PART IV

Item 15. *Exhibits and Financial Statement Schedules*

(a)(1) *Financial Statements*

See "Index to the Consolidated Financial Statements" set forth on Page F-1.

(2) *Financial Statement Schedules*

All schedules are omitted because they are either not applicable or the required information is shown in the Consolidated Financial Statements or notes thereto.

(3) *Exhibits*

Exhibit No.		Description
2.1*	—	Simplification Agreement dated as of July 11, 2016, by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC and Plains All American Pipeline, L.P. (incorporated by reference to Exhibit 2.1 to our Current Report on Form 8-K filed July 14, 2016).
2.2*	—	Securities Purchase Agreement dated as of January 19, 2017 by and between COG Operating LLC, as seller, and Plains Pipeline, L.P., as purchaser (the schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K) (incorporated by reference to Exhibit 2.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
2.3*	—	Securities Purchase Agreement dated as of January 19, 2017 by and between Frontier Midstream Solutions, LLC, as seller, and Plains Pipeline, L.P., as purchaser (the schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K) (incorporated by reference to Exhibit 2.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
3.1	—	Seventh Amended and Restated Agreement of Limited Partnership of Plains All American Pipeline, L.P. dated as of October 10, 2017 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed October 12, 2017).
3.2	—	Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. dated as of April 1, 2004 (incorporated by reference to Exhibit 3.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004).
3.3	—	Amendment No. 1 dated December 31, 2010 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.9 to our Annual Report on Form 10-K for the year ended December 31, 2010).
3.4	—	Amendment No. 2 dated January 1, 2011 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2010).
3.5	—	Amendment No. 3 dated June 30, 2011 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.7 to our Annual Report on Form 10-K for the year ended December 31, 2013).
3.6	—	Amendment No. 4 dated January 1, 2013 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P (incorporated by reference to Exhibit 3.8 to our Annual Report on Form 10-K for the year ended December 31, 2013).

Exhibit No.		Description
3.7	—	Amendment No. 5 dated December 1, 2019 to the Third Amended and Restated Agreement of Limited Partnership of Plains Marketing, L.P. (incorporated by reference to Exhibit 3.7 to our Annual Report on Form 10-K for the year ended December 31, 2019.)
3.8	—	Third Amended and Restated Agreement of Limited Partnership of Plains Pipeline, L.P. dated as of April 1, 2004 (incorporated by reference to Exhibit 3.3 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2004).
3.9	—	Amendment No. 1 dated January 1, 2013 to the Third Amended and Restated Agreement of Limited Partnership of Plains Pipeline, L.P. (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2013).
3.10	—	Seventh Amended and Restated Limited Liability Company Agreement of Plains All American GP LLC dated November 15, 2016 (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K filed November 21, 2016).
3.11	—	Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. dated November 15, 2016 (incorporated by reference to Exhibit 3.4 to our Current Report on Form 8-K filed November 21, 2016).
3.12	—	Amendment No. 1 dated September 26, 2018 to the Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed October 2, 2018).
3.13	—	Amendment No. 2 dated May 23, 2019 to the Eighth Amended and Restated Limited Partnership Agreement of Plains AAP, L.P. (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed May 30, 2019).
3.14	—	Certificate of Incorporation of PAA Finance Corp. (f/k/a Pacific Energy Finance Corporation, successor-by-merger to PAA Finance Corp.) (incorporated by reference to Exhibit 3.10 to our Annual Report on Form 10-K for the year ended December 31, 2006).
3.15	—	Bylaws of PAA Finance Corp. (f/k/a Pacific Energy Finance Corporation, successor-by-merger to PAA Finance Corp.) (incorporated by reference to Exhibit 3.11 to our Annual Report on Form 10-K for the year ended December 31, 2006).
3.16	—	Limited Liability Company Agreement of PAA GP LLC dated December 28, 2007 (incorporated by reference to Exhibit 3.3 to our Current Report on Form 8-K filed January 4, 2008).
3.17	—	Certificate of Limited Partnership of Plains GP Holdings, L.P. (incorporated by reference to Exhibit 3.1 to PAGP's Registration Statement on Form S-1 (333-190227) filed July 29, 2013).
3.18	—	Second Amended and Restated Agreement of Limited Partnership of Plains GP Holdings, L.P. dated as of November 15, 2016 (incorporated by reference to Exhibit 3.2 to PAGP's Current Report on Form 8-K filed November 21, 2016).
3.19	—	Amendment No. 1 dated April 6, 2020 to the Second Amended and Restated Agreement of Limited Partnership of Plains GP Holdings, L.P. (incorporated by reference to Exhibit 3.1 to PAGP's Current Report on Form 8-K filed April 9, 2020).
3.20	—	Certificate of Formation of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.3 to PAGP's Registration Statement on Form S-1 (333-190227) filed July 29, 2013).

