PART II

Item 5. ***Market for Registrant's Common Units, Related Unitholder Matters and Issuer Purchases of Equity Securities***

Market Information, Holders and Distributions

Our common units are listed and traded on the New York Stock Exchange under the symbol "PAA." As of February 12, 2020, there were 728,050,904 common units outstanding and approximately 108,000 record holders and beneficial owners (held in street name).

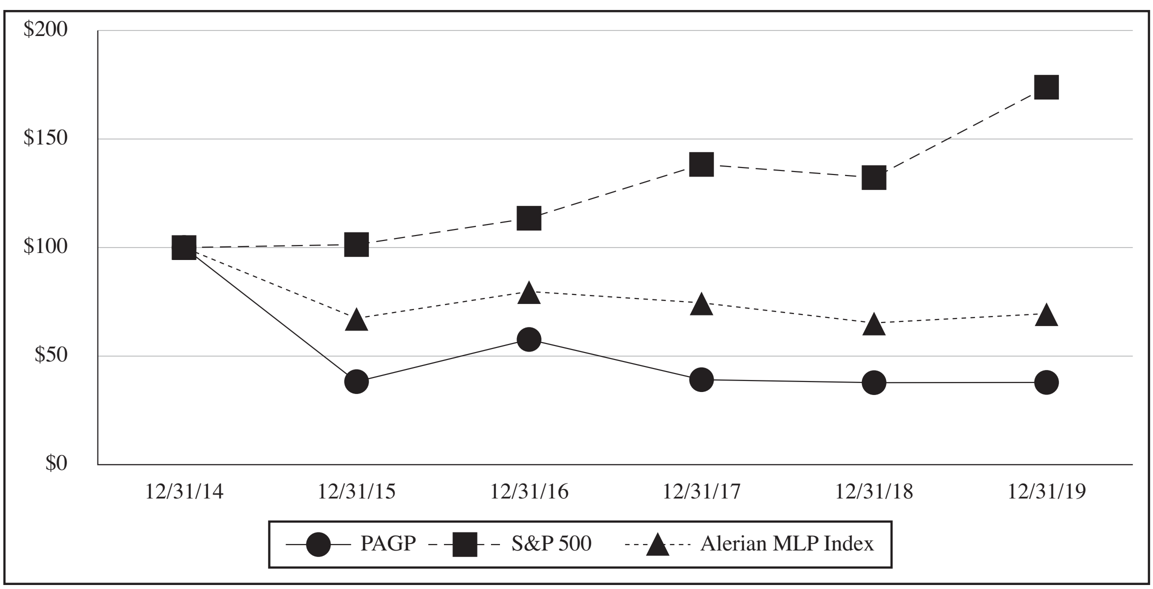
The following table presents cash distributions per common unit pertaining to the quarter presented, which were declared and paid in the following calendar quarter (see the "Cash Distribution Policy" section below for a discussion of our policy regarding distribution payments):

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
2019	$0.36	$0.36	$0.36	$0.36
2018	$0.30	$0.30	$0.30	$0.30

Our common units are also used as a form of compensation to our employees and PAGP GP directors. See Note 18 to our Consolidated Financial Statements for additional information regarding our equity-indexed compensation plans.

Performance Graph

The following graph compares the total unitholder return performance of our common units with the performance of: (i) the Standard & Poor's 500 Stock Index ("S&P 500") and (ii) the Alerian MLP Index. The Alerian MLP Index is a composite of the most prominent energy master limited partnerships that provides investors with a comprehensive benchmark for this asset class. The graph assumes that $100 was invested in our common units and each comparison index beginning on December 31, 2014 and that all distributions were reinvested on a quarterly basis.



	12/31/2014	12/31/2015	12/31/2016	12/31/2017	12/31/2018	12/31/2019
PAA	$100.00	$ 48.08	$ 74.92	$ 51.44	$ 52.65	$ 51.45
S&P 500	$100.00	$101.38	$113.51	$138.29	$132.23	$173.86
Alerian MLP Index	$100.00	$ 67.41	$ 79.75	$ 74.55	$ 65.29	$ 69.57

This information shall not be deemed to be "soliciting material" or to be "filed" with the Commission or subject to Regulation 14A or 14C under the Exchange Act, other than as provided in Item 201(e) of Regulation S-K, or to the liabilities of Section 18 of the Exchange Act, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that we specifically request that such information be treated as soliciting material or specifically incorporate it by reference into a filing under the Securities Act or the Exchange Act.

Recent Sales of Unregistered Securities

None.

Issuer Purchases of Equity Securities

None.

Cash Distribution Policy

In accordance with our partnership agreement, after making distributions to holders of our outstanding preferred units, we distribute the remainder of our available cash to our common unitholders of record within 45 days following the end of each quarter. Available cash is generally defined as, for any quarter ending prior to liquidation, all of our cash and cash equivalents on hand at the end of each quarter less reserves established in the reasonable discretion of our general partner for future requirements to:

- provide for the proper conduct of our business and the business of our operating partnerships (including reserves for future capital expenditures and for our anticipated future credit needs);
- comply with applicable law or any loan agreement, security agreement, mortgage, debt instrument or other agreement or obligation; or
- provide funds for distributions to our Series A and Series B preferred unitholders or distributions to our common unitholders for any one or more of the next four calendar quarters.

Our available cash also includes cash on hand resulting from borrowings made after the end of the quarter.

Under the terms of the agreements governing our debt, we are prohibited from declaring or paying any distribution to unitholders if a default or event of default (as defined in such agreements) exists. No such default has occurred. See Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Liquidity and Capital Resources — Credit Agreements, Commercial Paper Program and Indentures."

Under the terms of our partnership agreement, our Series A preferred units and our Series B preferred units rank senior to all classes or series of equity securities in us with respect to distribution rights.

Item 6. *Selected Financial Data*

The historical financial information below was derived from our audited Consolidated Financial Statements as of December 31, 2019, 2018, 2017, 2016 and 2015 and for the years then ended. The selected financial data should be read in conjunction with Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations," and the Consolidated Financial Statements, including the notes thereto, in Item 8. "Financial Statements and Supplementary Data."

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(in millions, except per unit data and volumes)				
Statement of operations data:					
Total revenues	$33,669	$34,055	$26,223	$20,182	$23,152
Operating income	$ 1,988	$ 2,277	$ 1,153	$ 994	$ 1,262
Net income	$ 2,180	$ 2,216	$ 858	$ 730	$ 906
Net income attributable to PAA	$ 2,171	$ 2,216	$ 856	$ 726	$ 903
Per unit data:					
Basic net income per common unit	$ 2.70	$ 2.77	$ 0.96	$ 0.43	$ 0.78
Diluted net income per common unit	$ 2.65	$ 2.71	$ 0.95	$ 0.43	$ 0.77
Declared distributions per common unit[1]	$ 1.38	$ 1.20	$ 1.95	$ 2.65	$ 2.76
Balance sheet data (at end of period):					
Property and equipment, net	$15,355	$14,787	$14,089	$13,872	$13,474
Total assets[2]	$28,677	$25,511	$25,351	$24,210	$22,288
Long-term debt	$ 9,187	$ 9,143	$ 9,183	$10,124	$10,375
Long-term operating lease liabilities[2]	$ 387	$ —	$ —	$ —	$ —
Total debt	$ 9,691	$ 9,209	$ 9,920	$11,839	$11,374
Partners' capital	$13,195	$12,002	$10,958	$ 8,816	$ 7,939
Other data:					
Net cash provided by operating activities	$ 2,504	$ 2,608	$ 2,499	$ 733	$ 1,358
Net cash used in investing activities	$ (1,765)	$ (813)	$ (1,570)	$ (1,273)	$ (2,530)
Net cash provided by/(used in) financing activities	$ (720)	$ (1,757)	$ (943)	$ 556	$ 800
Capital expenditures:					
Acquisition capital	$ 50	$ —	$ 1,323	$ 289	$ 105
Expansion capital	$ 1,340	$ 1,888	$ 1,135	$ 1,405	$ 2,170
Maintenance capital	$ 287	$ 252	$ 247	$ 186	$ 220
Volumes[3][4]					
Transportation segment (average daily volumes in thousands of barrels per day):					
Tariff activities	6,805	5,791	5,083	4,523	4,340
Trucking	88	98	103	114	113
Transportation segment total volumes	6,893	5,889	5,186	4,637	4,453

	Year Ended December 31,				
	2019	2018	2017	2016	2015
	(in millions, except per unit data and volumes)				
Facilities segment:					
Liquids storage (average monthly capacity in millions of barrels)[5]	110	109	112	107	100
Natural gas storage (average monthly working capacity in billions of cubic feet)	63	66	82	97	97
NGL fractionation (average volumes in thousands of barrels per day)	144	131	126	115	103
Facilities segment total volumes (average monthly volumes in millions of barrels)	125	124	130	127	120
Supply and Logistics segment (average daily volumes in thousands of barrels per day):					
Crude oil lease gathering purchases	1,162	1,054	945	894	943
NGL sales	207	255	274	259	223
Supply and Logistics segment total volumes	1,369	1,309	1,219	1,153	1,166

(1) Represents cash distributions declared and paid per unit during the year presented. See Note 12 to our Consolidated Financial Statements for further discussion regarding our distributions.

(2) On January 1, 2019, we adopted Accounting Standards Update 2016-02, *Leases (Topic 842)* using the optional transitional method. Prior period amounts have not been adjusted and continue to be reported in accordance with our historic accounting under Accounting Standards Codification Topic 840.

(3) Average volumes are calculated as the total volumes (attributable to our interest) for the year divided by the number of days or months in the year.

(4) Facilities segment total volumes is calculated as the sum of: (i) liquids storage capacity; (ii) natural gas storage working capacity divided by 6 to account for the 6:1 thousand cubic feet ("mcf") of natural gas to crude British thermal unit ("Btu") equivalent ratio and further divided by 1,000 to convert to monthly volumes in millions; and (iii) NGL fractionation volumes multiplied by the number of days in the year and divided by the number of months in the year.

(5) Includes volumes (attributable to our interest) from facilities owned by unconsolidated entities.

Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations*

Introduction

The following discussion is intended to provide investors with an understanding of our financial condition and results of our operations and should be read in conjunction with our historical Consolidated Financial Statements and accompanying notes.

Our discussion and analysis includes the following:

- Executive Summary
- Acquisitions and Capital Projects
- Critical Accounting Policies and Estimates
- Recent Accounting Pronouncements
- Results of Operations
- Outlook
- Liquidity and Capital Resources

Executive Summary

Company Overview

We own and operate midstream energy infrastructure and provide logistics services primarily for crude oil, NGL and natural gas. We own an extensive network of pipeline transportation, terminalling, storage, and gathering assets in key crude oil and NGL producing basins and transportation corridors and at major market hubs in the United States and Canada. We were formed in 1998, and our operations are conducted directly and indirectly through our operating subsidiaries and are managed through three operating segments: Transportation, Facilities and Supply and Logistics. See "— Results of Operations — Analysis of Operating Segments" for further discussion.

Overview of Operating Results, Capital Investments and Other Significant Activities

Net income for the year ended December 31, 2019 of $2.180 billion was relatively flat compared to net income of $2.216 billion recognized for the year ended December 31, 2018. The significant items impacting income for the comparative period included:

- Favorable results from our Supply and Logistics segment due to the realization of favorable crude oil differentials, primarily in the Permian Basin and Canada, and higher NGL margins;
- Favorable results from our Transportation segment, primarily from our pipelines in the Permian Basin region, driven by higher volumes from increased production and our recently completed capital expansion projects;
- A decrease in income tax expense primarily due to lower year-over-year income as impacted by fluctuations in the derivative mark-to-market valuations in our Canadian operations;
- A non-cash gain of $269 million recognized during the 2019 period related to a fair value adjustment resulting from the accounting for the contribution of our undivided joint interest in the Capline pipeline system for an equity interest in Capline Pipeline Company LLC compared to a gain of $200 million recognized in 2018 related to the sale of a portion of our interest in BridgeTex Pipeline Company LLC;
- The unfavorable impact of the mark-to-market of certain derivative instruments, resulting from gains recognized during the 2018 period compared to losses recognized in the 2019 period;
- The unfavorable impact of a net loss on asset sales and asset impairments of $28 million in 2019 compared to a net gain of $114 million in 2018; and

- Higher depreciation and amortization expense in 2019 primarily due to the additional depreciation expense associated with the completion of various capital expansion projects.

See further discussion of our operating results in the "— Results of Operations — Analysis of Operating Segments" and "— Other Income and Expenses" sections below. See the "Outlook — Market Overview and Outlook" section below for a discussion of the market and our current outlook.

We invested approximately $1.3 billion in expansion capital during 2019, primarily related to projects under development in the Permian Basin. See the "— Acquisitions, Capital Projects and Divestitures" section below for additional information.

