C., divided by (y) the Fair Market Value of the Common Stock on the Normal Vesting Date (the resulting number being rounded up to the nearest whole number of shares). See Exhibit A for an example of this calculation.

6. **Termination of Employment.**

A. **Voluntary Termination, Termination for "Cause," and Early Retirement.** If Participant's employment is

- (i) voluntarily terminated by the Participant (other than through retirement at age 60+, death or disability), including termination in connection with Participant's voluntary early retirement (i.e., prior to age 60),
- (ii) terminated by Valero for "cause" (as defined pursuant to the Plan),

then those Performance Shares that are outstanding and have not vested as of the effective date of termination shall thereupon be forfeited.

B. **Retirement.** If a Participant's employment is terminated through his or her retirement when the Participant is age 60 or older, then any Performance Shares that (i) have not theretofore vested or been forfeited, and (ii) were granted at least one year prior to the Participant's effective date of retirement, shall continue to remain outstanding and shall vest on the Normal Vesting Dates according to their original vesting schedule.

But any outstanding Performance Shares that were granted within one year of such Participant's effective date of retirement shall be prorated as follows. The outstanding Performance Shares shall be prorated based on the number of months worked from the date of grant to the Participant's retirement date (rounding upward), and the prorated number of Performance Shares shall thereafter vest on the Normal Vesting Dates according to their original vesting schedule. *Example:*

- 13,530 Performance Shares granted on October 30, 2019,
- Participant retires at age 60+ effective April 15, 2020,
- working period is calculated as 6 months (5 full months plus partial month rounding upward to 6 months),
- original grant is adjusted by 6/12ths (50%) resulting in 6,765 Performance Shares to vest according to their original vesting schedule.

C. **Death, Disability, Involuntary Termination Other Than for "Cause," and Change of Control.** If a Participant's employment is terminated (i) through death or disability, or (ii) by Valero other than for cause (as determined pursuant to the Plan), or (iii) as a result of a Change of Control (as described in the Plan) (each of the foregoing is hereafter referred to as a "Trigger")

Date”), then each Performance Period with respect to any Performance Shares that have not vested or been forfeited shall be terminated effective as of such Trigger Date; the TSR for Valero and for each company in the Target Group shall be determined for each such shortened Performance Period and the percentage of Performance Shares to be awarded as shares of Common Stock for each such shortened Performance Period shall be determined in accordance with Section 4 and shall be distributed as soon as administratively practicable thereafter.

- (i) For purposes of determining the number of Performance Shares to be received as of any Trigger Date, the Target Group as most recently determined by the Compensation Committee prior to the Trigger Date shall be used.
- (ii) If the Trigger Date is the result of a Change of Control, then the number of shares of Common Stock to be awarded to the Participant shall be prorated commensurate with the length of service of the Participant during each Performance Period. See Exhibit B for an example of this calculation.

7. **Cash Payment Election.** Effective on any Normal Vesting Date (or Trigger Date under Section 6.C), the Participant (or the Participant’s estate under Section 6.C) may elect to receive up to 50% of the after-tax value of the aggregate number of shares of Common Stock earned on such Normal Vesting Date (or Trigger Date) in cash, with the remainder paid in shares of Common Stock.

*Example:*

- following the calculation of Valero’s performance against the Target Group for the two-year performance period ending December 31, 2021, it is determined that the Participant is entitled to receive 4,000 shares of Common Stock on the Normal Vesting Date occurring in January 2022 (the “2022 Normal Vesting Date”),
- the 4,000 shares have an aggregate tax value of \$300,000 (4,000 shares times an assumed \$75 FMV per share on the 2022 Normal Vesting Date), and the Participant has made a tax withholding election of 39.6%,
- the after-tax value of the 4,000 shares of Common Stock awarded on the 2022 Normal Vesting Date is \$181,200 (\$300,000 times 60.4%),
- the Participant may elect to receive up to \$90,600 (\$181,200 times 50%) in cash on the 2022 Normal Vesting Date.