Exhibit No.		Description
3.21	—	Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC dated as of February 16, 2017 (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed February 21, 2017).
3.22	—	Amendment No. 1 dated October 1, 2018 to the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed August 20, 2018).
3.23	—	Amendment No. 2 dated December 10, 2018 to the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed December 11, 2018).
3.24	—	Amendment No. 3 dated November 21, 2019 to the Third Amended and Restated Limited Liability Company Agreement of PAA GP Holdings LLC (incorporated by reference to Exhibit 3.1 to our Current Report on Form 8-K filed November 27, 2019).
4.1	—	Indenture dated September 25, 2002 among Plains All American Pipeline, L.P., PAA Finance Corp. and Wachovia Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2002).
4.2	—	Sixth Supplemental Indenture (Series A and Series B 6.70% Senior Notes due 2036) dated May 12, 2006 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and Wachovia Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed May 12, 2006).
4.3	—	Tenth Supplemental Indenture (Series A and Series B 6.650% Senior Notes due 2037) dated October 30, 2006 among Plains All American Pipeline, L.P., PAA Finance Corp., the Subsidiary Guarantors named therein and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.2 to our Current Report on Form 8-K filed October 30, 2006).
4.4	—	Twentieth Supplemental Indenture (3.65% Senior Notes due 2022) dated March 22, 2012 among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed March 26, 2012).
4.5	—	Twenty-First Supplemental Indenture (5.15% Senior Notes due 2042) dated March 22, 2012 among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed March 26, 2012).
4.6	—	Twenty-Second Supplemental Indenture (2.85% Senior Notes due 2023) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed December 12, 2012).
4.7	—	Twenty-Third Supplemental Indenture (4.30% Senior Notes due 2043) dated December 10, 2012, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed December 12, 2012).
4.8	—	Twenty-Fourth Supplemental Indenture (3.85% Senior Notes due 2023) dated August 15, 2013, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed August 15, 2013).

Exhibit No.		Description
4.9	—	Twenty-Fifth Supplemental Indenture (4.70% Senior Notes due 2044) dated April 23, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed April 29, 2014).
4.10	—	Twenty-Sixth Supplemental Indenture (3.60% Senior Notes due 2024) dated September 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed September 11, 2014).
4.11	—	Twenty-Eighth Supplemental Indenture (4.90% Senior Notes due 2045) dated December 9, 2014, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.3 to our Current Report on Form 8-K filed December 11, 2014).
4.12	—	Twenty-Ninth Supplemental Indenture (4.65% Senior Notes due 2025) dated August 24, 2015, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed August 26, 2015).
4.13	—	Thirtieth Supplemental Indenture (4.50% Senior Notes due 2026) dated November 22, 2016, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed November 29, 2016).
4.14	—	Thirty-First Supplemental Indenture (3.55% Senior Notes due 2029) dated September 16, 2019, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed September 17, 2019).
4.15	—	Thirty-Second Supplemental Indenture (3.80% Senior Notes due 2030) dated June 11, 2020, by and among Plains All American Pipeline, L.P., PAA Finance Corp. and U.S. Bank National Association, as trustee (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed June 11, 2020).
4.16	—	Registration Rights Agreement dated September 3, 2009 by and between Plains All American Pipeline, L.P. and Vulcan Gas Storage LLC (incorporated by reference to Exhibit 4.1 to our Registration Statement on Form S-3, File No. 333-162477).
4.17	—	Registration Rights Agreement dated as of January 28, 2016 among Plains All American Pipeline, L.P. and the Purchasers named therein (incorporated by reference to Exhibit 4.1 to our Current Report on Form 8-K filed February 2, 2016).
4.18	—	Registration Rights Agreement by and among Plains All American Pipeline, L.P. and the Holders defined therein, dated November 15, 2016 (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed November 21, 2016).
4.19†	—	Description of Our Securities.
10.1	—	Credit Agreement dated as of August 19, 2011 among Plains All American Pipeline, L.P., as Borrower; certain subsidiaries of Plains All American Pipeline, L.P. from time to time party thereto, as Designated Borrowers; Bank of America, N.A., as Administrative Agent; and the other Lenders party thereto (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed August 25, 2011).

Exhibit No.		Description
10.2	—	First Amendment to Credit Agreement dated as of June 27, 2012, among Plains All American Pipeline, L.P. and Plains Midstream Canada ULC, as Borrowers; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders party thereto (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed July 3, 2012).
10.3	—	Second Amendment to Credit Agreement dated as of August 16, 2013, among Plains All American Pipeline, L.P. and Plains Midstream Canada ULC, as Borrowers; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders party thereto (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed August 20, 2013).
10.4	—	Third Amendment to Credit Agreement dated as of August 11, 2016, among Plains All American Pipeline, L.P. and Plains Midstream Canada ULC, as Borrowers; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders party thereto (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed August 17, 2016).
10.5	—	Third Amended and Restated Credit Agreement dated as of August 19, 2011 by and among Plains Marketing, L.P., as Borrower, Plains All American Pipeline, L.P., as Guarantor, Bank of America, N.A., as Administrative Agent, and the other Lenders party thereto (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed August 25, 2011).
10.6	—	First Amendment to Third Amended and Restated Credit Agreement dated as of June 27, 2012, among Plains Marketing, L.P. and Plains Midstream Canada ULC, as Borrowers; Plains All American Pipeline, L.P., as Guarantor; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; and the other Lenders and L/C Issuers party thereto (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed July 3, 2012).
10.7	—	Second Amendment to Third Amended and Restated Credit Agreement dated as of August 16, 2013, among Plains Marketing, L.P. and Plains Midstream Canada ULC, as Borrowers; Plains All American Pipeline, L.P., as Guarantor; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders and L/C Issuers party thereto (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed August 20, 2013).
10.8	—	Third Amendment to Third Amended and Restated Credit Agreement dated as of August 11, 2016, among Plains Marketing, L.P. and Plains Midstream Canada ULC, as Borrowers; Plains All American Pipeline, L.P., as Guarantor; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders and L/C Issuers party thereto (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed August 17, 2016).
10.9	—	Fourth Amendment to Third Amended and Restated Credit Agreement dated as of August 16, 2017, among Plains Marketing, L.P. and Plains Midstream Canada ULC, as Borrowers; Plains All American Pipeline, L.P., as Guarantor; Bank of America, N.A., as Administrative Agent, Swing Line Lender and L/C Issuer; Wells Fargo Bank, National Association, as an L/C Issuer; and the other Lenders and L/C Issuers party thereto (incorporated by reference to Exhibit 10.6 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017).