We also paid approximately $1.2 billion of cash distributions to our common unitholders and our Series A and B preferred unitholders during 2019.

Leverage Reduction Plan Completion and Financial Policy Update

In August 2017, we announced that we were implementing an action plan to strengthen our balance sheet, reduce leverage, enhance our distribution coverage, minimize new issuances of common equity and position the Partnership for future distribution growth. The action plan ("Leverage Reduction Plan"), which was endorsed by the PAGP GP Board, included our intent to achieve certain objectives. During 2017 and 2018, we made meaningful progress in executing our Leverage Reduction Plan and in April 2019, we announced our achievement of the remaining objectives. Concurrent with the completion of the Leverage Reduction Plan, we completed a review of our approach to our capital allocation process, targeted leverage metrics and distribution management policies. As part of the April 2019 announcement, we provided several updates regarding our financial policy, including the following actions:

- Lowering our targeted long-term debt to Adjusted EBITDA leverage ratio by 0.5x to a range of 3.0x to 3.5x;
- Establishing a long-term sustainable minimum annual distribution coverage level of 130% underpinned by predominantly fee-based cash flows; and
- Our adoption of an annual cycle for setting the common unit distribution level and intention to increase common unit distributions in the future contingent on achieving and maintaining targeted leverage and coverage ratios and subject to an annual review process.

These actions reflect our dedication to optimizing sustainable unitholder value while also preserving and enhancing our financial flexibility, further reducing leverage and improving our credit profile, with an objective of achieving mid-BBB equivalent credit ratings over time. Consistent with those objectives, we announced that we intend to continue to focus on activities to enhance investment returns and reinforce capital discipline through asset optimization, joint ventures, potential divestitures and similar arrangements.

Acquisitions, Capital Projects and Divestitures

Acquisitions and Capital Projects

We completed a number of acquisitions and capital projects in 2019, 2018 and 2017 that have impacted our results of operations. The following table summarizes our expenditures for acquisition capital, expansion capital and maintenance capital for such periods (in millions):

	Year Ended December 31,		
	2019	2018	2017
Acquisition capital(1)(2)	$ 50	$ —	$1,323
Expansion capital(1)(3)	1,340	1,888	1,135
Maintenance capital(3)	287	252	247
	$1,677	$2,140	$2,705

(1) Acquisitions of initial investments or additional interests in unconsolidated entities are included in "Acquisition capital." Subsequent contributions to unconsolidated entities related to expansion projects of such entities are recognized in "Expansion capital." We account for our investments in such entities under the equity method of accounting.

(2) Acquisition capital for 2017 primarily includes the Alpha Crude Connector Gathering System acquisition completed in February 2017. See Note 7 to our Consolidated Financial Statements for additional information on acquisitions.

(3) Capital expenditures made to expand the existing operating and/or earnings capacity of our assets are classified as "Expansion capital." Capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets are classified as "Maintenance capital."

Expansion Capital Projects

Our 2019 projects primarily included the construction and expansion of pipeline systems and storage and terminal facilities. The following table summarizes our 2019, 2018 and 2017 projects (in millions):

Projects	2019	2018	2017
Complementary Permian Basin Projects[1]	$ 503	$ 671	$ 217
Permian Basin Takeaway Pipeline Projects[1][2]	440	880	59
Other Long-Haul Pipeline Projects[1]	92	3	15
Selected Facilities Projects[1][3]	93	62	134
Diamond Pipeline	6	17	318
Other Projects	206	255	392
Total	$1,340	$1,888	$1,135

(1) These projects will continue into 2020. See "— Liquidity and Capital Resources — Acquisitions, Investments, Expansion Capital Expenditures and Divestitures — 2020 Capital Projects."

(2) Represents pipeline projects with takeaway capacity out of the Permian Basin, including (i) our 65% interest in the Cactus II Pipeline, (ii) our 16% interest in Wink to Webster Pipeline and (iii) our Sunrise expansion.

(3) Includes projects at our St. James, Fort Saskatchewan and Cushing terminals.

Our expansion capital programs consist of investments in midstream infrastructure projects that build upon our core assets and operations. For the years presented, substantially all of the expansion capital was invested in our fee-based Transportation and Facilities segments. The majority of this expansion capital consists of highly-contracted projects that complement our broader system capabilities and support the long-term needs of the upstream and downstream sectors of the industry value chain.

We currently expect to spend approximately $1.4 billion for expansion capital in 2020. See "— Liquidity and Capital Resources — Acquisitions, Investments, Expansion Capital Expenditures and Divestitures — 2020 Capital Projects" and "Outlook — Market Overview and Outlook" for additional information.

Divestitures

We continually evaluate potential sales of non-core assets and/or sales of partial interests in assets to strategic joint venture partners. The following table summarizes the proceeds received for sales of such assets, which were previously reported in our Transportation and Facilities segments, during the years ended December 31, 2019, 2018 and 2017 (in millions):

	Year Ended December 31,		
	2019	2018	2017
Proceeds from divestitures(1)	$205	$1,334	$1,083

(1) Includes proceeds from our formation of Red River Pipeline Company LLC in May 2019. See Note 12 to our Consolidated Financial Statements for additional information.

Proceeds from asset sales were used to fund our expansion capital program and reduce debt levels. See "— Liquidity and Capital Resources" for additional discussion of our divestiture activities.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with GAAP and rules and regulations of the SEC requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, as well as the disclosure of contingent assets and liabilities, at the date of the financial statements. Such estimates and assumptions also affect the reported amounts of revenues and expenses during the reporting period. Although we believe these estimates are reasonable, actual results could differ from these estimates. On a regular basis, we evaluate our assumptions, judgments and estimates. We also discuss our critical accounting policies and estimates with the Audit Committee of the Board of Directors.

We believe that the assumptions, judgments and estimates involved in the accounting for our (i) estimated fair value of assets and liabilities acquired and identification of associated goodwill and intangible assets, (ii) impairment assessments of goodwill and intangible assets, (iii) fair value of derivatives, (iv) accruals and contingent liabilities, (v) equity-indexed compensation plan accruals, (vi) property and equipment, depreciation and amortization expense, asset retirement obligations and impairments, (vii) allowance for doubtful accounts and (viii) inventory valuations have the greatest potential impact on our Consolidated Financial Statements. These areas are key components of our results of operations and are based on complex rules which require us to make judgments and estimates. Therefore, we consider these to be our critical accounting policies and estimates, which are discussed further as follows. For further information on all of our significant accounting policies, see Note 2 to our Consolidated Financial Statements.

Fair Value of Assets and Liabilities Acquired and Identification of Associated Goodwill and Intangible Assets. In accordance with FASB guidance regarding business combinations, with each acquisition, we allocate the cost of the acquired entity to the assets and liabilities assumed based on their estimated fair values at the date of acquisition. If the initial accounting for the business combination is incomplete when the combination occurs, an estimate will be recorded. We also expense the transaction costs as incurred in connection with each acquisition, except for acquisitions of equity method investments. In addition, we are required to recognize intangible assets separately from goodwill.

Determining the fair value of assets and liabilities acquired, as well as intangible assets that relate to such items as customer relationships, acreage dedications and other contracts, involves professional judgment and is ultimately based on acquisition models and management's assessment of the value of the assets acquired and, to the extent available, third party assessments.

Impairment Assessments of Goodwill and Intangible Assets. Goodwill and intangible assets with indefinite lives are not amortized but are instead periodically assessed for impairment. See Note 8 to our Consolidated Financial Statements for further discussion of goodwill. Intangible assets with finite lives are amortized over their estimated useful life as determined by management.

Impairment testing entails estimating future net cash flows relating to the business, based on management's estimate of future revenues, future cash flows and market conditions including pricing, demand, competition, operating costs and other factors. Uncertainties associated with these estimates include changes in production decline rates, production interruptions, fluctuations in refinery capacity or product slates, economic obsolescence factors in the area and potential future sources of cash flow. In addition, changes in our weighted average cost of capital from our estimates could have a significant impact on fair value. We cannot provide assurance that actual amounts will not vary significantly from estimated amounts. Resolutions of these uncertainties have resulted, and in the future may result, in impairments that impact our results of operations and financial condition.

Fair Value of Derivatives. The fair value of a derivative at a particular period end does not reflect the end results of a particular transaction, and will most likely not reflect the gain or loss at the conclusion of a transaction. We reflect estimates for these items based on our internal records and information from third parties. We have commodity derivatives, interest rate derivatives and foreign currency derivatives that are accounted for as assets and liabilities at fair value on our Consolidated Balance Sheets. The valuations of our derivatives that are exchange traded are based on market prices on the applicable exchange on the last day of the period. For our derivatives that are not exchange traded, the estimates we use are based on indicative broker quotations or an internal valuation model. Our valuation models utilize market observable inputs such as price, volatility, correlation and other factors and may not be reflective of the price at which they can be settled due to the lack of a liquid market. Less than 1% of total annual revenues are based on estimates derived from internal valuation models.

We also have embedded derivatives that are recorded at fair value on our Consolidated Balance Sheets. These embedded derivatives are valued using models that contain inputs, some of which involve management judgment.

Although the resolution of the uncertainties involved in these estimates has not historically had a material impact on our results of operations or financial condition, we cannot provide assurance that actual amounts will not vary significantly from estimated amounts. See Item 7A. Quantitative and Qualitative Disclosures About Market Risk and Note 13 to our Consolidated Financial Statements for a discussion regarding our derivatives and risk management activities.

Accruals and Contingent Liabilities. We record accruals or liabilities for, among other things, environmental remediation, natural resource damage assessments, governmental fines and penalties, potential legal claims and fees for legal services associated with loss contingencies, and bonuses. Accruals are made when our assessment indicates that it is probable that a liability has occurred and the amount of liability can be reasonably estimated. Our estimates are based on all known facts at the time and our assessment of the ultimate outcome. Among the many uncertainties that impact our estimates are the necessary regulatory approvals for, and potential modification of, our environmental remediation plans, the limited amount of data available upon initial assessment of the impact of soil or water contamination, changes in costs associated with environmental remediation services and equipment, the duration of the natural resource damage assessment and the ultimate amount of damages determined, the determination and calculation of fines and penalties, the possibility of existing legal claims giving rise to additional claims and the nature, extent and cost of legal services that will be required in connection with lawsuits, claims and other matters. Our estimates for contingent liability accruals are increased or decreased as additional information is obtained or resolution is achieved. A hypothetical variance of 5% in our aggregate estimate for the accruals and contingent liabilities discussed above would have an impact on earnings of up to approximately $14 million. Although the resolution of these uncertainties has not historically had a material impact on our results of operations or financial condition, we cannot provide assurance that actual amounts will not vary significantly from estimated amounts.

Equity-Indexed Compensation Plan Accruals. We accrue compensation expense (referred to herein as equity-indexed compensation expense) for outstanding equity-indexed compensation awards. Under GAAP, we are required to estimate the fair value of our outstanding equity-indexed compensation awards and recognize that fair value as compensation expense over the service period. For equity-indexed compensation awards that contain a performance condition, the fair value of the award is recognized as equity-indexed compensation expense only if the attainment of the performance condition is considered probable. Uncertainties involved in this estimate include future levels of four quarter trailing distributable cash flow ("DCF") per common unit (or in some instances, per common unit and common equivalent unit) and whether or not a performance condition will be attained. In addition, the common unit price at the end of each period (and at the time of vesting) will impact the amount of compensation expense recorded in each period for certain awards. We cannot provide assurance that the actual fair value of our equity-indexed compensation awards will not vary significantly from estimated amounts.

We recognized equity-indexed compensation expense of $34 million, $79 million and $41 million in 2019, 2018 and 2017, respectively, related to awards granted under our various equity-indexed compensation plans. A hypothetical variance of 5% in our aggregate estimate for the equity-indexed compensation expense would have an impact on our total costs and expenses of less than 1%. See Note 18 to our Consolidated Financial Statements for a discussion regarding our equity-indexed compensation plans.

Property and Equipment, Depreciation and Amortization Expense, Asset Retirement Obligations and Impairments. We compute depreciation and amortization using the straight-line method based on estimated useful lives. These estimates are based on various factors including condition, manufacturing specifications, technological advances and historical data concerning useful lives of similar assets. Uncertainties that impact these estimates include changes in laws and regulations relating to restoration and abandonment requirements, economic conditions and supply and demand in the area. When assets are put into service, we make estimates with respect to useful lives and salvage values that we believe are reasonable. However, subsequent events could cause us to change our estimates, thus impacting the future calculation of depreciation and amortization.

We record retirement obligations associated with tangible long-lived assets based on estimates related to the costs associated with cleaning, purging and, in some cases, completely removing the assets and returning the land to its original state. In addition, our estimates include a determination of the settlement date or dates for the potential obligation, which may or may not be determinable. Uncertainties that impact these estimates include the costs associated with these activities and the timing of incurring such costs.