8. **Plan Incorporated by Reference.** The Plan is incorporated into this Agreement by this reference and is made a part hereof for all purposes. Capitalized terms not otherwise defined in this Agreement shall have the meaning specified in the Plan.

9. **No Assignment.** This Agreement and the Participant’s interest in the Performance Shares granted by this Agreement are of a personal nature, and, except as expressly permitted under the Plan, Participant’s rights with respect thereto may not be sold, mortgaged, pledged, assigned, transferred, conveyed or disposed of in any manner by Participant, except by an executor or beneficiary pursuant to a will or pursuant to the laws of descent and distribution. Any such attempted sale, mortgage, pledge, assignment, transfer, conveyance or disposition is void, and Valero will not be bound thereby.

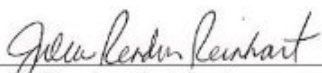
10. **Integration.** This Agreement constitutes the entire agreement of the parties relating to the transactions contemplated hereby, and supersedes all provisions and concepts contained in all prior contracts or agreements between the Participant and Valero, including that certain Change of Control Severance Agreement (“COC Agreement”) between Participant and Valero. For avoidance of doubt, Participant acknowledges that in the context of a Change of Control of Valero, the terms of this

Agreement shall prevail over the terms of the COC Agreement with respect to the vesting of the Performance Shares granted under this Agreement.

11. **Successors.** This Agreement shall be binding upon any successors of Valero and upon the beneficiaries, legatees, heirs, administrators, executors, legal representatives, successors and permitted assigns of Participant.
12. **Code Section 409A.** This Agreement is intended to comply, and shall be administered consistently in all respects, with Section 409A of the Internal Revenue Code of 1986, as amended (the “Code”), and the regulations and additional guidance promulgated thereunder to the extent applicable. Accordingly, Valero shall have the authority to take any action, or refrain from taking any action, with respect to this Agreement that is reasonably necessary to ensure compliance with Code Section 409A (provided that Valero shall choose the action that best preserves the value of payments and benefits provided to Participant under this Agreement that is consistent with Code Section 409A), and the parties agree that this Agreement shall be interpreted in a manner that is consistent with Code Section 409A. In furtherance, but not in limitation of the foregoing:
  - (a) in no event may Participant designate, directly or indirectly, the calendar year of any payment to be made hereunder;
  - (b) to the extent the Participant is a “specified employee” within the meaning of Code Section 409A, payments, if any, that constitute a “deferral of compensation” under Code Section 409A and that would otherwise become due during the first six months following Participant’s termination of employment shall be delayed and all such delayed payments shall be paid in full in the seventh month after such termination date, *provided that* the above delay shall not apply to any payment that is excepted from coverage by Code Section 409A, such as a payment covered by the short-term deferral exception described in Treasury Regulations Section 1.409A-1(b)(4);
  - (c) notwithstanding any other provision of this Agreement, a termination, resignation or retirement of Participant’s employment hereunder shall mean and be interpreted consistent with a “separation from service” within the meaning of Code Section 409A;
  - (d) terms defined in this section will have the meanings given such terms under Section 409A if and to the extent required to comply with Section 409A. Notwithstanding any other provision hereof, Valero makes no representations or warranties and will have no liability to Participant or any other person if any provision of or payment under this Agreement is determined to constitute deferred compensation subject to Section 409A but does not satisfy the conditions of Section 409A.

Executed effective as of the date first written above.