Exhibit No.		Description
10.10	—	Contribution and Assumption Agreement dated December 28, 2007, by and between Plains AAP, L.P. and PAA GP LLC (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed January 4, 2008).
10.11	—	Omnibus Agreement by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC, and Plains All American Pipeline, L.P., dated November 15, 2016 (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed November 21, 2016).
10.12	—	Amended and Restated Administrative Agreement by and among PAA GP Holdings LLC, Plains GP Holdings, L.P., Plains All American GP LLC, Plains AAP, L.P., PAA GP LLC, and Plains All American Pipeline, L.P., dated November 15, 2016 (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed November 21, 2016).
10.13**	—	Amended and Restated Employment Agreement between Plains All American GP LLC and Greg L. Armstrong dated as of June 30, 2001 (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
10.14**	—	First Amendment to Amended and Restated Employment Agreement dated December 4, 2008 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.49 to our Annual Report on Form 10-K for the year ended December 31, 2008).
10.15**	—	Waiver Agreement dated as of December 23, 2010 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.31 to our Annual Report on Form 10-K for the year ended December 31, 2010).
10.16**	—	Waiver Agreement dated October 21, 2013 to the Amended and Restated Employment Agreement dated June 30, 2001 of Greg L. Armstrong (incorporated by reference to Exhibit 10.2 to our Current Report on Form 8-K filed October 25, 2013).
10.17**	—	Second Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.6 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.18**	—	Third Amended and Restated Employment Agreement dated effective January 1, 2020 between Plains All American GP LLC and Greg L. Armstrong (incorporated by reference to Exhibit 10.31 to our Annual Report on Form 10-K for the year ended December 31, 2019.
10.19**	—	Amended and Restated Employment Agreement between Plains All American GP LLC and Harry N. Pefanis dated as of June 30, 2001 (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2001).
10.20**	—	First Amendment to Amended and Restated Employment Agreement dated December 4, 2008 between Plains All American GP LLC and Harry N. Pefanis (incorporated by reference to Exhibit 10.50 to our Annual Report on Form 10-K for the year ended December 31, 2008).
10.21**	—	Amendment No. 2 dated August 15, 2019 to Harry Pefanis Amended and Restated Employment Agreement (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.22**	—	Waiver Agreement dated as of December 23, 2010 between Plains All American GP LLC and Harry N. Pefanis (incorporated by reference to Exhibit 10.32 to our Annual Report on Form 10-K for the year ended December 31, 2010).

Exhibit No.		Description
10.23**	—	Waiver Agreement dated October 21, 2013 to the Amended and Restated Employment Agreement dated June 30, 2001 of Harry N. Pefanis (incorporated by reference to Exhibit 10.3 to our Current Report on Form 8-K filed October 25, 2013).
10.24**	—	Employment Agreement between Plains All American GP LLC and Willie Chiang dated July 10, 2015 (incorporated by reference to Exhibit 10.53 to our Annual Report on Form 10-K for the year ended December 31, 2015).
10.25**	—	Amended and Restated Employment Agreement dated effective October 1, 2018 between Plains All American GP LLC and Willie Chiang (incorporated by reference to Exhibit 10.7 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.26**	—	First Amendment to Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 (Willie Chiang) (incorporated by reference to Exhibit 10.8 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016).
10.27**	—	Second Amendment dated March 22, 2018 to Plains AAP, L.P. Class B Restricted Units Agreement (Willie Chiang) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.28**	—	LTIP Grant Letter dated August 16, 2018 (Willie Chiang) incorporated by reference to Exhibit 10.8 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018).
10.29**	—	Plains All American 2013 Long-Term Incentive Plan (incorporated by reference to Exhibit A to our Definitive Proxy Statement filed on October 3, 2013).
10.30**	—	Plains All American PNG Successor Long-Term Incentive Plan (incorporated by reference to Exhibit 4.4 to our Registration Statement on Form S-8 (333-193139) filed December 31, 2013).
10.31**	—	PAA Natural Gas Storage, L.P. 2010 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.2 to PNG's Current Report on Form 8-K filed May 11, 2010).
10.32**	—	Plains GP Holdings, L.P. Long Term Incentive Plan, (incorporated by reference to Exhibit 10.3 to PAGP's Current Report on Form 8-K filed October 25, 2013).
10.33**	—	Form of Plains AAP, L.P. Class B Restricted Units Agreement (incorporated by reference to Exhibit 10.1 to our Current Report on Form 8-K filed January 4, 2008).
10.34**	—	Form of Amendment to the Plains AAP, L.P. Class B Restricted Units Agreement, dated October 18, 2013 (incorporated by reference to Exhibit 10.4 to our Current Report on Form 8-K filed October 25, 2013).
10.35**	—	Form of Amendment to Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 (incorporated by reference to Exhibit 10.6 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016 filed November 8, 2016).
10.36**	—	Form of First Amendment dated March 22, 2018 to Amended and Restated Plains AAP, L.P. Class B Restricted Units Agreement dated August 25, 2016 (Officers) (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.37**	—	Form of PAA LTIP Grant Letter for Officers (August 2016) (incorporated by reference to Exhibit 10.5 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2016).
10.38**	—	Form of Amendment dated March 22, 2018 to PAA LTIP Grant Letter dated August 25, 2016 (Officers) (incorporated by reference to Exhibit 10.4 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).