We periodically evaluate property and equipment for impairment when events or circumstances indicate that the carrying value of these assets may not be recoverable. Any evaluation is highly dependent on the underlying assumptions of related cash flows. We consider the fair value estimate used to calculate impairment of property and equipment a critical accounting estimate. In determining the existence of an impairment of carrying value, we make a number of subjective assumptions as to:

- whether there is an event or circumstance that may be indicative of an impairment;
- the grouping of assets;
- the intention of “holding”, “abandoning” or “selling” an asset;
- the forecast of undiscounted expected future cash flow over the asset’s estimated useful life; and
- if an impairment exists, the fair value of the asset or asset group.

In addition, when we evaluate property and equipment and other long-lived assets for recoverability, it may also be necessary to review related depreciation estimates and methods.

A change in our outlook or use could result in impairments that may be material to our results of operations or financial condition. See the “— Outlook — Market Overview and Outlook” section below and Note 6 to our Consolidated Financial Statements for additional information.

Allowance for Doubtful Accounts. We perform credit evaluations of our customers and grant credit based on past payment history, financial conditions and anticipated industry conditions. Customer payments are regularly monitored and a provision for doubtful accounts is established based on specific situations and overall industry conditions. Our history of bad debt losses has been minimal (less than $2 million in the aggregate over the years ended December 31, 2019, 2018 and 2017) and generally limited to specific customer circumstances; however, credit risks can change suddenly and without notice. See Note 2 to our Consolidated Financial Statements for additional discussion.

Inventory Valuations. Inventory, including long-term inventory, primarily consists of crude oil and NGL and is valued at the lower of cost or net realizable value, with cost determined using an average cost method within specific inventory pools. At the end of each reporting period, we assess the carrying value of our inventory and use estimates and judgment when making any adjustments necessary to reduce the carrying value to net realizable value. Among the uncertainties that impact our estimates are the applicable quality and location differentials to include in our net realizable value analysis. Additionally, we estimate the upcoming liquidation timing of the inventory. Changes in assumptions made as to the timing of a sale can materially impact net realizable value. During the years ended December 31, 2019, 2018 and 2017, we recorded charges of $11 million, $8 million and $35 million, respectively, related to the valuation adjustment of our crude oil inventory due to declines in prices. See Note 5 to our Consolidated Financial Statements for further discussion regarding inventory.

Recent Accounting Pronouncements

See Note 2 to our Consolidated Financial Statements for information regarding the effect of recent accounting pronouncements on our Consolidated Financial Statements.

Results of Operations

The following table sets forth an overview of our consolidated financial results calculated in accordance with GAAP (in millions, except per unit data):

	Year Ended December 31,			Variance			
				2019 – 2018		2018 – 2017	
	2019	2018	2017	$	%	$	%
Transportation Segment Adjusted EBITDA(1)	$1,722	$1,508	$1,287	$ 214	14%	$ 221	17%
Facilities Segment Adjusted EBITDA(1)	705	711	734	(6)	(1)%	(23)	(3)%
Supply and Logistics Segment Adjusted EBITDA(1)	803	462	60	341	74%	402	**
Adjustments:							
Depreciation and amortization of unconsolidated entities	(62)	(56)	(45)	(6)	(11)%	(11)	(24)%
Selected items impacting comparability – Segment Adjusted EBITDA	(163)	433	33	(596)	**	400	**
Depreciation and amortization	(601)	(520)	(517)	(81)	(16)%	(3)	(1)%
Gains/(losses) on asset sales and asset impairments, net	(28)	114	(109)	(142)	(125)%	223	205%
Gain on investment in unconsolidated entities	271	200	—	71	36%	200	N/A
Interest expense, net	(425)	(431)	(510)	6	1%	79	15%
Other income/(expense), net	24	(7)	(31)	31	443%	24	77%
Income tax expense	(66)	(198)	(44)	132	67%	(154)	(350)%
Net income	2,180	2,216	858	(36)	(2)%	1,358	158%
Net income attributable to noncontrolling interests	(9)	—	(2)	(9)	N/A	2	100%
Net income attributable to PAA	$2,171	$2,216	$ 856	$ (45)	(2)%	$1,360	159%
Basic net income per common unit	$ 2.70	$ 2.77	$ 0.96	$(0.07)	**	$ 1.81	**
Diluted net income per common unit	$ 2.65	$ 2.71	$ 0.95	$(0.06)	**	$ 1.76	**
Basic weighted average common units outstanding	727	726	717	1	**	9	**
Diluted weighted average common units outstanding	800	799	718	1	**	81	**

** Indicates that variance as a percentage is not meaningful.

(1) Segment Adjusted EBITDA is the measure of segment performance that is utilized by our Chief Operating Decision Maker ("CODM") to assess performance and allocate resources among our operating segments. This measure is adjusted for certain items, including those that our CODM believes impact comparability of results across periods. See Note 21 to our Consolidated Financial Statements for additional discussion of such adjustments.

Non-GAAP Financial Measures

To supplement our financial information presented in accordance with GAAP, management uses additional measures known as "non-GAAP financial measures" in its evaluation of past performance and prospects for the future. The primary additional measures used by management are earnings before interest, taxes, depreciation and amortization (including our proportionate share of depreciation and amortization of, and gains and losses on significant asset sales by, unconsolidated entities), gains and losses on asset sales and asset impairments and gains on investments in unconsolidated entities, adjusted for certain selected items impacting comparability ("Adjusted EBITDA") and Implied DCF.

Management believes that the presentation of such additional financial measures provides useful information to investors regarding our performance and results of operations because these measures, when used to supplement related GAAP financial measures, (i) provide additional information about our core operating performance and ability to fund distributions to our unitholders through cash generated by our operations, (ii) provide investors with the same financial analytical framework upon which management bases financial, operational, compensation and planning/budgeting decisions and (iii) present measures that investors, rating agencies and debt holders have indicated are useful in assessing us and our results of operations. These non-GAAP measures may exclude, for example, (i) charges for obligations that are expected to be settled with the issuance of equity instruments, (ii) gains and losses on derivative instruments that are related to underlying activities in another period (or the reversal of such adjustments from a prior period), gains and losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable, (iii) long-term inventory costing adjustments, (iv) items that are not indicative of our core operating results and business outlook and/or (v) other items that we believe should be excluded in understanding our core operating performance. These measures may further be adjusted to include amounts related to deficiencies associated with minimum volume commitments whereby we have billed the counterparties for their deficiency obligation and such amounts are recognized as deferred revenue in "Other current liabilities" in our Consolidated Financial Statements. Such amounts are presented net of applicable amounts subsequently recognized into revenue. We have defined all such items as "selected items impacting comparability." We do not necessarily consider all of our selected items impacting comparability to be non-recurring, infrequent or unusual, but we believe that an understanding of these selected items impacting comparability is material to the evaluation of our operating results and prospects.

Although we present selected items impacting comparability that management considers in evaluating our performance, you should also be aware that the items presented do not represent all items that affect comparability between the periods presented. Variations in our operating results are also caused by changes in volumes, prices, exchange rates, mechanical interruptions, acquisitions, expansion projects and numerous other factors as discussed, as applicable, in "Analysis of Operating Segments."

Our definition and calculation of certain non-GAAP financial measures may not be comparable to similarly-titled measures of other companies. Adjusted EBITDA and Implied DCF are reconciled to Net Income, the most directly comparable measure as reported in accordance with GAAP, and should be viewed in addition to, and not in lieu of, our Consolidated Financial Statements and accompanying notes.

The following table sets forth the reconciliation of these non-GAAP financial performance measures from Net Income (in millions):

	Year Ended December 31,			Variance			
				2019 – 2018		2018 – 2017	
	2019	2018	2017	$	%	$	%
Net income	$ 2,180	$2,216	$ 858	$ (36)	(2)%	$1,358	158%
Add/(Subtract):							
Interest expense, net	425	431	510	(6)	(1)%	(79)	(15)%
Income tax expense	66	198	44	(132)	(67)%	154	350%
Depreciation and amortization	601	520	517	81	16%	3	1%
(Gains)/losses on asset sales and asset impairments, net	28	(114)	109	142	125%	(223)	(205)%
Gain on investment in unconsolidated entities	(271)	(200)	—	(71)	(36)%	(200)	N/A
Depreciation and amortization of unconsolidated entities(1)	62	56	45	6	11%	11	24%
Selected Items Impacting Comparability:							
(Gains)/losses from derivative activities net of inventory valuation adjustments(2)	160	(519)	(46)	679	**	(473)	**
Long-term inventory costing adjustments(3)	(20)	21	(24)	(41)	**	45	**
Deficiencies under minimum volume commitments, net(4)	(18)	7	2	(25)	**	5	**
Equity-indexed compensation expense(5)	17	55	23	(38)	**	32	**
Net (gain)/loss on foreign currency revaluation(6)	14	3	(26)	11	**	29	**
Line 901 incident(7)	10	—	32	10	**	(32)	**
Significant acquisition-related expenses(8)	—	—	6	—	**	(6)	**
Selected Items Impacting Comparability – Segment Adjusted EBITDA	163	(433)	(33)	596	**	(400)	**
(Gains)/losses from derivative activities(2)	(2)	14	(13)	(16)	**	27	**
Net (gain)/loss on foreign currency revaluation(6)	(15)	(4)	5	(11)	**	(9)	**
Net loss on early repayment of senior notes(9)	—	—	40	—	**	(40)	**
Selected Items Impacting Comparability – Adjusted EBITDA(10)	146	(423)	(1)	569	**	(422)	**
Adjusted EBITDA(10)	$ 3,237	$2,684	$ 2,082	$ 553	21%	$ 602	29%
Interest expense, net of certain non-cash items(11)	(407)	(419)	(483)	12	3%	64	13%
Maintenance capital(12)	(287)	(252)	(247)	(35)	(14)%	(5)	(2)%
Current income tax expense	(112)	(66)	(28)	(46)	(70)%	(38)	(136)%
Adjusted equity earnings in unconsolidated entities, net of distributions(13)	(49)	1	(10)	(50)	**	11	**
Distributions to noncontrolling interests(14)	(6)	—	(2)	(6)	N/A	2	100%
Implied DCF	$ 2,376	$1,948	$ 1,312	$ 428	22%	$ 636	48%
Preferred unit distributions(15)	(198)	(161)	(5)				
Implied DCF Available to Common Unitholders	$ 2,178	$1,787	$ 1,307				
Common unit distributions(14)	(1,004)	(871)	(1,386)				
Implied DCF Excess/(Shortage)(16)	$ 1,174	$ 916	$ (79)				

** Indicates that variance as a percentage is not meaningful.

(1) Over the past several years, we have increased our participation in strategic pipeline joint ventures accounted for under the equity method of accounting. We exclude our proportionate share of the depreciation and amortization expense of, and gains and losses on significant asset sales by, such unconsolidated entities when reviewing Adjusted EBITDA, similar to our consolidated assets.

(2) We use derivative instruments for risk management purposes, and our related processes include specific identification of hedging instruments to an underlying hedged transaction. Although we identify an underlying transaction for each derivative instrument we enter into, there may not be an accounting hedge relationship between the instrument and the underlying transaction. In the course of evaluating our results of operations, we identify the earnings that were recognized during the period related to derivative instruments for which the identified underlying transaction does not occur in the current period and exclude the related gains and losses in determining Adjusted EBITDA. In addition, we exclude gains and losses on derivatives that are related to investing activities, such as the purchase of linefill. We also exclude the impact of corresponding inventory valuation adjustments, as applicable. See Note 13 to our Consolidated Financial Statements for a comprehensive discussion regarding our derivatives and risk management activities.

(3) We carry crude oil and NGL inventory that is comprised of minimum working inventory requirements in third-party assets and other working inventory that is needed for our commercial operations. We consider this inventory necessary to conduct our operations and we intend to carry this inventory for the foreseeable future. Therefore, we classify this inventory as long-term on our balance sheet and do not hedge the inventory with derivative instruments (similar to linefill in our own assets). We treat the impact of changes in the average cost of the long-term inventory (that result from fluctuations in market prices) and writedowns of such inventory that result from price declines as a selected item impacting comparability. See Note 5 to our Consolidated Financial Statements for additional inventory disclosures.