**VALERO ENERGY CORPORATION**

by:   
**Julia Rendon Reinhart,**  
Senior Vice President-Human Resources & Administration

\_\_\_\_\_  
[name], Participant

## **Exhibit A**

### **Example of Potential Payout of Dividend Equivalent Award in Shares of Common Stock (per Section 5 of the Agreement)**

#### **Assumptions and Calculations (for illustration purposes only):**

1. Assume the Participant was granted 12,000 Performance Shares on October 31, 2019.
2. Assume the Normal Vesting Date for the second segment of these Performance Shares is January 22, 2022. On that date 4,000 Performance Shares (12,000 / 3 = 4,000) vest with respect to the two-year Performance Period ending December 31, 2021.
3. Assume the cumulative amount of dividends paid to holders of Common Stock during the Performance Period is \$7.20 per share (determined as follows).

dividends paid in 1Q20	\$0.90
2Q20	\$0.90
3Q20	\$0.90
4Q20	\$0.90
1Q21	\$0.90
2Q21	\$0.90
3Q21	\$0.90
4Q21	\$0.90
	<hr/>
	\$7.20 per share

4. The “Target Dividend Equivalent Value” is \$28,800 (4,000 Performance Shares vesting, multiplied by \$7.20 accumulated dividends per share).
5. Valero’s TSR ranking for the Performance Period is determined (per Section 4.C.) to generate a payout of 150.0%.
6. The Fair Market Value of the Common Stock on the vesting date is \$75.00.
7. Based on the foregoing, the total number of shares of Common Stock earned by the Participant on the vesting date is 6,576. The calculation is illustrated below.

<u>Section 4.C.</u>	4,000	Performance Shares vesting
	<u>x 150.0%</u>	multiply by TSR ranking payout percentage
	<u>6,000</u>	common shares earned for Performance Shares
 <u>Section 5.</u>	 \$ 28,800.00	 Target Dividend Equivalent Value
	<u>x 150.0%</u>	multiply by TSR ranking payout percentage
	\$ 43,200.00	dividend equivalent based on segment performance
	<u>/ \$75.00</u>	divided by FMV per share
	<u>576</u>	common shares earned for Dividend Equivalent Award (rounded up)
	 <u><u>6,576</u></u>	 total common shares earned on vesting date

## **Exhibit B**

### **Example of Potential Payout in a Change of Control Context (per Section 6.C.(ii) of the Agreement)**

#### **Assumptions and Calculations (for illustration purposes only):**

1. Assume the Participant was granted 15,000 Performance Shares on October 30, 2019.
2. Assume Participant's employment is terminated on June 30, 2020 as a result of a Change of Control.
3. Per Section 6.C. of the Agreement, all Performance Periods for all segments (First Segment, Second Segment, Third Segment (See Section 3)) are shortened to end on June 30, 2020.
4. As a result of the TSR calculations of Section 4.C., Valero is ranked in the 90.0 percentile for each shortened Performance Period, resulting in a 200% payout of common shares in each instance.
5. Payout of common shares to the Participant is prorated based on the Participant's length of service during the original Performance Periods.

#### **First Segment calculation.**

15,000 / 3 = 5,000 performance shares.

6 months of service in the 12-month Performance Period.

5,000 perf. shares

x 200% payout

10,000 common shares x 6 / 12 =

5,000 common shares

#### **Second Segment calculation.**

15,000 / 3 = 5,000 performance shares.

6 months of service in the 24-month Performance Period.

5,000 perf. shares

x 200% payout

10,000 common shares x 6 / 24 =

2,500 common shares

#### **Third Segment calculation.**

15,000 / 3 = 5,000 performance shares.

6 months of service in the 36-month Performance Period.

5,000 perf. shares

x 200% payout

10,000 common shares x 6 / 36 =

1,667 common shares

Total payout

9,167 common shares



## LONG-TERM INCENTIVE AGREEMENT

This Long-Term Incentive Agreement (the “Agreement”) is entered into as of **December 18, 2019** (the “Effective Date”) by and between **Valero Energy Corporation**, a Delaware corporation (“Valero”), and **R. LANE RIGGS**, Executive Vice President and Chief Operating Officer (the “Officer”).

*Whereas*, the Compensation Committee of the Board of Directors of Valero has approved a long-term incentive compensation arrangement between Valero and the Officer.

*Now, therefore*, the parties hereto wish to memorialize the terms and conditions of the compensation arrangement by the execution and delivery of this Agreement, and the parties hereby agree as follows.