Exhibit No.		Description
10.39**	—	Form of PAA LTIP Grant Letter for Officers (March 2018) (incorporated by reference to Exhibit 10.5 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018).
10.40**	—	Form of Director LTIP Grant Letter (February 2017) — Director Grant — Designated Directors and Audit Committee Members (PAA Plan) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.41**	—	Form of Director LTIP Grant Letter (February 2017) — Audit Committee Supplement (PAA Plan) (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.42**	—	Form of Director LTIP Grant Letter (February 2017) — Independent Director Grant (PAA Plan) (incorporated by reference to Exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.43**	—	Form of Director LTIP Grant Letter (February 2017) — Director Grant — Designated Directors and Audit Committee Members (PAGP Plan) (incorporated by reference to Exhibit 10.1 to PAGP's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.44**	—	Form of Director LTIP Grant Letter (February 2017) — Audit Committee Supplement (PAGP Plan) (incorporated by reference to Exhibit 10.2 to PAGP's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.45**	—	Form of Director LTIP Grant Letter (February 2017) — Independent Director Grant (PAGP Plan) (incorporated by reference to Exhibit 10.3 to PAGP's Quarterly Report on Form 10-Q for the quarter ended March 31, 2017).
10.46**	—	Form of Director LTIP Grant Letter (August 2018) (incorporated by reference to Exhibit 10.66 to our Annual Report on Form 10-K for the year ended December 31, 2018).
10.47**	—	Director LTIP Grant Letter (December 2018) (incorporated by reference to Exhibit 10.67 to our Annual Report on Form 10-K for the year ended December 31, 2018).
10.48**	—	Form of LTIP Grant Letter dated August 15, 2019 (Officers) (incorporated by reference to Exhibit 10.2 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.49**	—	Form of LTIP Grant Letter dated August 15, 2019 (Directors) (incorporated by reference to exhibit 10.3 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2019).
10.50**	—	Director LTIP Grant Letter (January 2020) (incorporated by reference to Exhibit 10.72 to our Annual Report on Form 10-K for the year ended December 31, 2019).
10.51**	—	Form of LTIP Grant Letter dated August 13, 2020 (Officers) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2020).
10.52**	—	Form of LTIP Grant Letter dated August 13, 2020 (Directors) (incorporated by reference to Exhibit 10.1 to our Quarterly Report on Form 10-Q for the quarter ended September 30, 2020).
10.53**†	—	Form of Special Retention LTIP Grant Letter dated November 20, 2019.
10.54**†	—	Form of LTIP Grant Letter dated December 21, 2017 (Goebel).
10.55**†	—	Form of LTIP Grant Letter dated May 1, 2018 (Chandler).

Exhibit No.		Description
10.56**†	—	Form of LTIP Grant Letter dated May 1, 2018 (Chandler).
21.1†	—	List of Subsidiaries of Plains All American Pipeline, L.P.
23.1†	—	Consent of PricewaterhouseCoopers LLP.
31.1†	—	Certification of Principal Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
31.2†	—	Certification of Principal Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a).
32.1††	—	Certification of Principal Executive Officer pursuant to 18 U.S.C. 1350.
32.2††	—	Certification of Principal Financial Officer pursuant to 18 U.S.C. 1350.
101.INS†	—	XBRL Instance Document — the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH†	—	Inline XBRL Taxonomy Extension Schema Document
101.CAL†	—	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF†	—	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB†	—	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE†	—	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104†	—	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

† Filed herewith.

†† Furnished herewith.

* Certain schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule will be furnished supplementally to the SEC upon request.

** Management compensatory plan or arrangement.

Item 16. ***Form 10-K Summary***

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

PLAINS ALL AMERICAN PIPELINE, L.P.

By: PAA GP LLC,
its general partner

By: Plains AAP, L.P.,
its sole member

By: PLAINS ALL AMERICAN GP LLC,
its general partner

By: /s/ Willie Chiang
Willie Chiang,
Chief Executive Officer of Plains All American GP LLC (Principal Executive Officer)

February 26, 2021

By: /s/ Al Swanson
Al Swanson,
Executive Vice President and Chief Financial Officer of Plains All American GP LLC (Principal Financial Officer)

February 26, 2021

By: /s/ Chris Herbold
Chris Herbold,
Senior Vice President and Chief Accounting Officer of Plains All American GP LLC (Principal Accounting Officer)

February 26, 2021

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ Willie Chiang Willie Chiang	Chairman of the Board of PAA GP Holdings LLC and Chief Executive Officer of Plains All American GP LLC (Principal Executive Officer)	February 26, 2021
/s/ Harry N. Pefanis Harry N. Pefanis	Director of PAA GP Holdings LLC and President and Chief Commercial Officer of Plains All American GP LLC	February 26, 2021
/s/ Al Swanson Al Swanson	Executive Vice President and Chief Financial Officer of Plains All American GP LLC (Principal Financial Officer)	February 26, 2021
/s/ Chris Herbold Chris Herbold	Senior Vice President and Chief Accounting Officer of Plains All American GP LLC (Principal Accounting Officer)	February 26, 2021
/s/ Greg L. Armstrong Greg L. Armstrong	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Victor Burk Victor Burk	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Kevin McCarthy Kevin McCarthy	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Gary R. Petersen Gary R. Petersen	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Alexandra D. Pruner Alexandra D. Pruner	Director of PAA GP Holdings LLC	February 26, 2021
/s/ John T. Raymond John T. Raymond	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Bobby S. Shackouls Bobby S. Shackouls	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Christopher M. Temple Christopher M. Temple	Director of PAA GP Holdings LLC	February 26, 2021
/s/ Lawrence M. Ziemba Lawrence M. Ziemba	Director of PAA GP Holdings LLC	February 26, 2021

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

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MANAGEMENT'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

Plains All American Pipeline, L.P.'s management is responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Internal control over financial reporting has inherent limitations. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk.