(4) We have certain agreements that require counterparties to deliver, transport or throughput a minimum volume over an agreed upon period. Substantially all of such agreements were entered into with counterparties to economically support the return on our capital expenditure necessary to construct the related asset. Some of these agreements include make-up rights if the minimum volume is not met. We record a receivable from the counterparty in the period that services are provided or when the transaction occurs, including amounts for deficiency obligations from counterparties associated with minimum volume commitments. If a counterparty has a make-up right associated with a deficiency, we defer the revenue attributable to the counterparty's make-up right and subsequently recognize the revenue at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote. We include the impact of amounts billed to counterparties for their deficiency obligation, net of applicable amounts subsequently recognized into revenue, as a selected item impacting comparability. We believe the inclusion of the contractually committed revenues associated with that period is meaningful to investors as the related asset has been constructed, is standing ready to provide the committed service and the fixed operating costs are included in the current period results.

(5) Our total equity-indexed compensation expense includes expense associated with awards that will or may be settled in units and awards that will or may be settled in cash. The awards that will or may be settled in units are included in our diluted net income per unit calculation when the applicable performance criteria have been met. We consider the compensation expense associated with these awards as a selected item impacting comparability as the dilutive impact of the outstanding awards is included in our diluted net income per unit calculation, as applicable, and the majority of the awards are expected to be settled in units. The portion of compensation expense associated with awards that are certain to be settled in cash is not considered a selected item impacting comparability. See Note 18 to our Consolidated Financial Statements for a comprehensive discussion regarding our equity-indexed compensation plans.

(6) During the periods presented, there were fluctuations in the value of the Canadian dollar ("CAD") to the U.S. dollar ("USD"), resulting in non-cash gains and losses that were not related to our core operating results for the period and were thus classified as a selected item impacting comparability. See Note 13 to our Consolidated Financial Statements for discussion regarding our currency exchange rate risk hedging activities.

(7) Includes costs recognized during the period related to the Line 901 incident that occurred in May 2015, net of amounts we believe are probable of recovery from insurance. See Note 19 to our Consolidated Financial Statements for additional information regarding the Line 901 incident.

(8) Includes acquisition-related expenses associated with the ACC Acquisition in February 2017. See Note 7 to our Consolidated Financial Statements for additional information.

(9) The 2017 period includes net losses incurred in connection with the early redemption of our (i) $600 million, 6.50% senior notes due May 2018 and (ii) $350 million, 8.75% senior notes due May 2019. See Note 11 to our Consolidated Financial Statements for additional information.

(10) Other income/(expense), net per our Consolidated Statements of Operations, adjusted for selected items impacting comparability ("Adjusted Other income/(expense), net") is included in Adjusted EBITDA and excluded from Segment Adjusted EBITDA.

(11) Excludes certain non-cash items impacting interest expense such as amortization of debt issuance costs and terminated interest rate swaps.

(12) Maintenance capital expenditures are defined as capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets.

(13) Comprised of cash distributions received from unconsolidated entities less equity earnings in unconsolidated entities (adjusted for our proportionate share of depreciation and amortization and gains and losses on significant asset sales).

(14) Cash distributions paid during the period presented.

(15) Cash distributions paid to our preferred unitholders during the period presented. The current $0.5250 quarterly ($2.10 annualized) per unit distribution requirement of our Series A preferred units was paid-in-kind for each quarterly distribution from their issuance through February 2018. Distributions on our Series A preferred units have been paid in cash since the May 2018 quarterly distribution. The current $61.25 per unit annual distribution requirement of our Series B preferred units, which were issued in October 2017, is payable semi-annually in arrears on May 15 and November 15. A pro-rated initial distribution on the Series B preferred units was paid on November 15, 2017. See Note 12 to our Consolidated Financial Statements for additional information regarding our preferred units.

(16) Excess DCF is retained to establish reserves for future distributions, capital expenditures and other partnership purposes. DCF shortages may be funded from previously established reserves, cash on hand or from borrowings under our credit facilities or commercial paper program.

Analysis of Operating Segments

We manage our operations through three operating segments: Transportation, Facilities and Supply and Logistics. Our CODM (our Chief Executive Officer) evaluates segment performance based on a variety of measures including Segment Adjusted EBITDA, segment volumes, Segment Adjusted EBITDA per barrel and maintenance capital investment.

We define Segment Adjusted EBITDA as revenues and equity earnings in unconsolidated entities less (a) purchases and related costs, (b) field operating costs and (c) segment general and administrative expenses, plus our proportionate share of the depreciation and amortization expense of, and gains and losses on significant asset sales by, unconsolidated entities, and further adjusted for certain selected items including (i) the mark-to-market of derivative instruments that are related to underlying activities in another period (or the reversal of such adjustments from a prior period), gains and losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable, (ii) long-term inventory costing adjustments, (iii) charges for obligations that are expected to be settled with the issuance of equity instruments, (iv) amounts related to deficiencies associated with minimum volume commitments, net of applicable amounts subsequently recognized into revenue and (v) other items that our CODM believes are integral to understanding our core segment operating performance. See Note 21 to our Consolidated Financial Statements for a reconciliation of Segment Adjusted EBITDA to Net income attributable to PAA.

Our segment analysis involves an element of judgment relating to the allocations between segments. In connection with its operations, the Supply and Logistics segment secures transportation and facilities services from our other two segments as well as third-party service providers under month-to-month and multi-year arrangements. Intersegment transportation service rates are conducted at posted tariff rates, rates similar to those charged to third parties or rates that we believe approximate market. Facilities segment services are also obtained at rates generally consistent with rates charged to third parties for similar services. Intersegment activities are eliminated in consolidation and we believe that the estimates with respect to these rates are reasonable. Also, our segment operating and general and administrative expenses reflect direct costs attributable to each segment; however, we also allocate certain operating expenses and general and administrative overhead expenses between segments based on management's assessment of the business activities for the period. The proportional allocations by segment require judgment by management and may be adjusted in the future based on the business activities that exist during each period. We believe that the estimates with respect to these allocations are reasonable.

Revenues and expenses from our Canadian based subsidiaries, which use CAD as their functional currency, are translated at the prevailing average exchange rates for the month.

Transportation Segment

Our Transportation segment operations generally consist of fee-based activities associated with transporting crude oil and NGL on pipelines, gathering systems, trucks and barges. The Transportation segment generates revenue through a combination of tariffs, pipeline capacity agreements and other transportation fees. Tariffs and other fees on our pipeline systems vary by receipt point and delivery point. The segment results generated by our tariff and other fee-related activities depend on the volumes transported on the pipeline and the level of the tariff and other fees charged, as well as the fixed and variable field costs of operating the pipeline.

The following tables set forth our operating results from our Transportation segment:

Operating Results[(1)] (in millions, except per barrel data)	Year Ended December 31,			Variance			
				2019 – 2018		2018 – 2017	
	2019	2018	2017	$	%	$	%
Revenues	$2,320	$1,990	$1,718	$ 330	17%	$ 272	16%
Purchases and related costs	(244)	(194)	(123)	(50)	(26)%	(71)	(58)%
Field operating costs	(700)	(640)	(593)	(60)	(9)%	(47)	(8)%
Segment general and administrative expenses[(2)]	(104)	(117)	(101)	13	11%	(16)	(16)%
Equity earnings in unconsolidated entities	388	375	290	13	3%	85	29%
Adjustments[(3)]:							
Depreciation and amortization of unconsolidated entities	61	56	45	5	9%	11	24%
(Gains)/losses from derivative activities	—	(1)	—	1	**	(1)	**
Deficiencies under minimum volume commitments, net	(18)	9	2	(27)	**	7	**
Equity-indexed compensation expense	9	30	11	(21)	**	19	**
Line 901 incident	10	—	32	10	**	(32)	**
Significant acquisition-related expenses	—	—	6	—	**	(6)	**
Segment Adjusted EBITDA	$1,722	$1,508	$1,287	$ 214	14%	$ 221	17%
Maintenance capital	$ 161	$ 139	$ 120	$ 22	16%	$ 19	16%
Segment Adjusted EBITDA per barrel	$ 0.68	$ 0.70	$ 0.68	$(0.02)	(3)%	$0.02	3%

Average Daily Volumes (in thousands of barrels per day)[4]	Year Ended December 31, 2019	2018	2017	Variance 2019 – 2018 Volumes	%	2018 – 2017 Volumes	%
Tariff activities volumes							
Crude oil pipelines (by region):							
Permian Basin[5]	4,690	3,732	2,855	958	26%	877	31%
South Texas / Eagle Ford[5]	446	442	360	4	1%	82	23%
Central[5]	498	473	420	25	5%	53	13%
Gulf Coast	165	178	349	(13)	(7)%	(171)	(49)%
Rocky Mountain[5]	293	284	393	9	3%	(109)	(28)%
Western	198	183	184	15	8%	(1)	(1)%
Canada	323	316	352	7	2%	(36)	(10)%
Crude oil pipelines	6,613	5,608	4,913	1,005	18%	695	14%
NGL pipelines	192	183	170	9	5%	13	8%
Tariff activities total volumes	6,805	5,791	5,083	1,014	18%	708	14%
Trucking volumes	88	98	103	(10)	(10)%	(5)	(5)%
Transportation segment total volumes	6,893	5,889	5,186	1,004	17%	703	14%

** Indicates that variance as a percentage is not meaningful.

(1) Revenues and costs and expenses include intersegment amounts.

(2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.

(3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 21 to our Consolidated Financial Statements for additional discussion of such adjustments.

(4) Average daily volumes are calculated as the total volumes (attributable to our interest) for the year divided by the number of days in the year.

(5) Region includes volumes (attributable to our interest) from pipelines owned by unconsolidated entities.

The following is a discussion of items impacting Transportation segment operating results for the year ended December 31, 2019 compared to the year ended December 31, 2018. For a discussion of the 2018-2017 comparative period, see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Transportation Segment" included in our 2018 Annual Report on Form 10-K.

Revenues, Purchases and Related Costs, Equity Earnings in Unconsolidated Entities and Volumes. The following table presents variances in revenues, purchases and related costs and equity earnings in unconsolidated entities by region:

	Favorable/(Unfavorable) Variance 2019 – 2018		
(in millions)	**Revenues**	**Purchases and Related Costs**	**Equity Earnings**
Permian Basin region	$242	$(50)	$(10)
South Texas / Eagle Ford region	(3)	—	26
Central region	30	(2)	5
Gulf Coast region	1	—	(19)
Rocky Mountain region	(9)	—	9
Western	11	—	—
Canada region	25	—	—
Other regions, trucking and pipeline loss allowance revenue	33	2	2
Total variance	$330	$(50)	$ 13

Below is a discussion of the significant drivers impacting net revenues and equity earnings in unconsolidated entities for the comparative period presented:

- *Permian Basin region.* Total revenues, net of purchases and related costs, increased by approximately $192 million for the year ended December 31, 2019 compared to the year ended December 31, 2018 primarily due to higher volumes from increased production and our recently completed capital expansion projects. These increases included (i) higher volumes on our gathering systems of approximately 321,000 barrels per day, (ii) higher volumes of approximately 391,000 barrels per day on our intra-basin pipelines and (iii) a volume increase of approximately 246,000 barrels per day on our long-haul pipelines, including our Sunrise II pipeline, which was placed into service in the fourth quarter of 2018, and the Cactus II pipeline, which was placed into service in the third quarter of 2019, as discussed below.

  Equity earnings decreased in 2019 compared to 2018 primarily due to the sale of a 30% interest in BridgeTex Pipeline Company, LLC at the end of the third quarter of 2018, partially offset by equity earnings from our 65% interest in Cactus II pipeline, which was placed into service in the third quarter of 2019.

- *South Texas / Eagle Ford region.* Equity earnings from our 50% interest in Eagle Ford Pipeline LLC for 2019 compared to 2018 was favorably impacted by higher volumes and the recognition of revenue associated with deficiencies under minimum volume commitments.

- *Central region.* The increase in revenues for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to higher volumes on certain of our pipelines in the Central region, including our Red River pipeline, and the recognition of previously deferred revenue in 2019 associated with deficiencies under minimum volume commitments.

- *Gulf Coast region.* The decrease in volumes for the year ended December 31, 2019 compared to the year ended December 31, 2018 was associated with (i) the Capline pipeline being taken out of service in the fourth quarter of 2018 and (ii) a decrease in throughput on a lower tariff rate pipeline, which did not result in a significant impact on revenue.

  In the first quarter of 2019, the owners of the Capline pipeline system contributed their undivided joint interests in the system for equity interests in a legal entity. As a result, revenues and expenses from the Capline pipeline system that were previously consolidated are reflected as equity earnings. The unfavorable equity earnings variance for the year ended December 31, 2019 compared to the year ended December 31, 2018 was due to our share of operating costs from our 54.13% interest in Capline Pipeline Company LLC reflected in equity earnings in the 2019 period, whereas such costs were reflected in field operating costs in the 2018 period.

In the third quarter of 2019, the owners of Capline Pipeline Company LLC sanctioned the reversal of the Capline pipeline system and a connection to Diamond Pipeline.