1. **Certain Defined Terms.** Capitalized terms used herein but not otherwise defined herein shall have the meanings given to them in the Valero Energy Corporation 2011 Omnibus Stock Incentive Plan (the “Plan”).
2. **Long-Term Incentive Awards.** For so long as the Officer remains an employee of Valero (or one of its Affiliates) continuously from the Effective Date through each of the grant dates listed in the table below (each, a “Grant Date”), Valero agrees to grant to the Officer, on each Grant Date, shares of Restricted Stock (“Restricted Shares”) having the respective aggregate Fair Market Value listed in the table below. The Restricted Shares shall vest (become nonforfeitable) in increments, subject to Section 4 below, on the vesting dates (each, a “Vesting Date”) scheduled below.

<u>Grant Date</u>	<u>Aggregate FMV</u>	<u>Vesting Dates</u>
Dec. 18, 2019	\$1,000,000	in equal 1/3 increments on: Dec. 18, 2020 Dec. 18, 2021 Dec. 18, 2022
Feb. 26, 2020	\$2,000,000	in equal 1/3 increments on: Feb. 26, 2021 Feb. 26, 2022 Feb. 26, 2023
Feb. 23, 2021	\$2,000,000	in equal 1/2 increments on: Feb. 23, 2022 Feb. 23, 2023

3. **Restricted Stock Agreements.** On each Grant Date, Valero and the Officer shall enter into a Restricted Stock Agreement substantially in the form of the agreement attached hereto as Exhibit A.

4. **Termination of Employment.**

A. **Voluntary Termination, Termination for “Cause”.** If the Officer’s employment is:

- (i) voluntarily terminated by the Officer, including termination in connection with the Officer’s voluntary early retirement (i.e., prior to age 60), or
- (ii) terminated by Valero for “Cause” (as defined in the Plan),

then those Restricted Shares that are outstanding and have not vested as of the effective date of the Officer’s termination of employment shall thereupon be forfeited.

B. **Death or Disability.** If the Officer’s employment is terminated as a result of his death or disability, then any outstanding Restricted Shares held by the Officer that remain unvested as of the date of his death or disability shall immediately vest and become non-forfeitable as of such date.

5. **Cash Payment Election.** Effective on any Vesting Date, the Officer may elect to receive up to 50% of the after-tax value of the aggregate number of shares of Restricted Stock vesting on such Vesting Date in cash, with the remainder paid in shares of Common Stock. *Example:*

- assume that the Officer is entitled to receive 4,000 shares of Common Stock on a Vesting Date,
- assume that the 4,000 shares have an aggregate tax value of \$380,000 (4,000 shares times an assumed \$95 FMV per share on the Vesting Date), and the Officer has made a tax withholding election of 39.6%,
- the after-tax value of the 4,000 shares of Common Stock awarded on the Vesting Date is \$229,520 (\$380,000 times 60.4%),
- the Officer may elect to receive up to \$114,760 (\$229,520 times 50%) in cash on the Vesting Date.

6. **No Assignment.** This Agreement and the Officer’s rights and interests granted by this Agreement are of a personal nature, and, except as expressly permitted under the Plan, Officer’s rights with respect thereto may not be sold, mortgaged, pledged, assigned, transferred, conveyed or disposed of in any manner by Officer. Any such attempted sale, mortgage, pledge, assignment, transfer, conveyance or disposition is void, and Valero will not be bound thereby.

7. **Interpretation of Terms.** The terms and conditions of this Agreement shall prevail over any conflicting provisions in the Plan.

8. **Employment at Will.** This Agreement is not an employment contract. Neither this Agreement nor any Restricted Stock Agreement entered into pursuant to this Agreement shall confer upon the Officer any right with respect to the continuance of the Officer’s employment by Valero or any of its subsidiaries or affiliates.

9. **Successors.** This Agreement shall be binding upon any successors of Valero and upon the beneficiaries, legatees, heirs, administrators, executors, legal representatives, successors and permitted assigns of Officer.