Management has used the framework set forth in the report entitled "Internal Control — Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") to evaluate the effectiveness of the Partnership's internal control over financial reporting. Based on that evaluation, management has concluded that the Partnership's internal control over financial reporting was effective as of December 31, 2020.

The effectiveness of the Partnership's internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which appears on Page F-3.

/s/ Willie Chiang

Willie Chiang
Chief Executive Officer of Plains All American GP LLC
(Principal Executive Officer)

/s/ Al Swanson

Al Swanson
Executive Vice President and Chief Financial Officer of Plains All American GP LLC
(Principal Financial Officer)

February 26, 2021

Report of Independent Registered Public Accounting Firm

To the Board of Directors of PAA GP Holdings LLC and Unitholders of Plains All American Pipeline, L.P.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Plains All American Pipeline, L.P. and its subsidiaries (the "Partnership") as of December 31, 2020 and 2019, and the related consolidated statements of operations, of comprehensive income/(loss), of changes in accumulated other comprehensive income/(loss), of changes in partners' capital and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Partnership's internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Partnership as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Partnership maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control — Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Partnership's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Partnership's consolidated financial statements and on the Partnership's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Partnership in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill Impairment Assessment

As described in Note 8 to the consolidated financial statements, goodwill is tested for impairment at a level of reporting referred to as a reporting unit. A reporting unit is an operating segment or one level below an operating segment for which discrete financial information is available and regularly reviewed by segment management. Management tests goodwill to determine whether an impairment has occurred at least annually (as of June 30) and on an interim basis if it is more likely than not that a reporting unit's fair value is less than its carrying value. During the first quarter of 2020, the Partnership's market capitalization declined significantly driven by macroeconomic and geopolitical conditions that occurred in 2020, including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply, as well as changing market conditions and expected lower crude oil production in certain regions, that resulted in expected decreases in future cash flows for certain assets, which was a triggering event that required management to perform a quantitative impairment test as of March 31, 2020. As a result of this quantitative impairment test as of March 31, 2020, the Partnership recorded an impairment loss of $2,515 million and the consolidated goodwill balance was $0 as of December 31, 2020. In the quantitative test, management compares the fair value of the reporting unit with the respective book values, including goodwill, by using an income approach based on a discounted cash flow model. This approach requires management to make long-term forecasts of future revenues, expenses and other expenditures. Those forecasts require the use of various assumptions and estimates, the most significant of which are net revenues (total revenues less purchases and related costs), operating expenses, general and administrative expenses and the weighted average cost of capital.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Partnership's reporting units is a critical audit matter are (i) the significant judgment by management when developing the fair value measurement of the reporting units; (ii) a high degree of auditor judgment, subjectivity, and effort in performing procedures and evaluating management's significant assumptions relating to the weighted average cost of capital; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment, including controls over the valuation of reporting units. These procedures also included among others (i) testing management's process for developing the fair value estimates; (ii) evaluating the appropriateness of the discounted cash flow models; (iii) testing the completeness and accuracy of underlying data used in the models; and (iv) evaluating the reasonableness of the weighted average cost of capital assumptions used by management. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the discounted cash flow models and evaluating the reasonableness of the weighted average cost of capital assumption.

Impairment Assessment of Certain Pipeline Assets in the Transportation Segment

As described in Note 6 to the consolidated financial statements, the Partnership's consolidated net property, plant and equipment balance was $14,611 million as of December 31, 2020. Management periodically evaluates property and equipment and other long-lived assets for impairment when events or circumstances indicate that the carrying value of these assets may not be recoverable. The carrying value of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the carrying value exceeds the sum of the undiscounted cash flows, an impairment loss equal to the amount by which the carrying value exceeds the fair value of the asset is recognized. The subjective assumptions used to determine the existence of an impairment in carrying value include whether there is an indication of 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. During the year ended December 31, 2020, the macroeconomic and geopolitical conditions, including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply, as well as changing market conditions and expected lower crude oil production in certain regions, resulted in expected decreases in future cash flows for certain assets, which was a triggering event that required management to assess the recoverability of the Partnership's carrying value of such long-lived assets. As a result, management recognized approximately $541 million of non-cash impairment losses of which approximately $415 million was associated with certain pipeline assets in the Transportation segment located in the Central region. The evaluation is highly dependent on management's key assumptions relating to the cash flows, including (i) future commodity volumes, (ii) tariff rates, (iii) future commodity prices, and (iv) estimated fixed and variable costs.