- *Rocky Mountain region.* The decrease in revenues for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to the sale of one of our pipelines in the second quarter of 2018.

The favorable equity earnings variances for the year ended December 31, 2019 compared to the year ended December 31, 2018 were primarily driven by favorable results from our 40% interest in Saddlehorn Pipeline Company, LLC due to higher volumes from committed shippers, partially offset by a decrease from our 35.7% interest in White Cliffs Pipeline, LLC due to lower volumes as one crude oil line was taken out of service in May 2019 for conversion to NGL service.

- *Western region.* The increase in revenues and volumes for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to higher volumes moved from our Bakersfield rail terminal into our area pipelines.
- *Canada region.* The increase in revenues for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to higher tariffs on certain of our Canadian crude oil pipelines and related system assets, partially offset by unfavorable foreign exchange impacts.
- *Other regions, trucking and pipeline loss allowance.* The increase in other revenues for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to greater pipeline loss allowance revenue in 2019 driven by higher volumes and, to a lesser extent, higher prices.

Adjustments: Deficiencies under minimum volume commitments, net. Many industry infrastructure projects developed and completed over the last several years were underpinned by long-term minimum volume commitment contracts whereby the shipper agreed to either: (i) ship and pay for certain stated volumes or (ii) pay the agreed upon price for a minimum contract quantity. Some of these agreements include make-up rights if the minimum volume is not met. If a counterparty has a make-up right associated with a deficiency, we bill the counterparty and defer the revenue attributable to the counterparty's make-up right but record an adjustment to reflect such amount associated with the current period activity in Segment Adjusted EBITDA. We subsequently recognize the revenue, and record a corresponding reversal of the adjustment, at the earlier of when the deficiency volume is delivered or shipped, when the make-up right expires or when it is determined that the counterparty's ability to utilize the make-up right is remote.

For the year ended December 31, 2019, the recognition of previously deferred revenue exceeded amounts billed to counterparties associated with deficiencies under minimum volume commitments. For the year ended December 31, 2018, amounts billed to counterparties exceeded revenue recognized during the period that was previously deferred.

Field Operating Costs. The increase in field operating costs for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to the continued expansion of our Transportation segment operations including costs associated with personnel, power-related costs and property taxes. The expansion activities included projects placed in service in the fourth quarter of 2018, including our Sunrise II pipeline expansion within the Permian Basin region. Field operating costs were also impacted by an increase of estimated costs associated with the Line 901 incident (which impact our field operating costs but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above). See Note 19 to our Consolidated Financial Statements for additional information regarding the Line 901 incident. The increase in field operating costs was partially offset by the favorable impact of reflecting operating costs associated with the Capline pipeline system in equity earnings for the 2019 period that were included in field operating costs for the 2018 period, as discussed above.

Segment General and Administrative Expenses. The decrease in segment general and administrative expenses for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to a decrease in equity-indexed compensation expense due to fewer awards outstanding in 2019. A portion of equity-indexed compensation expense was associated with awards that will or may be settled in common units (which impact our general and administrative expenses but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above).

Maintenance Capital. Maintenance capital consists of capital expenditures for the replacement and/or refurbishment of partially or fully depreciated assets in order to maintain the operating and/or earnings capacity of our existing assets. The increase in maintenance capital for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to pump replacement projects and enhancements to our gathering systems in the Permian Basin region, partially offset by lower costs due to the completion of several large integrity management projects.

Facilities Segment

Our Facilities segment operations generally consist of fee-based activities associated with providing storage, terminalling and throughput services primarily for crude oil, NGL and natural gas, as well as NGL fractionation and isomerization services and natural gas and condensate processing services. The Facilities segment generates revenue through a combination of month-to-month and multi-year agreements and processing arrangements.

The following tables set forth our operating results from our Facilities segment:

Operating Results(1) (in millions, except per barrel data)	Year Ended December 31, 2019	2018	2017	Variance 2019 – 2018 $	%	Variance 2018 – 2017 $	%
Revenues	$1,171	$1,161	$1,173	$ 10	1%	$ (12)	(1)%
Purchases and related costs	(15)	(17)	(24)	2	12%	7	29%
Field operating costs	(360)	(360)	(350)	—	—%	(10)	(3)%
Segment general and administrative expenses(2)	(83)	(82)	(73)	(1)	(1)%	(9)	(12)%
Adjustments(3):							
Depreciation and amortization of unconsolidated entities	1	—	—	1	**	—	**
(Gains)/losses from derivative activities	(13)	—	4	(13)	**	(4)	**
Deficiencies under minimum volume commitments, net	—	(2)	—	2	**	(2)	**
Equity-indexed compensation expense	4	11	4	(7)	**	7	**
Segment Adjusted EBITDA	$ 705	$ 711	$ 734	$ (6)	(1)%	$ (23)	(3)%
Maintenance capital	$ 97	$ 100	$ 114	$ (3)	(3)%	$ (14)	(12)%
Segment Adjusted EBITDA per barrel	$ 0.47	$ 0.48	$ 0.47	$(0.01)	(2)%	$0.01	2%

Volumes(4)	Year Ended December 31, 2019	2018	2017	Variance 2019 – 2018 Volumes	%	Variance 2018 – 2017 Volumes	%
Liquids storage (average monthly capacity in millions of barrels)(5)	110	109	112	1	1%	(3)	(3)%
Natural gas storage (average monthly working capacity in billions of cubic feet)	63	66	82	(3)	(5)%	(16)	(20)%
NGL fractionation (average volumes in thousands of barrels per day)	144	131	126	13	10%	5	4%
Facilities segment total volumes (average monthly volumes in millions of barrels)(6)	125	124	130	1	1%	(6)	(5)%

** Indicates that variance as a percentage is not meaningful.

(1) Revenues and costs and expenses include intersegment amounts.

(2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.
(3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 21 to our Consolidated Financial Statements for additional discussion of such adjustments.
(4) Average monthly volumes are calculated as total volumes for the year divided by the number of months in the year.
(5) Includes volumes (attributable to our interest) from facilities owned by unconsolidated entities.
(6) Facilities segment total volumes is calculated as the sum of: (i) liquids storage capacity; (ii) natural gas storage working capacity divided by 6 to account for the 6:1 mcf of natural gas to crude Btu equivalent ratio and further divided by 1,000 to convert to monthly volumes in millions; and (iii) NGL fractionation volumes multiplied by the number of days in the year and divided by the number of months in the year.

The following is a discussion of items impacting Facilities segment operating results for the year ended December 31, 2019 compared to the year ended December 31, 2018. For a discussion of the 2018-2017 comparative period, see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Facilities Segment" included in our 2018 Annual Report on Form 10-K.

Revenues, Purchases and Related Costs and Volumes. Variances in revenues, purchases and related costs, and average monthly volumes were primarily driven by:

- *Crude Oil Storage.* Revenues increased by $11 million for the year ended December 31, 2019 compared to the year ended December 31, 2018 due to increased activity at certain of our terminals and the addition of 1 million barrels of storage capacity at our Midland terminal placed into service during 2019.

- *Natural Gas Storage.* Revenues, net of purchases and related costs, increased by $9 million for the year ended December 31, 2019 compared to the year ended December 31, 2018, primarily due to expiring contracts replaced by contracts with higher rates and increased hub activity.

- *NGL Operations.* Revenues decreased by $7 million for the year ended December 31, 2019 compared to the year ended December 31, 2018 primarily due to a net unfavorable foreign exchange impact of $10 million and the sale of a natural gas processing facility in the second quarter of 2018, partially offset by higher fees at certain of our facilities.

- *Rail Terminals.* Revenues were relatively flat for the year ended December 31, 2019 compared to the year ended December 31, 2018. Revenues were favorably impacted by increased activity at certain of our terminals, as well as agreements that were entered into related to usage of our railcars. These favorable impacts were substantially offset by the recognition of previously deferred revenue associated with deficiencies under minimum volume commitments in the 2018 period.

Field Operating Costs. Field operating costs were relatively flat for the year ended December 31, 2019 compared to the year ended December 31, 2018, as increases in property taxes, maintenance and integrity management costs, as well as higher costs at our rail terminals due to increased activity, were offset by a decrease in power-related costs associated with mark-to-market gains (which impact our field operating costs but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above).

Maintenance Capital. For the year ended December 31, 2019 compared to the year ended December 31, 2018, maintenance capital spending decreased primarily due to the impact of lower turnaround costs at certain of our NGL facilities, partially offset by increased spending at our gas storage facilities.

Supply and Logistics Segment

Revenues from our Supply and Logistics segment activities reflect the sale of gathered and bulk-purchased crude oil, as well as sales of NGL volumes. Generally, our segment results are impacted by

(i) increases or decreases in our Supply and Logistics segment volumes (which consist of lease gathering crude oil purchases volumes and NGL sales volumes), (ii) the overall strength, weakness and volatility of market conditions, including regional differentials, and (iii) the effects of competition on our lease gathering and NGL margins. In addition, the execution of our risk management strategies in conjunction with our assets can provide upside in certain markets.

The following tables set forth our operating results from our Supply and Logistics segment:

	Year Ended December 31,			Variance			
				2019 – 2018		2018 – 2017	
Operating Results[1] (in millions, except per barrel data)	**2019**	**2018**	**2017**	**$**	**%**	**$**	**%**
Revenues	$ 32,276	$ 32,822	$ 25,065	$(546)	(2)%	$ 7,757	31%
Purchases and related costs	(31,276)	(31,487)	(24,557)	211	1%	(6,930)	(28)%
Field operating costs	(258)	(276)	(254)	18	7%	(22)	(9)%
Segment general and administrative expenses[2]	(110)	(117)	(102)	7	6%	(15)	(15)%
Adjustments[3]:							
(Gains)/losses from derivative activities net of inventory valuation adjustments	173	(518)	(50)	691	**	(468)	**
Long-term inventory costing adjustments	(20)	21	(24)	(41)	**	45	**
Equity-indexed compensation expense	4	14	8	(10)	**	6	**
Net (gain)/loss on foreign currency revaluation	14	3	(26)	11	**	29	**
Segment Adjusted EBITDA	$ 803	$ 462	$ 60	$ 341	74%	$ 402	**
Maintenance capital	$ 29	$ 13	$ 13	$ 16	123%	$ —	—%
Segment Adjusted EBITDA per barrel	$ 1.61	$ 0.97	$ 0.13	$0.64	66%	$ 0.84	**

	Year Ended December 31,			2019 – 2018		2018 – 2017	
Average Daily Volumes[4] (in thousands of barrels per day)	**2019**	**2018**	**2017**	**Volume**	**%**	**Volume**	**%**
Crude oil lease gathering purchases	1,162	1,054	945	108	10%	109	12%
NGL sales	207	255	274	(48)	(19)%	(19)	(7)%
Supply and Logistics segment total volumes	1,369	1,309	1,219	60	5%	90	7%

** Indicates that variance as a percentage is not meaningful.

(1) Revenues and costs include intersegment amounts.

(2) Segment general and administrative expenses reflect direct costs attributable to each segment and an allocation of other expenses to the segments. The proportional allocations by segment require judgment by management and are based on the business activities that exist during each period.

(3) Represents adjustments included in the performance measure utilized by our CODM in the evaluation of segment results. See Note 21 to our Consolidated Financial Statements for additional discussion of such adjustments.

(4) Average daily volumes are calculated as the total volumes for the period divided by the number of days in the period.

The following table presents the range of the NYMEX West Texas Intermediate ("WTI") benchmark price of crude oil (in dollars per barrel):

During the Year Ended December 31,	NYMEX WTI Crude Oil Price Low	High
2019	$46	$66
2018	$43	$76
2017	$43	$60

Our crude oil and NGL supply, logistics and distribution operations are not directly affected by the absolute level of prices. Because the commodities that we buy and sell are generally indexed to the same pricing indices for both sales and purchases, revenues and costs related to purchases will fluctuate with market prices. However, the margins related to those sales and purchases will not necessarily have a corresponding increase or decrease. Additionally, net revenues are impacted by net gains and losses from certain derivative activities during the periods.

Our NGL operations are sensitive to weather-related demand, particularly during the approximate five-month peak heating season of November through March, and temperature differences from period-to-period may have a significant effect on NGL demand and thus our financial performance.

During 2018 and 2019, crude oil production growth and limited pipeline take-away capacity caused pipelines in many basins to operate at high levels of utilization. Specifically, regional production increases created concerns regarding pipeline take-away capacity, particularly in the Permian Basin and Western Canada, which in turn caused crude oil location differentials in these areas to widen relative to historical norms. This environment created opportunities for our Supply and Logistics segment to generate additional margin. Looking forward, we do not expect these opportunities for higher margins to continue for the foreseeable future.