10. **Governing Law.** This Agreement shall be construed under and governed by the laws of the State of Texas.

Executed as of the Effective Date stated above.

**VALERO ENERGY CORPORATION**

by: /s/ Joseph W. Gorder  
**Joseph W. Gorder**  
Chief Executive Officer

/s/ R. Lane Riggs  
**R. LANE RIGGS**

## Exhibit A

### Form of RESTRICTED STOCK AGREEMENT

This Restricted Stock Agreement (this “Agreement”) is between **Valero Energy Corporation** (“Valero”), and **R. Lane Riggs**, an employee of Valero or one of its Affiliates (“Employee”), who agree as follows:

1. Introduction. Pursuant to that certain Long-Term Incentive Agreement dated as of Dec. 18, 2019 (the “LTI Agreement”) and the Valero Energy Corporation [ ] Omnibus Stock Incentive Plan (as may be amended, the “Plan”), on «**Grant\_Date**», Employee was awarded «**Shares\_Granted**» shares of Common Stock of Valero under the Plan as Restricted Stock (“Restricted Stock”). The parties hereby enter into this Agreement to evidence the terms, conditions and restrictions applicable to the Restricted Stock.

2. The Plan, the LTI Agreement, Restrictions, Vesting. The terms and conditions of the Plan and the LTI Agreement are incorporated herein by reference for all purposes, and Employee hereby agrees to the terms and conditions stated therein applicable to the Restricted Stock and the rights and powers of Valero and the Committee as provided therein. In addition, Employee agrees as follows:

2.01 Except to the extent otherwise provided in the Plan or this Agreement, shares of Restricted Stock issued to Employee under the Plan may not be sold, exchanged, pledged, hypothecated, transferred, garnished or otherwise disposed of or alienated prior to vesting.

2.02 Except to the extent otherwise provided in the Plan, Employee’s rights to and interest in the shares of Restricted Stock described herein shall vest and accrue to Employee in the following increments: [insert vesting schedule applicable to the Grant].

2.03 Employee agrees that in lieu of certificates representing Employee’s shares of Restricted Stock, the Restricted Stock and any Shares issuable in connection with their vesting may be issued in uncertificated form pursuant to the Direct Registration Service of Valero’s stock transfer agent.

2.04 If, as the result of a stock split, stock dividend, combination of shares or any other change, including an exchange of securities for any reason, the Employee shall be entitled to new or additional or different shares of stock or securities, such stock or securities shall be subject to the terms and conditions of the Plan and this Agreement.

3. Dividends and Voting. The outstanding shares of Restricted Stock shall enjoy the rights and privileges (including voting rights and the right to receive dividends) described in Section 6.4(b)(ii) of the Plan.

4. Limitation. The Employee shall have no rights with respect to any shares of Restricted Stock not expressly conferred by the LTI Agreement, the Plan or this Agreement.

5. Miscellaneous. All capitalized terms contained in this Agreement shall have the definitions set forth in the LTI Agreement or the Plan unless otherwise defined herein. This Agreement shall be binding upon the parties hereto and their respective beneficiaries, heirs, administrators, executors, legal representatives and successors.

6. Code Section 409A. The issuance of shares under this Award shall be made on or as soon as reasonably practical following the applicable date of vesting, but in any event no later than the 15th day of the third month following the end of the year in which the applicable date of vesting occurs. With respect to the receipt of dividends, the payment of dividends shall be made by the last day of the fiscal quarter during which dividends on Valero common stock are paid, but in any event by no later than the 15th day of the month following the end of the year in which the applicable dividends on Valero common stock are paid. This Agreement and the award evidenced hereby are intended to comply, and shall be administered consistently, in all respects with Section 409A of the Internal Revenue Code and the regulations promulgated thereunder to the extent applicable to the Employee. If necessary in order to ensure such compliance, this Agreement may be reformed consistent with guidance issued by the Internal Revenue Service.