The principal considerations for our determination that performing procedures relating to the impairment assessment of certain pipeline assets included in the Transportation segment is a critical audit matter are (i) the significant judgment by management when developing the fair value measurement of these assets due to the forecasted cash flows; (ii) a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating management's significant assumption related to future commodity volumes; and (iii) the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the impairment assessment of pipeline assets, including controls over management's process to estimate fair value associated with certain pipeline assets included in the Transportation segment located in the Central region. These procedures also included, among others (i) testing management's process for developing the fair value of certain pipeline assets in the Transportation segment located in the Central region; (ii) evaluating the appropriateness of the discounted cash flow models; (iii) testing the completeness and accuracy of underlying data used in the models; and (iv) evaluating the reasonableness of significant assumptions used by management related to future commodity volumes. Evaluating management's assumptions related to future commodity volumes involved evaluating whether the assumptions used by management were reasonable considering (i) the current and past performance of the asset groups; (ii) the consistency with external market and industry data; and (iii) whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in evaluating the appropriateness of the discounted cash flow models.

/s/ PricewaterhouseCoopers LLP

Houston, Texas
February 26, 2021

We have served as the Partnership's auditor since 1998.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(in millions, except unit data)

	December 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 22	$ 45
Restricted cash	38	37
Trade accounts receivable and other receivables, net	2,553	3,614
Inventory	647	604
Other current assets	405	312
Total current assets	3,665	4,612
PROPERTY AND EQUIPMENT	18,585	18,948
Accumulated depreciation	(3,974)	(3,593)
Property and equipment, net	14,611	15,355
OTHER ASSETS		
Investments in unconsolidated entities	3,764	3,683
Goodwill	—	2,540
Linefill and base gas	982	981
Long-term operating lease right-of-use assets, net	378	466
Long-term inventory	130	182
Other long-term assets, net	967	858
Total assets	$24,497	$28,677
LIABILITIES AND PARTNERS' CAPITAL		
CURRENT LIABILITIES		
Trade accounts payable	$ 2,437	$ 3,686
Short-term debt	831	504
Other current liabilities	985	827
Total current liabilities	4,253	5,017
LONG-TERM LIABILITIES		
Senior notes, net	9,071	8,939
Other long-term debt, net	311	248
Long-term operating lease liabilities	317	387
Other long-term liabilities and deferred credits	807	891
Total long-term liabilities	10,506	10,465
COMMITMENTS AND CONTINGENCIES (NOTE 19)		
PARTNERS' CAPITAL		
Series A preferred unitholders (71,090,468 and 71,090,468 units outstanding, respectively)	1,505	1,505
Series B preferred unitholders (800,000 and 800,000 units outstanding, respectively)	787	787
Common unitholders (722,380,416 and 728,028,576 units outstanding, respectively)	7,301	10,770
Total partners' capital excluding noncontrolling interests	9,593	13,062
Noncontrolling interests	145	133
Total partners' capital	9,738	13,195
Total liabilities and partners' capital	$24,497	$28,677

The accompanying notes are an integral part of these consolidated financial statements.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per unit data)

	Year Ended December 31,		
	2020	2019	2018
REVENUES			
Supply and Logistics segment revenues	$22,058	$32,272	$32,819
Transportation segment revenues	610	788	648
Facilities segment revenues	622	609	588
Total revenues	23,290	33,669	34,055
COSTS AND EXPENSES			
Purchases and related costs	20,431	29,452	29,793
Field operating costs	1,076	1,303	1,263
General and administrative expenses	271	297	316
Depreciation and amortization	653	601	520
(Gains)/losses on asset sales and asset impairments, net (Note 6, Note 7)	719	28	(114)
Goodwill impairment losses (Note 8)	2,515	—	—
Total costs and expenses	25,665	31,681	31,778
OPERATING INCOME/(LOSS)	(2,375)	1,988	2,277
OTHER INCOME/(EXPENSE)			
Equity earnings in unconsolidated entities	355	388	375
Gain on/(impairment of) investments in unconsolidated entities, net (Note 9)	(182)	271	200
Interest expense (net of capitalized interest of $24, $34 and $30, respectively)	(436)	(425)	(431)
Other income/(expense), net	39	24	(7)
INCOME/(LOSS) BEFORE TAX	(2,599)	2,246	2,414
Current income tax expense	(51)	(112)	(66)
Deferred income tax (expense)/benefit	70	46	(132)
NET INCOME/(LOSS)	(2,580)	2,180	2,216
Net income attributable to noncontrolling interests	(10)	(9)	—
NET INCOME/(LOSS) ATTRIBUTABLE TO PAA	$ (2,590)	$ 2,171	$ 2,216
NET INCOME/(LOSS) PER COMMON UNIT (NOTE 4):			
Net income/(loss) allocated to common unitholders – Basic	$ (2,790)	$ 1,967	$ 2,009
Basic weighted average common units outstanding	728	727	726
Basic net income/(loss) per common unit	$ (3.83)	$ 2.70	$ 2.77
Net income/(loss) allocated to common unitholders – Diluted	$ (2,790)	$ 2,119	$ 2,164
Diluted weighted average common units outstanding	728	800	799
Diluted net income/(loss) per common unit	$ (3.83)	$ 2.65	$ 2.71

The accompanying notes are an integral part of these consolidated financial statements.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME/(LOSS)
(in millions)

	Year Ended December 31,		
	2020	2019	2018
Net income/(loss)	$(2,580)	$2,180	$2,216
Other comprehensive income/(loss)	15	97	(260)
Comprehensive income/(loss)	(2,565)	2,277	1,956
Comprehensive income attributable to noncontrolling interests	(10)	(9)	—
Comprehensive income/(loss) attributable to PAA	$(2,575)	$2,268	$1,956

The accompanying notes are an integral part of these consolidated financial statements.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME/(LOSS)

(in millions)