Segment Adjusted EBITDA and Volumes. The following summarizes the significant items impacting our Supply and Logistics Segment Adjusted EBITDA for the year ended December 31, 2019 compared to the year ended December 31, 2018. For a discussion of the 2018-2017 comparative period, see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Supply and Logistics Segment" included in our 2018 Annual Report on Form 10-K.

- *Crude Oil Operations.* Revenues, net of purchases and related costs, ("net revenues") from our crude oil supply and logistics operations increased for the year ended December 31, 2019 compared to the year ended December 31, 2018 largely due to the realization of more favorable differentials, primarily in the Permian Basin and Canada.

- *NGL Operations.* Net revenues from our NGL operations increased for the year ended December 31, 2019 compared to the same period in 2018 primarily due to the streamlining of our NGL activities by focusing on our equity supply from our gathering and processing facilities, favorable regional differentials and the favorable impact of certain non-recurring items recorded in the second quarter of 2019.

- *Impact from Certain Derivative Activities, Net of Inventory Valuation Adjustments.* The impact from certain derivative activities on our net revenues includes mark-to-market and other gains and losses resulting from certain derivative instruments that are related to underlying activities in another period (or the reversal of mark-to-market gains and losses from a prior period), losses on derivatives that are related to investing activities (such as the purchase of linefill) and inventory valuation adjustments, as applicable. See Note 13 to our Consolidated Financial Statements for a comprehensive discussion regarding our derivatives and risk management activities. These gains and losses impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above.

- *Long-Term Inventory Costing Adjustments.* Our net revenues are impacted by changes in the weighted average cost of our crude oil and NGL inventory pools that result from price movements during the periods. These costing adjustments related to long-term inventory necessary to meet our minimum inventory requirements in third-party assets and other working inventory that was needed for our commercial operations. We consider this inventory necessary to conduct our operations and we intend to carry this inventory for the foreseeable future. These costing adjustments impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above.

- *Foreign Exchange Impacts.* Our net revenues are impacted by fluctuations in the value of CAD to USD, resulting in foreign exchange gains and losses on U.S. denominated net assets within our Canadian operations. These non-cash gains and losses impact our net revenues but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above.
- *Field Operating Costs.* The decrease in field operating costs for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily driven by a decrease in lease expense for our crude oil transportation trucks and trailers related to the adoption of the new lease accounting standard and a decrease in trucking costs due to lower company-hauled volumes, partially offset by higher third-party hauled volumes in certain regions.
- *Segment General and Administrative Expenses.* The decrease in segment general and administrative expenses for the year ended December 31, 2019 compared to the year ended December 31, 2018 was primarily due to a decrease in equity-indexed compensation expense due to fewer awards outstanding in 2019. A portion of equity-indexed compensation expense was associated with awards that will or may be settled in common units (which impact our general and administrative expenses but are excluded from Segment Adjusted EBITDA and thus are reflected as an "Adjustment" in the table above).

Maintenance Capital. For the year ended December 31, 2019 compared to the year ended December 31, 2018, maintenance capital spending increased primarily due to lease costs for our crude oil transportation trucks and trailers that are capitalized following the adoption of the new lease accounting standard.

Other Income and Expenses

The following summarizes the significant items impacting Other Income and Expenses for the year ended December 31, 2019 compared to the year ended December 31, 2018. For a discussion of the 2018-2017 comparative period, see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Other Income and Expenses" included in our 2018 Annual Report on Form 10-K.

Depreciation and Amortization

Depreciation and amortization expense increased for the year ended December 31, 2019 compared to the same period in 2018 largely driven by (i) additional depreciation expense associated with the completion of various capital expansion projects and (ii) an adjustment to the useful lives of certain assets.

Gains/Losses on Asset Sales and Asset Impairments, Net

The net loss on asset sales and asset impairments for the year ended December 31, 2019 was largely driven by a loss on the sale of a storage terminal in North Dakota. The net gain for the year ended December 31, 2018 was largely driven by a gain on the sale of certain pipelines in the Rocky Mountain region, partially offset by a loss on the sale of a non-core asset under construction.

Gain on Investment in Unconsolidated Entities

During the year ended December 31, 2019, we recognized a non-cash gain of $269 million related to a fair value adjustment resulting from the accounting for the contribution of our undivided joint interest in the Capline pipeline system for an equity interest in Capline Pipeline Company LLC. During the year ended December 31, 2018, we recognized a gain of $200 million related to our sale of a 30% interest in BridgeTex Pipeline Company, LLC. See Note 9 to our Consolidated Financial Statements for additional information.

Interest Expense

Interest expense is primarily impacted by:

- our weighted average debt balances;
- the level and maturity of fixed rate debt and interest rates associated therewith;
- market interest rates and our interest rate hedging activities; and
- interest capitalized on capital projects.

The following table summarizes the components impacting the interest expense variance (in millions, except percentages):

		Average LIBOR	Weighted Average Interest Rate[1]
Interest expense for the year ended December 31, 2017	$510	1.1%	4.4%
Impact of retirement of senior notes	(71)		
Other	(8)		
Interest expense for the year ended December 31, 2018	$431	1.9%	4.3%
Impact of borrowings under credit facilities and commercial paper program	(21)		
Impact of issuance and retirement of senior notes	10		
Other	5		
Interest expense for the year ended December 31, 2019	$425	2.2%	4.4%

(1) Excludes commitment and other fees.

Interest expense decreased for the year ended December 31, 2019 compared to the year ended December 31, 2018 primarily due to a lower weighted average debt balance during the 2019 period from lower commercial paper and credit facility borrowings, partially offset by the issuance of $1 billion, 3.55% senior notes in September 2019.

See Note 11 to our Consolidated Financial Statements for additional information regarding our debt activities during the periods presented.

Other Income/(Expense), Net

The following table summarizes the components impacting Other income/(expense), net (in millions):

	Year Ended December 31,	
	2019	2018
Gain/(loss) related to mark-to-market adjustment of our Preferred Distribution Rate Reset Option[1]	$ 2	$(14)
Net gain/(loss) on foreign currency revaluation	15	5
Other	7	2
	$24	$ (7)

(1) See Note 13 to our Consolidated Financial Statements for additional information.

Income Tax Expense

Income tax expense decreased for the year ended December 31, 2019 compared to the year ended December 31, 2018 primarily due to (i) lower deferred income tax expense associated with lower year-over-year income as impacted by fluctuations in the derivative mark-to-market valuations in our Canadian operations and (ii) the recognition of a deferred tax benefit of $60 million as a result of the reduction of the provincial tax rate in Alberta, Canada enacted during the second quarter of 2019. Such favorable impacts were partially offset by higher current income tax expense resulting from higher taxable earnings from our Canadian operations.

Outlook

Market Overview and Outlook

See Items 1. and 2. "Business and Properties — Global Petroleum Market Overview" for a discussion of recent crude oil market conditions, and see Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Analysis of Operating Segments — Supply and Logistics Segment" for information on how these conditions may impact our business for the foreseeable future.

Outlook for Certain Idled and Underutilized Assets

During 2015, we shut down Line 901 and a portion of Line 903 in California following the release of crude oil from Line 901 (see Note 19 to our Consolidated Financial Statements for additional information). During the period since these pipelines were idled, we have been assessing potential alternatives in order to return them to operation. Some of the alternatives under consideration could result in incurring costs associated with retiring certain assets or an impairment of some or all of the carrying value of the idled property and equipment, which was approximately $119 million as of December 31, 2019.

Liquidity and Capital Resources

General

Our primary sources of liquidity are (i) cash flow from operating activities as further discussed below in the section entitled "— Cash Flow from Operating Activities," (ii) borrowings under our credit facilities or commercial paper program and (iii) funds received from sales of equity and debt securities. In addition, we may supplement these sources of liquidity with proceeds from our divestiture program, as further discussed below in the section entitled "— Acquisitions, Investments, Expansion Capital Expenditures and Divestitures ." Our primary cash requirements include, but are not limited to, (i) ordinary course of business uses, such as the payment of amounts related to the purchase of crude oil, NGL and other products, other expenses and interest payments on outstanding debt, (ii) expansion and maintenance activities, (iii) acquisitions of assets or businesses, (iv) repayment of principal on our long-term debt and (v) distributions to our unitholders. We generally expect to fund our short-term cash requirements through cash flow generated from operating activities and/or borrowings under our commercial paper program or credit facilities. In addition, we generally expect to fund our long-term needs, such as those resulting from expansion activities or acquisitions and refinancing our long-term debt, through a variety of sources (either separately or in combination), which may include the sources mentioned above as funding for short-term needs and/or the issuance of additional equity or debt securities and the sale of assets.

As of December 31, 2019, although we had a working capital deficit of $405 million, we had approximately $2.5 billion of liquidity available to meet our ongoing operating, investing and financing needs, subject to continued covenant compliance, as noted below (in millions):

	As of December 31, 2019
Availability under senior unsecured revolving credit facility[(1)(2)]	$1,464
Availability under senior secured hedged inventory facility[(1)(2)]	1,054
Amounts outstanding under commercial paper program	(93)
Subtotal	2,425
Cash and cash equivalents	45
Total	$2,470

(1) Represents availability prior to giving effect to borrowings outstanding under our commercial paper program, which reduce available capacity under the facilities.

(2) Available capacity under our senior unsecured revolving credit facility and senior secured hedged inventory facility was reduced by outstanding letters of credit of $136 million and $21 million, respectively.

We believe that we have, and will continue to have, the ability to access the commercial paper program and credit facilities, which we use to meet our short-term cash needs. We believe that our financial position remains strong and we have sufficient liquidity; however, extended disruptions in the financial markets and/or energy price volatility that adversely affect our business may have a materially adverse effect on our financial condition, results of operations or cash flows. In addition, usage of our credit facilities, which provide the financial backstop for our commercial paper program, is subject to ongoing compliance with covenants. As of December 31, 2019, we were in compliance with all such covenants. Also, see Item 1A. "Risk Factors" for further discussion regarding such risks that may impact our liquidity and capital resources.

Cash Flow from Operating Activities

The primary drivers of cash flow from operating activities are (i) the collection of amounts related to the sale of crude oil, NGL and other products, the transportation of crude oil and other products for a fee, and the provision of storage and terminalling services for a fee and (ii) the payment of amounts related to the purchase of crude oil, NGL and other products and other expenses, principally field operating costs, general and administrative expenses and interest expense.

Cash flow from operating activities can be materially impacted by the storage of crude oil in periods of a contango market, when the price of crude oil for future deliveries is higher than current prices. In the month we pay for the stored crude oil, we borrow under our credit facilities or commercial paper program (or use cash on hand) to pay for the crude oil, which negatively impacts operating cash flow. Conversely, cash flow from operating activities increases during the period in which we collect the cash from the sale of the stored crude oil. Similarly, the level of NGL and other product inventory stored and held for resale at period end affects our cash flow from operating activities.

In periods when the market is not in contango, we typically sell our crude oil during the same month in which we purchase it and we do not rely on borrowings under our credit facilities or commercial paper program to pay for the crude oil. During such market conditions, our accounts payable and accounts receivable generally move in tandem as we make payments and receive payments for the purchase and sale of crude oil in the same month, which is the month following such activity. In periods during which we build inventory, regardless of market structure, we may rely on our credit facilities or commercial paper program to pay for the inventory. In addition, we use derivative instruments to manage the risks associated with the purchase and sale of our commodities. Therefore, our cash flow from operating activities may be impacted by the margin deposit requirements related to our derivative activities. See Note 13 to our Consolidated Financial Statements for a discussion regarding our derivatives and risk management activities.

Net cash provided by operating activities for the years ended December 31, 2019, 2018 and 2017 was approximately $2.5 billion, $2.6 billion and $2.5 billion, respectively, and primarily resulted from earnings from our operations. Additionally, as discussed further below, changes during these periods in our inventory levels and associated margin balances required as part of our hedging activities impacted our cash flow from operating activities.

During 2019, our cash provided by operating activities was positively impacted by the proceeds from the sale of NGL and crude oil inventory that we held and also by the lower weighted average price of NGL inventory compared to prior year amounts.

During 2018, our cash provided by operating activities was favorably impacted by approximately $250 million of cash received for transactions for which the revenue has been deferred pending the completion of future performance obligations. See Note 3 to our Consolidated Financial Statements for additional information. The favorable impact was partially offset by an increase in the volume of crude oil inventory that we held, which was funded from earnings from our operations and proceeds from asset sales.

During 2017, net cash provided by operating activities was positively impacted by decreases in (i) the volume of crude oil inventory that we held and (ii) the margin balances required as part of our hedging activities, both of which had been funded by short-term debt. This was consistent with our plan to reduce our hedged inventory volumes, and the cash inflows associated with these items resulted in a favorable impact on our cash provided by operating activities. However, the favorable effects from such activities were partially offset by higher weighted average prices and volumes for NGL inventory that was purchased and stored at the end of the 2017 period in anticipation of the 2017-2018 heating season.