Effective as of the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

VALERO ENERGY CORPORATION

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name:

title:

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**R. Lane Riggs**

Employee

Exhibit A

**Subsidiaries of Valero Energy Corporation  
as of February 13, 2020**

<u>Name of Entity</u>	<u>State of Incorporation/Organization</u>
AIR BP-PBF DEL PERU SAC	Peru
BELFAST STORAGE LTD	Northern Ireland
CANADIAN ULTRAMAR COMPANY	Nova Scotia
COLONNADE TEXAS INSURANCE COMPANY, LLC	Texas
COLONNADE VERMONT INSURANCE COMPANY	Vermont
DIAMOND ALTERNATIVE ENERGY, LLC	Delaware
DIAMOND ALTERNATIVE ENERGY OF CANADA INC.	Canada
DIAMOND GREEN DIESEL HOLDINGS LLC	Delaware
DIAMOND GREEN DIESEL LLC	Delaware
DIAMOND K RANCH LLC	Texas
DIAMOND OMEGA COMPANY, L.L.C.	Delaware
DIAMOND SHAMROCK REFINING COMPANY, L.P.	Delaware
DIAMOND UNIT INVESTMENTS, L.L.C.	Delaware
DSRM NATIONAL BANK	U.S.A.
ENTERPRISE CLAIMS MANAGEMENT, INC.	Texas
GCP LOGISTICS COMPANY LLC	Delaware
GOLDEN EAGLE ASSURANCE LIMITED	British Columbia
HAMMOND MAINLINE PIPELINE LLC	Delaware
HUNTWAY REFINING COMPANY	Delaware
MAINLINE PIPELINES LIMITED	England and Wales
MAPLE ETHANOL LTD.	Virgin Islands (U.K.)
MICHIGAN REDEVELOPMENT GP, LLC	Delaware
MICHIGAN REDEVELOPMENT, L.P.	Delaware
MRP PROPERTIES COMPANY, LLC	Michigan
NECHES RIVER HOLDING CORP.	Delaware
OCEANIC TANKERS AGENCY LIMITED	Quebec
PARKWAY PIPELINE LLC	Delaware
PENTA TANKS TERMINALS S.A.	Peru
PICKARD PLACE CONDOMINIUM ASSOCIATION	Michigan
PI DOCK FACILITIES LLC	Delaware
PORT ARTHUR COKER COMPANY L.P.	Delaware
PREMCOR USA INC.	Delaware
PROPERTY RESTORATION, L.P.	Delaware
PURE BIOFUELS HOLDINGS L.P.	Alberta
SABINE RIVER HOLDING CORP.	Delaware
SABINE RIVER LLC	Delaware