	Derivative Instruments	Translation Adjustments	Other	Total
Balance at December 31, 2017	$(223)	$(548)	$ 1	$ (770)
Reclassification adjustments	8	—	—	8
Unrealized gain on hedges	38	—	—	38
Currency translation adjustments	—	(305)	—	(305)
Other	—	—	(1)	(1)
2018 Activity	46	(305)	(1)	(260)
Balance at December 31, 2018	$(177)	$(853)	$—	$(1,030)
Reclassification adjustments	9	—	—	9
Unrealized loss on hedges	(91)	—	—	(91)
Currency translation adjustments	—	179	—	179
2019 Activity	(82)	179	—	97
Balance at December 31, 2019	$(259)	$(674)	$—	$ (933)
Reclassification adjustments	11	—	—	11
Unrealized loss on hedges	(10)	—	—	(10)
Currency translation adjustments	—	17	—	17
Other	—	—	(3)	(3)
2020 Activity	1	17	(3)	15
Balance at December 31, 2020	$(258)	$(657)	$ (3)	$ (918)

The accompanying notes are an integral part of these consolidated financial statements.

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(in millions)

	Year Ended December 31,		
	2020	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES			
Net income/(loss)	$(2,580)	$ 2,180	$ 2,216
Reconciliation of net income/(loss) to net cash provided by operating activities:			
Depreciation and amortization	653	601	520
(Gains)/losses on asset sales and asset impairments, net (Note 6, Note 7)	719	28	(114)
Goodwill impairment losses (Note 8)	2,515	—	—
Equity-indexed compensation expense	15	34	79
Inventory valuation adjustments (Note 5)	233	11	8
Deferred income tax expense/(benefit)	(70)	(46)	132
Settlement of terminated interest rate hedging instruments	(100)	(55)	14
Equity earnings in unconsolidated entities	(355)	(388)	(375)
Distributions on earnings from unconsolidated entities	472	401	422
(Gain on)/impairment of investments in unconsolidated entities, net (Note 9)	182	(271)	(200)
Other	(12)	21	39
Changes in assets and liabilities, net of acquisitions:			
Trade accounts receivable and other	1,432	(1,158)	309
Inventory	(304)	(5)	(75)
Trade accounts payable and other	(1,286)	1,151	(367)
Net cash provided by operating activities	1,514	2,504	2,608
CASH FLOWS FROM INVESTING ACTIVITIES			
Cash paid in connection with acquisitions, net of cash acquired (Note 7)	(310)	(50)	—
Investments in unconsolidated entities (Note 9)	(461)	(524)	(468)
Additions to property, equipment and other	(738)	(1,181)	(1,634)
Proceeds from sales of assets (Note 7)	429	77	1,334
Cash paid for purchases of linefill and base gas	(14)	(74)	(45)
Other investing activities	1	(13)	—
Net cash used in investing activities	(1,093)	(1,765)	(813)
CASH FLOWS FROM FINANCING ACTIVITIES			
Net borrowings/(repayments) under commercial paper program (Note 11)	456	93	(123)
Net borrowings/(repayments) under senior secured hedged inventory facility (Note 11)	(160)	325	(778)
Proceeds from GO Zone term loans (Note 11)	—	—	200
Proceeds from the issuance of senior notes (Note 11)	748	998	—
Repayments of senior notes (Note 11)	(617)	(1,000)	—
Repurchase of common units (Note 12)	(50)	—	—
Distributions paid to Series A preferred unitholders (Note 12)	(149)	(149)	(112)
Distributions paid to Series B preferred unitholders (Note 12)	(49)	(49)	(49)

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS — Continued
(in millions)

	Year Ended December 31,		
	2020	2019	2018
Distributions paid to common unitholders (Note 12)	(655)	(1,004)	(871)
Sale of noncontrolling interest in a subsidiary (Note 12)	—	128	—
Other financing activities	41	(62)	(24)
Net cash used in financing activities	(435)	(720)	(1,757)
Effect of translation adjustment	(8)	(3)	(9)
Net increase/(decrease) in cash and cash equivalents and restricted cash	(22)	16	29
Cash and cash equivalents and restricted cash, beginning of period	82	66	37
Cash and cash equivalents and restricted cash, end of period	$ 60	$ 82	$ 66
Cash paid for:			
Interest, net of amounts capitalized	$ 428	$ 397	$ 400
Income taxes, net of amounts refunded	$ 111	$ 136	$ 21

PLAINS ALL AMERICAN PIPELINE, L.P. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CHANGES IN PARTNERS' CAPITAL
(in millions)