Acquisitions, Investments, Expansion Capital Expenditures and Divestitures

In addition to our operating needs discussed above, we also use cash for our acquisition activities and expansion capital projects and maintenance capital activities. Historically, we have financed these expenditures primarily with cash generated by operating activities and the financing activities discussed in "— Equity and Debt Financing Activities" below. In recent years, we have also used proceeds from our divestiture program, as discussed further below. We have made and will continue to make capital expenditures for acquisitions, expansion capital projects and maintenance activities. However, in the near term, we do not plan to issue common equity to fund such activities. Also see "— Acquisitions, Capital Projects and Divestitures" for further discussion of such capital expenditures.

Acquisitions. The price of acquisitions includes cash paid, assumed liabilities and net working capital items. Because of the non-cash items included in the total price of the acquisition and the timing of certain cash payments, the net cash paid may differ significantly from the total price of the acquisitions completed during the year. During the years ended December 31, 2019 and 2017, we paid cash of $50 million and $1.280 billion (net of cash acquired of $4 million), respectively, for acquisitions. We did not acquire any assets in 2018.

Investments. Over the last several years, we have increased our JV related activities with long-term partners throughout the industry value chain. The vast majority of our joint ventures are accounted for as investments in unconsolidated subsidiaries. We generally fund our portion of development, construction or capital expansion projects of our equity method investees through capital contributions. See Note 9 to our Consolidated Financial Statements for additional information regarding our investments in unconsolidated entities. During the years ended December 31, 2019, 2018 and 2017, we made cash contributions of $504 million, $459 million and $398 million, respectively, to certain of our equity method investees. We anticipate that we will make additional contributions in 2020 associated with ongoing projects for construction and/or expansion projects related to our interests in Wink to Webster, Red Oak, Cactus II, Capline, Diamond and Saddlehorn joint venture pipelines.

Divestitures. We have initiated a program to evaluate potential sales of non-core assets and/or sales of partial interests in assets to strategic joint venture partners. During the years ended December 31, 2019, 2018 and 2017, we received proceeds of $205 million, $1.3 billion and $1.1 billion, respectively from sales of assets. See Note 7 to our Consolidated Financial Statements for additional information. Proceeds received during 2019 include $128 million received for a 33% interest in the newly formed joint venture Red River Pipeline Company LLC. See Note 12 to our Consolidated Financial Statements for additional information. We intend to continue these efforts in 2020.

Ongoing Acquisition and Divestiture Activities. In January 2020, we acquired a crude oil gathering system and related assets in the Delaware Basin for approximately $305 million. In addition, in the first quarter of 2020, we completed and/or entered into definitive agreements for asset sales of approximately $273 million. See Note 7 to our Consolidated Financial Statements for additional information.

2020 Capital Projects. The majority of our 2020 expansion capital program will be invested in our fee-based Transportation and Facilities segments. We expect that our investments will have minimal contributions to our 2020 results, but will provide growth for 2021 and beyond. Our 2020 capital program includes the following projects as of February 2020 with the estimated cost for the entire year (in millions):

Projects	2020
Long-Haul Pipeline Projects	$ 450
Permian Basin Takeaway Pipeline Projects	395
Complementary Permian Basin Projects	275
Selected Facilities Projects	80
Other Projects	200
Total Projected 2020 Expansion Capital Expenditures	$1,400

Credit Agreements, Commercial Paper Program and Indentures

At December 31, 2019, we had three primary credit arrangements. These include a $1.6 billion senior unsecured revolving credit facility maturing in 2024, a $1.4 billion senior secured hedged inventory facility maturing in 2022 (excluding aggregate commitments of $45 million, which mature in 2021) and a $3.0 billion unsecured commercial paper program that is backstopped by our revolving credit facility and our hedged inventory facility. Additionally, we have two $100 million GO Zone term loans as discussed further below. The credit agreements for our revolving credit facilities (which impact our ability to access our commercial paper program because they provide the financial backstop that supports our short-term credit ratings) and our term loans and the indentures governing our senior notes contain cross-default provisions. A default under our credit agreements or indentures would permit the lenders to accelerate the maturity of the outstanding debt. As long as we are in compliance with the provisions in our credit agreements, our ability to make distributions of available cash is not restricted. We were in compliance with the covenants contained in our credit agreements and indentures as of December 31, 2019.

In August 2018, we entered into an agreement for two $100 million GO Zone term loans from the remarketing of our GO Bonds. The GO Zone term loans accrue interest in accordance with the interest payable on the related GO Bonds as provided in the GO Bonds Indenture pursuant to which such GO Bonds are issued and governed. The purchasers of the two GO Zone term loans have the right to put, at par, the GO Zone term loans in July 2023. The GO Bonds mature by their terms in May 2032 and August 2035, respectively. See Note 11 to our Consolidated Financial Statements for additional information.

During the year ended December 31, 2019, we had net borrowings under our credit facilities and commercial paper program of $418 million. The net borrowings resulted primarily from borrowings during the period related to funding needs for general partnership purposes.

During the year ended December 31, 2018, we had net repayments on our credit facilities and commercial paper program of $901 million. The net repayments resulted primarily from cash flow from operating activities and proceeds from asset sales, which offset borrowings during the period related to funding needs for capital investments, inventory purchases and other general partnership purposes.

During the year ended December 31, 2017, we had net repayments on our credit facilities and commercial paper program of $654 million. The net repayments resulted primarily from cash flow from operating activities and cash received from our equity activities and asset divestitures, which offset borrowings during the period related to funding needs for (i) acquisition and capital investments, (ii) repayment of our $400 million, 6.13% senior notes in January 2017, (iii) repayment of our $600 million, 6.50% senior notes and our $350 million, 8.75% senior notes in December 2017 and (iv) other general partnership purposes.

Equity and Debt Financing Activities

Our financing activities primarily relate to funding expansion capital projects, acquisitions and refinancing of our debt maturities, as well as short-term working capital (including borrowings for NYMEX and ICE margin deposits) and hedged inventory borrowings related to our NGL business and contango market activities. Our financing activities have primarily consisted of equity offerings, senior notes offerings and borrowings and repayments under our credit facilities or commercial paper program and other debt agreements, as well as payment of distributions to our unitholders.

Registration Statements. We periodically access the capital markets for both equity and debt financing. We have filed with the SEC a universal shelf registration statement that, subject to effectiveness at the time of use, allows us to issue up to an aggregate of $1.1 billion of debt or equity securities ("Traditional Shelf"). All issuances of equity securities associated with our continuous offering program have been issued pursuant to the Traditional Shelf. We did not conduct any offerings under our Traditional Shelf during the years ended December 31, 2019 or 2018. At December 31, 2019, we had approximately $1.1 billion of unsold securities available under the Traditional Shelf. We also have access to a universal shelf registration statement ("WKSI Shelf"), which provides us with the ability to offer and sell an unlimited amount of debt and equity securities, subject to market conditions and our capital needs. The issuance of $1.0 billion, 3.55% senior notes in September 2019 and our Series B preferred units in October 2017, as discussed further below, were conducted under our WKSI Shelf.

Preferred Units. On October 10, 2017, we issued 800,000 Series B preferred units at a price to the public of $1,000 per unit. We used the net proceeds of $788 million, after deducting the underwriters' discounts and offering expenses, from the issuance of the Series B preferred units to repay amounts outstanding under our credit facilities and commercial paper program and for general partnership purposes, including expenditures for our capital program. See "Distributions to Our Unitholders " below and Note 12 to our Consolidated Financial Statements for additional information regarding the Series B preferred units.

While our Series A and Series B preferred units are considered equity securities and are classified within partners' capital on our Consolidated Balance Sheet, the two out of the three rating agencies that rate us as investment grade only ascribe 50% equity credit with the remaining 50% considered debt for purposes of determining our credit ratings. The remaining rating agency ascribes 100% equity credit while we are rated below investment grade, but will change its approach to 50% equity credit and 50% debt if the rating agency changes our rating to investment grade.

Common Units. We did not sell any common units during the years ended December 31, 2019 or 2018. During the year ended December 31, 2017, we sold approximately 54.1 million common units for proceeds of approximately $1.7 billion, which were used for general partnership purposes, including repayment of amounts borrowed to fund the ACC Acquisition. See Note 12 to our Consolidated Financial Statements for additional information related to these sales of common units.

Issuances of Senior Notes. We did not issue any senior unsecured notes during the years ended December 31, 2018 or 2017. During 2019, we issued senior unsecured notes as summarized in the table below (in millions):

Year	Description	Maturity	Face Value	Gross Proceeds(1)	Net Proceeds(2)
2019	3.55% Senior Notes issued at 99.801% of face value	December 2029	$ 1,000	$ 998	$ 989

(1) Face value of notes less the applicable premium or discount (before deducting for initial purchaser discounts, commissions and offering expenses).

(2) Face value of notes less the applicable premium or discount, initial purchaser discounts, commissions and offering expenses. We used the net proceeds from the offering to partially repay the principal amounts of our 2.60% senior notes due December 2019 and 5.75% senior notes due January 2020 and for general partnership purposes.

Repayments of Senior Notes. We did not repay any senior unsecured notes during 2018. During 2019 and 2017, we repaid the following senior unsecured notes (in millions):

Year	Description	Repayment Date
2019	$500 million 2.60% Senior Notes due December 2019	November 2019(1)
2019	$500 million 5.75% Senior Notes due January 2020	December 2019(1)
2017	$400 million 6.13% Senior Notes due January 2017	January 2017(2)
2017	$600 million 6.50% Senior Notes due May 2018	December 2017(2)(3)
2017	$350 million 8.75% Senior Notes due May 2019	December 2017(2)(3)

(1) We repaid these senior notes with proceeds from our 3.55% senior notes issued in September 2019 and cash on hand.

(2) We repaid these senior notes with cash on hand and proceeds from borrowings under our credit facilities and commercial paper program.

(3) In conjunction with the early redemptions of these senior notes, we recognized a loss of approximately $40 million, recorded to "Other income/(expense), net" in our Consolidated Statement of Operations.

Distributions to Our Unitholders

In accordance with our partnership agreement, after making distributions to holders of our outstanding preferred units, we distribute the remainder of our available cash to our common unitholders of record within 45 days following the end of each quarter. Available cash is generally defined as all of our cash and cash equivalents on hand at the end of each quarter less reserves established in the discretion of our general partner for future requirements. Our levels of financial reserves are established by our general partner and include reserves for the proper conduct of our business (including future capital expenditures and anticipated credit needs), compliance with law or contractual obligations and funding of future distributions to our Series A and Series B preferred unitholders. Our available cash also includes cash on hand resulting from borrowings made after the end of the quarter.

See Note 12 to our Consolidated Financial Statements for details of distributions paid during the three years ended December 31, 2019. Also, see Item 5. "Market for Registrant's Common Units, Related Unitholder Matters and Issuer Purchases of Equity Securities — Cash Distribution Policy" for additional discussion regarding distributions.

Distributions to our Series A preferred unitholders. Holders of our Series A preferred units are entitled to receive quarterly distributions, subject to customary anti-dilution adjustments, of $0.525 per unit ($2.10 per unit annualized), which commenced with the quarter ending March 31, 2016. With respect to each quarter ending on or prior to December 31, 2017, we elected to pay distributions on our Series A preferred units in additional Series A preferred units. Beginning with the distribution with respect to the quarter ended March 31, 2018, distributions on our Series A preferred units are paid in cash. Subject to certain limitations, following January 28, 2021, the holders of our Series A preferred units may make a one-time election to reset the distribution rate. See Note 12 to our Consolidated Financial Statements for additional information.

Distributions to our Series B preferred unitholders. Holders of our Series B preferred units are entitled to receive, when, as and if declared by our general partner out of legally available funds for such purpose, cumulative cash distributions, as applicable. Through and including November 15, 2022, holders are entitled to a distribution equal to $61.25 per unit per year, payable semiannually in arrears on the 15th day of May and November. See Note 12 to our Consolidated Financial Statements for further discussion of our Series B preferred units, including distribution rates and payment dates after November 15, 2022.

Distributions to our common unitholders. On February 14, 2020, we paid a quarterly distribution of $0.36 per common unit ($1.44 per unit on an annualized basis). The total distribution of $262 million was paid to unitholders of record as of January 31, 2020, with respect to the quarter ending December 31, 2019.

We believe that we have sufficient liquid assets, cash flow from operating activities and borrowing capacity under our credit agreements to meet our financial commitments, debt service obligations, contingencies and anticipated capital expenditures. We are, however, subject to business and operational risks that could adversely affect our cash flow. A prolonged material decrease in our cash flows would likely produce an adverse effect on our borrowing capacity.

Contingencies

For a discussion of contingencies that may impact us, see Note 19 to our Consolidated Financial Statements.