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SAINT BERNARD PROPERTIES COMPANY LLC	Delaware
SUNBELT REFINING COMPANY, L.P.	Delaware
THE PREMCOR PIPELINE CO.	Delaware
THE PREMCOR REFINING GROUP INC.	Delaware
THE SHAMROCK PIPE LINE CORPORATION	Delaware
TRANSPORT MARITIME ST. LAURENT INC.	Quebec
ULTRAMAR ACCEPTANCE INC.	Canada
ULTRAMAR ENERGY INC.	Delaware
ULTRAMAR INC.	Nevada
V-TEX LOGISTICS LLC	Delaware
VALERO ADMINISTRATIVE SERVICES DE MÉXICO, S.A. DE C.V.	Mexico
VALERO ARUBA ACQUISITION COMPANY I, LTD.	Virgin Islands (U.K.)
VALERO ARUBA FINANCE INTERNATIONAL, LTD.	Virgin Islands (U.K.)
VALERO ARUBA HOLDING COMPANY N.V.	Aruba
VALERO ARUBA HOLDINGS INTERNATIONAL, LTD.	Virgin Islands (U.K.)
VALERO ARUBA MAINTENANCE/OPERATIONS COMPANY N.V.	Aruba
VALERO (BARBADOS) SRL	Barbados
VALERO BROWNSVILLE TERMINAL LLC	Texas
VALERO CANADA FINANCE, INC.	Delaware
VALERO CANADA L.P.	Newfoundland
VALERO CAPITAL CORPORATION	Delaware
VALERO COKER CORPORATION ARUBA N.V.	Aruba
VALERO CUSTOMS & TRADE SERVICES, INC.	Delaware
VALERO ENERGY ARUBA II COMPANY	Cayman Islands
VALERO ENERGY INC.	Canada
VALERO ENERGY (IRELAND) LIMITED	Ireland
VALERO ENERGY LTD	England and Wales
VALERO ENERGY PARTNERS GP LLC	Delaware
VALERO ENERGY PARTNERS LP	Delaware
VALERO ENERGY UK LTD	England and Wales
VALERO ENTERPRISES, INC.	Delaware
VALERO EQUITY SERVICES LTD	England and Wales
VALERO FINANCE L.P. I	Newfoundland
VALERO FINANCE L.P. II	Newfoundland
VALERO FINANCE L.P. III	Newfoundland
VALERO FOREST CONTRIBUTION LLC	Delaware
VALERO GRAIN MARKETING, LLC	Texas
VALERO HOLDCO UK LTD	United Kingdom
VALERO HOLDINGS, INC.	Delaware
VALERO INTERNATIONAL HOLDINGS, INC.	Nevada
VALERO LATIN AMERICA SERVICES LLC	Delaware
VALERO LIVE OAK LLC	Texas
VALERO LOGISTICS IRELAND LIMITED	Ireland

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VALERO LOGISTICS UK LTD	England and Wales
VALERO MARKETING AND SUPPLY COMPANY	Delaware
VALERO MARKETING AND SUPPLY DE MÉXICO S.A. DE C.V.	Mexico
VALERO MARKETING AND SUPPLY INTERNATIONAL LTD.	Cayman Islands
VALERO MARKETING AND SUPPLY (PANAMA) LLC	Delaware
VALERO MARKETING IRELAND LIMITED	Ireland
VALERO MKS LOGISTICS, L.L.C.	Delaware
VALERO NEDERLAND COÖPERATIEF U.A.	The Netherlands
VALERO NEW AMSTERDAM B.V.	The Netherlands
VALERO OPERATIONAL SERVICES DE MÉXICO, S.A. DE C.V.	Mexico
VALERO OPERATIONS SUPPORT, LTD	England and Wales
VALERO PARTNERS CCTS, LLC	Delaware
VALERO PARTNERS CORPUS EAST, LLC	Delaware
VALERO PARTNERS CORPUS WEST, LLC	Delaware
VALERO PARTNERS EP, LLC	Delaware
VALERO PARTNERS HOUSTON, LLC	Delaware
VALERO PARTNERS LOUISIANA, LLC	Delaware
VALERO PARTNERS LUCAS, LLC	Delaware
VALERO PARTNERS MCKEE, LLC	Delaware
VALERO PARTNERS MEMPHIS, LLC	Delaware
VALERO PARTNERS MERAUX, LLC	Delaware
VALERO PARTNERS NORTH TEXAS, LLC	Delaware
VALERO PARTNERS OPERATING CO. LLC	Delaware
VALERO PARTNERS PAPS, LLC	Delaware
VALERO PARTNERS PORT ARTHUR, LLC	Delaware
VALERO PARTNERS SOUTH TEXAS, LLC	Delaware
VALERO PARTNERS TEXAS CITY, LLC	Delaware
VALERO PARTNERS THREE RIVERS, LLC	Delaware
VALERO PARTNERS WEST MEMPHIS, LLC	Delaware
VALERO PARTNERS WEST TEXAS, LLC	Delaware
VALERO PARTNERS WYNNEWOOD, LLC	Delaware
VALERO PAYMENT SERVICES COMPANY	Virginia
VALERO PEMBROKESHIRE LLC	Delaware
VALERO PEMBROKESHIRE OIL TERMINAL LTD	England and Wales
VALERO (PERU) HOLDINGS GP LLC	Delaware
VALERO (PERU) HOLDINGS LIMITED	British Columbia
VALERO PERU S.A.C.	Peru
VALERO PLAINS COMPANY LLC	Texas
VALERO POWER MARKETING LLC	Delaware
VALERO RAIL OPERATIONS DE MÉXICO, S.A. DE C.V.	Mexico
VALERO REFINING AND MARKETING COMPANY	Delaware
VALERO REFINING COMPANY-ARUBA N.V.	Aruba
VALERO REFINING COMPANY-CALIFORNIA	Delaware

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VALERO REFINING COMPANY-OKLAHOMA	Michigan
VALERO REFINING COMPANY-TENNESSEE, L.L.C.	Delaware
VALERO REFINING-MERAUX LLC	Delaware
VALERO REFINING-NEW ORLEANS, L.L.C.	Delaware
VALERO REFINING-TEXAS, L.P.	Texas
VALERO RENEWABLE FUELS COMPANY, LLC	Texas
VALERO SECURITY SYSTEMS, INC.	Delaware
VALERO SERVICES, INC.	Delaware
VALERO SKELLYTOWN PIPELINE, LLC	Delaware
VALERO TEJAS COMPANY LLC	Delaware
VALERO TERMINAL HOLDCO LTD	England and Wales
VALERO TERMINALING AND DISTRIBUTION COMPANY	Delaware
VALERO TERMINALING AND DISTRIBUTION DE MEXICO, S.A. DE C.V.	Mexico
VALERO TEXAS POWER MARKETING, INC.	Delaware
VALERO ULTRAMAR HOLDINGS INC.	Delaware
VALERO UNIT INVESTMENTS, L.L.C.	Delaware
VALERO WEST WALES LLC	Delaware
VRG PROPERTIES COMPANY	Delaware
VTD PROPERTIES COMPANY	Delaware
WARSHALL COMPANY LLC	Delaware
ZELIG COMMERCIAL, INC.	Panama

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors and Stockholders  
Valero Energy Corporation:

We consent to the incorporation by reference in the registration statements, as amended, on Form S-3ASR (Registration No. 333-224993) and Form S-8 (Registration Nos. 333-106620, 333-129032, 333-136333, 333-174721, and 333-205756) of Valero Energy Corporation and subsidiaries of our reports dated February 26, 2020, with respect to the consolidated balance sheets of Valero Energy Corporation and subsidiaries as of December 31, 2019 and 2018, the related consolidated statements of income, comprehensive income, equity, and cash flows for each of the years in the three-year period ended December 31, 2019, and the related notes (collectively, the “consolidated financial statements”), and the effectiveness of internal control over financial reporting as of December 31, 2019, which reports appear in the December 31, 2019 annual report on Form 10-K of Valero Energy Corporation and subsidiaries.

/s/ KPMG LLP

San Antonio, Texas  
February 26, 2020

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

I, Joseph W. Gorder, certify that:

1. I have reviewed this annual report on Form 10-K 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: February 26, 2020

/s/ Joseph W. Gorder

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Joseph W. Gorder  
Chief Executive Officer

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

I, Donna M. Titzman, certify that:

1. I have reviewed this annual report on Form 10-K 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: February 26, 2020

/s/ Donna M. Titzman

Donna M. Titzman

Executive Vice President and Chief Financial Officer

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

In connection with the Annual Report of Valero Energy Corporation (the Company) on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), the undersigned hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Joseph W. Gorder

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Joseph W. Gorder  
Chief Executive Officer  
February 26, 2020

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.

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**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 Annual Report of Valero Energy Corporation (the Company) on Form 10-K for the year ended December 31, 2019, as filed with the Securities and Exchange Commission on the date hereof (the Report), the undersigned hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ Donna M. Titzman

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Donna M. Titzman

Executive Vice President and Chief Financial Officer

February 26, 2020

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.