Commitments

Contractual Obligations. In the ordinary course of doing business, we purchase crude oil and NGL from third parties under contracts, the majority of which range in term from thirty-day evergreen to five years, with a limited number of contracts with remaining terms extending up to ten years. We establish a margin for these purchases by entering into various types of physical and financial sale and exchange transactions through which we seek to maintain a position that is substantially balanced between purchases on the one hand and sales and future delivery obligations on the other. The table below includes purchase obligations related to these activities. Where applicable, the amounts presented represent the net obligations associated with our counterparties (including giving effect to netting buy/sell contracts and those subject to a net settlement arrangement). We do not expect to use a significant amount of internal capital to meet these obligations, as the obligations will be funded by corresponding sales to entities that we deem creditworthy or who have provided credit support we consider adequate.

The following table includes our best estimate of the amount and timing of these payments as well as other amounts due under the specified contractual obligations as of December 31, 2019 (in millions):

	2020	2021	2022	2023	2024	2025 and Thereafter	Total
Long-term debt and related interest payments[1]	$ 411	$ 984	$ 1,115	$ 1,636	$ 1,055	$ 8,753	$13,954
Leases[2]	130	99	91	69	57	308	754
Other obligations[3]	1,098	743	306	293	287	1,194	3,921
Subtotal	1,639	1,826	1,512	1,998	1,399	10,255	18,629
Crude oil, NGL and other purchases[4]	14,836	12,525	12,028	10,893	9,650	16,789	76,721
Total	$16,475	$14,351	$13,540	$12,891	$11,049	$27,044	$95,350

(1) Includes debt service payments, interest payments due on senior notes and the commitment fee on assumed available capacity under our credit facilities, as well as long-term borrowings under our credit agreements and commercial paper program, if any. Although there may be short-term borrowings under our credit agreements and commercial paper program, we historically repay and borrow at varying amounts. As such, we have included only the maximum commitment fee (as if no short-term borrowings were outstanding on the credit agreements or commercial paper program) in the amounts above. For additional information regarding our debt obligations, see Note 11 to our Consolidated Financial Statements.

(2) Includes both operating and finance leases as defined by FASB guidance. Leases are primarily for (i) railcars, (ii) office space, (iii) land, (iv) vehicles, (v) storage tanks and (vi) tractor trailers. See Note 14 to our Consolidated Financial Statements for additional information.

(3) Includes (i) other long-term liabilities, (ii) storage, processing and transportation agreements (including certain agreements for which the amount and timing of expected payments is subject to the completion of underlying construction projects), (iii) certain rights-of-way easements and (iv) noncancelable commitments related to our capital expansion projects, including projected contributions for our share of the capital spending of our equity method investments. The storage, processing and transportation agreements include approximately $1.8 billion associated with agreements to store, process and transport crude oil at posted tariff rates on pipelines or at facilities that are owned by equity method investees.

A portion of our commitment to transport is supported by crude oil buy/sell or other agreements with third parties with commensurate quantities.

(4) Amounts are primarily based on estimated volumes and market prices based on average activity during December 2019. The actual physical volume purchased and actual settlement prices will vary from the assumptions used in the table. Uncertainties involved in these estimates include levels of production at the wellhead, weather conditions, changes in market prices and other conditions beyond our control.

Letters of Credit. In connection with supply and logistics activities, we provide certain suppliers with irrevocable standby letters of credit to secure our obligation for the purchase and transportation of crude oil, NGL and natural gas. Our liabilities with respect to these purchase obligations are recorded in accounts payable on our balance sheet in the month the product is purchased. Generally, these letters of credit are issued for periods of up to seventy days and are terminated upon completion of each transaction. Additionally, we issue letters of credit to support insurance programs, derivative transactions, including hedging-related margin obligations, and construction activities. At December 31, 2019 and 2018, we had outstanding letters of credit of approximately $157 million and $184 million, respectively.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined by Item 303 of Regulation S-K.

Investments in Unconsolidated Entities

We have invested in entities that are not consolidated in our financial statements. Certain of these entities are borrowers under credit facilities. We are neither a co-borrower nor a guarantor under any facilities of such entities. We may elect at any time to make additional capital contributions to any of these entities. The following table sets forth selected information regarding these entities as of December 31, 2019 (unaudited, dollars in millions):

Entity	Type of Operation	Our Ownership Interest	Total Entity Assets	Total Cash and Restricted Cash	Total Entity Debt
Advantage Pipeline Holdings LLC	Crude Oil Pipeline	50%	$ 153	$11	$—
BridgeTex Pipeline Company, LLC	Crude Oil Pipeline	20%	$ 889	$42	$—
Cactus II Pipeline LLC	Crude Oil Pipeline(2)	65%	$1,195	$57	$—
Caddo Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 127	$ 5	$—
Capline Pipeline Company LLC	Crude Oil Pipeline	54%	$1,173	$42	$—
Cheyenne Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 63	$ 4	$—
Cushing Connect Pipeline & Terminal LLC	Crude Oil Pipeline(1) and Terminal(2)	50%	$ 49	$ 7	$—
Diamond Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 933	$ 1	$—
Eagle Ford Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 819	$20	$—
Eagle Ford Terminals Corpus Christi LLC	Crude Oil Terminal and Dock(2)	50%	$ 229	$ 2	$—
Midway Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 41	$ 5	$—
Red Oak Pipeline LLC	Crude Oil Pipeline(1)	50%	$ 57	$—	$—
Saddlehorn Pipeline Company, LLC	Crude Oil Pipeline	40%	$ 604	$37	$—
Settoon Towing, LLC	Barge Transportation Services	50%	$ 55	$ 8	$ 3
STACK Pipeline LLC	Crude Oil Pipeline(2)	50%	$ 152	$ 2	$—
White Cliffs Pipeline, LLC	Crude Oil Pipeline	36%	$ 531	$18	$—
Wink to Webster Pipeline LLC	Crude Oil Pipeline(1)	16%	$ 845	$76	$—

(1) Asset is currently under construction or development by the entity and has not yet been placed in service.

(2) We serve as operator of the asset.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to various market risks, including (i) commodity price risk, (ii) interest rate risk and (iii) currency exchange rate risk. We use various derivative instruments to manage such risks and, in certain circumstances, to realize incremental margin during volatile market conditions. Our risk management policies and procedures are designed to help ensure that our hedging activities address our risks by monitoring our exchange-cleared and over-the-counter positions, as well as physical volumes, grades, locations, delivery schedules and storage capacity. We have a risk management function that has direct responsibility and authority for our risk policies, related controls around commercial activities and certain aspects of corporate risk management. Our risk management function also approves all new risk management strategies through a formal process. The following discussion addresses each category of risk.

Commodity Price Risk

We use derivative instruments to hedge price risk associated with the following commodities:

- *Crude oil*

We utilize crude oil derivatives to hedge commodity price risk inherent in our Supply and Logistics and Transportation segments. Our objectives for these derivatives include hedging anticipated purchases and sales, stored inventory, basis differentials and storage capacity utilization. We manage these exposures with various instruments including futures, forwards, swaps and options.

- *Natural gas*

We utilize natural gas derivatives to hedge commodity price risk inherent in our Supply and Logistics and Facilities segments. Our objectives for these derivatives include hedging anticipated purchases of natural gas. We manage these exposures with various instruments including futures, swaps and options.

- *NGL and other*

We utilize NGL derivatives, primarily propane and butane derivatives, to hedge commodity price risk inherent in our Supply and Logistics segment. Our objectives for these derivatives include hedging anticipated purchases and sales and stored inventory. We manage these exposures with various instruments including futures, forwards, swaps and options.

See Note 13 to our Consolidated Financial Statements for further discussion regarding our hedging strategies and objectives.

The fair value of our commodity derivatives and the change in fair value as of December 31, 2019 that would be expected from a 10% price increase or decrease is shown in the table below (in millions):

	Fair Value	Effect of 10% Price Increase	Effect of 10% Price Decrease
Crude oil	$ 31	$(45)	$47
Natural gas	7	$ 6	$ (6)
NGL and other	92	$(13)	$13
Total fair value	$130		

The fair values presented in the table above reflect the sensitivity of the derivative instruments only and do not include the effect of the underlying hedged commodity. Price-risk sensitivities were calculated by assuming an across-the-board 10% increase or decrease in price regardless of term or historical relationships between the contractual price of the instruments and the underlying commodity price. In the event of an actual 10% change in near-term commodity prices, the fair value of our derivative portfolio would typically change less than that shown in the table as changes in near-term prices are not typically mirrored in delivery months further out.

Interest Rate Risk

Our use of variable rate debt and any forecasted issuances of fixed rate debt expose us to interest rate risk. Therefore, from time to time, we use interest rate derivatives to hedge interest rate risk associated with anticipated interest payments and, in certain cases, outstanding debt instruments. All of our senior notes are fixed rate notes and thus are not subject to interest rate risk. Our variable rate debt outstanding at December 31, 2019, approximately $618 million, was subject to interest rate re-sets that generally range from one day to approximately one month. The average interest rate on variable rate debt that was outstanding during the year ended December 31, 2019 was 3.0%, based upon rates in effect during the year. The fair value of our interest rate derivatives was a liability of $44 million as of December 31, 2019. A 10% increase in the forward LIBOR curve as of December 31, 2019 would have resulted in an increase of $9 million to the fair value of our interest rate derivatives. A 10% decrease in the forward LIBOR curve as of December 31, 2019 would have resulted in a decrease of $9 million to the fair value of our interest rate derivatives. See Note 13 to our Consolidated Financial Statements for a discussion of our interest rate risk hedging activities.

Currency Exchange Rate Risk

We use foreign currency derivatives to hedge foreign currency exchange rate risk associated with our exposure to fluctuations in the USD-to-CAD exchange rate. Because a significant portion of our Canadian business is conducted in CAD we use certain financial instruments to minimize the risks of unfavorable changes in exchange rates. These instruments include foreign currency exchange contracts, forwards and options. The fair value of our foreign currency derivatives was an asset of $1 million as of December 31, 2019. A 10% increase in the exchange rate (USD-to-CAD) would have resulted in a decrease of less than $1 million to the fair value of our foreign currency derivatives. A 10% decrease in the exchange rate (USD-to-CAD) would have resulted in an increase of less than $1 million to the fair value of our foreign currency derivatives. See Note 13 to our Consolidated Financial Statements for a discussion of our currency exchange rate risk hedging.

Preferred Distribution Rate Reset Option

The Preferred Distribution Rate Reset Option of our Series A preferred units is an embedded derivative that must be bifurcated from the related host contract, our partnership agreement, and recorded at fair value in our Consolidated Balance Sheets. The valuation model utilized for this embedded derivative contains inputs including our common unit price, ten-year U.S. treasury rates, default probabilities and timing estimates to ultimately calculate the fair value of our Series A preferred units with and without the Preferred Distribution Rate Reset Option. The fair value of this embedded derivative was a liability of $34 million as of December 31, 2019. A 10% increase or decrease in the fair value would have an impact of $3 million. See Note 13 to our Consolidated Financial Statements for a discussion of embedded derivatives.

Item 8. *Financial Statements and Supplementary Data*

See "Index to the Consolidated Financial Statements" on page F-1.

Item 9. *Changes In and Disagreements With Accountants on Accounting and Financial Disclosure*

None.

Item 9A. *Controls and Procedures*

Disclosure Controls and Procedures

We maintain written disclosure controls and procedures, which we refer to as our "DCP." Our DCP is designed to ensure that information required to be disclosed by us in reports that we file under the Securities Exchange Act of 1934 (the "Exchange Act") is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, to allow for timely decisions regarding required disclosure.

Applicable SEC rules require an evaluation of the effectiveness of our DCP. Management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our DCP as of December 31, 2019, the end of the period covered by this report, and, based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our DCP is effective.

Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. "Internal control over financial reporting" is a process designed by, or under the supervision of, our Chief Executive Officer and our Chief Financial Officer, and effected by our Board of Directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our management, including our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our internal control over financial reporting as of December 31, 2019. See "Management's Report on Internal Control Over Financial Reporting" on page F-2 of our Consolidated Financial Statements.

Our independent registered public accounting firm, PricewaterhouseCoopers LLP, assessed the effectiveness of our internal control over financial reporting, as stated in the firm's report. See "Report of Independent Registered Public Accounting Firm" on page F-3 of our Consolidated Financial Statements.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the fourth quarter of 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Certifications

The certifications of our Chief Executive Officer and Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a) are filed with this report as Exhibits 31.1 and 31.2. The certifications of our Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. 1350 are furnished with this report as Exhibits 32.1 and 32.2.

Item 9B. ***Other Information***

There was no information that was required to be disclosed in a report on Form 8-K during the fourth quarter of 2019 that has not previously been reported.