	Limited Partners			Partners' Capital Excluding Noncontrolling Interests	Noncontrolling Interests	Total Partners' Capital
	Preferred Unitholders		Common Unitholders			
	Series A	Series B				
Balance at December 31, 2017	$1,505	$788	$ 8,665	$10,958	$ —	$10,958
Impact of adoption of ASU 2017-05	—	—	113	113	—	113
Balance at January 1, 2018	1,505	788	8,778	11,071	—	11,071
Net income	149	49	2,018	2,216	—	2,216
Distributions (Note 12)	(149)	(49)	(871)	(1,069)	—	(1,069)
Other comprehensive loss	—	—	(260)	(260)	—	(260)
Equity-indexed compensation expense	—	—	56	56	—	56
Other	—	(1)	(11)	(12)	—	(12)
Balance at December 31, 2018	$1,505	$787	$ 9,710	$12,002	$ —	$12,002
Net income	149	49	1,973	2,171	9	2,180
Distributions (Note 12)	(149)	(49)	(1,004)	(1,202)	(6)	(1,208)
Other comprehensive income	—	—	97	97	—	97
Equity-indexed compensation expense	—	—	17	17	—	17
Sale of noncontrolling interest in a subsidiary (Note 12)	—	—	(2)	(2)	130	128
Other	—	—	(21)	(21)	—	(21)
Balance at December 31, 2019	$1,505	$787	$10,770	$13,062	$133	$13,195
Net income/(loss)	149	49	(2,788)	(2,590)	10	(2,580)
Distributions (Note 12)	(149)	(49)	(655)	(853)	(10)	(863)
Other comprehensive income	—	—	15	15	—	15
Equity-indexed compensation expense	—	—	19	19	—	19
Repurchase of common units (Note 12)	—	—	(50)	(50)	—	(50)
Contributions from noncontrolling interests (Note 12)	—	—	—	—	12	12
Other	—	—	(10)	(10)	—	(10)
Balance at December 31, 2020	$1,505	$787	$ 7,301	$ 9,593	$145	$ 9,738

Note 1 — Organization and Basis of Consolidation and Presentation

Organization

Plains All American Pipeline, L.P. ("PAA") is a Delaware limited partnership formed in 1998. Our operations are conducted directly and indirectly through our primary operating subsidiaries. As used in this Form 10-K and unless the context indicates otherwise, the terms "Partnership," "we," "us," "our," "ours" and similar terms refer to PAA and its subsidiaries.

Our business model integrates large-scale supply aggregation capabilities with the ownership and operation of critical midstream infrastructure systems that connect major producing regions to key demand centers and export terminals. As one of the largest midstream service providers in North America, we own an extensive network of pipeline transportation, terminalling, storage and gathering assets in key crude oil and natural gas liquids ("NGL") producing basins (including the Permian Basin) and transportation corridors and at major market hubs in the United States and Canada. Our assets and the services we provide are primarily focused on crude oil, NGL and natural gas. Our business activities are conducted through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 21 for further discussion of our operating segments.

Our non-economic general partner interest is held by PAA GP LLC ("PAA GP"), a Delaware limited liability company, whose sole member is Plains AAP, L.P. ("AAP"), a Delaware limited partnership. In addition to its ownership of PAA GP, as of December 31, 2020, AAP also owned a limited partner interest in us through its ownership of approximately 245.8 million of our common units (approximately 31% of our total outstanding common units and Series A preferred units combined). Plains All American GP LLC ("GP LLC"), a Delaware limited liability company, is AAP's general partner. Plains GP Holdings, L.P. ("PAGP") is the sole and managing member of GP LLC, and, at December 31, 2020, owned an approximate 79% limited partner interest in AAP. PAA GP Holdings LLC ("PAGP GP") is the general partner of PAGP.

As the sole member of GP LLC, PAGP has responsibility for conducting our business and managing our operations; however, the board of directors of PAGP GP has ultimate responsibility for managing the business and affairs of PAGP, AAP and us. GP LLC employs our domestic officers and personnel; our Canadian officers and personnel are employed by our subsidiary, Plains Midstream Canada ULC.

References to the "PAGP Entities" include PAGP GP, PAGP, GP LLC, AAP and PAA GP. References to our "general partner," as the context requires, include any or all of the PAGP Entities. References to the "Plains Entities" include us, our subsidiaries and the PAGP Entities.

Definitions

Additional defined terms are used in the following notes and shall have the meanings indicated below:

AOCI	=	Accumulated other comprehensive income/(loss)
ASC	=	Accounting Standards Codification
ASU	=	Accounting Standards Update
Bcf	=	Billion cubic feet
CAD	=	Canadian dollar
CODM	=	Chief Operating Decision Maker
DERs	=	Distribution equivalent rights
EBITDA	=	Earnings before interest, taxes, depreciation and amortization
EPA	=	United States Environmental Protection Agency
FASB	=	Financial Accounting Standards Board
GAAP	=	Generally accepted accounting principles in the United States
ICE	=	Intercontinental Exchange
ISDA	=	International Swaps and Derivatives Association
LIBOR	=	London Interbank Offered Rate
LTIP	=	Long-term incentive plan
Mcf	=	Thousand cubic feet
MMbls	=	Million barrels
MLP	=	Master limited partnership
NGL	=	Natural gas liquids, including ethane, propane and butane
NYMEX	=	New York Mercantile Exchange
Oxy	=	Occidental Petroleum Corporation or its subsidiaries
SEC	=	United States Securities and Exchange Commission
TWh	=	Terawatt hour
U.S.	=	United States
USD	=	United States dollar
WTI	=	West Texas Intermediate

Basis of Consolidation and Presentation

The accompanying financial statements and related notes present and discuss our consolidated financial position as of December 31, 2020 and 2019, and the consolidated results of our operations, cash flows, changes in partners' capital, comprehensive income and changes in accumulated other comprehensive income/(loss) for the years ended December 31, 2020, 2019 and 2018. All significant intercompany transactions have been eliminated in consolidation, and certain reclassifications have been made to information from previous years to conform to the current presentation.

The accompanying consolidated financial statements include the accounts of PAA and all of its wholly owned subsidiaries and those entities that it controls. Investments in entities over which we have significant influence but not control are accounted for by the equity method. We apply proportionate consolidation for pipelines and other assets in which we own undivided joint interests.

Subsequent events have been evaluated through the financial statements issuance date and have been included in the following footnotes where applicable.

COVID-19

During 2020, the novel coronavirus ("COVID-19") pandemic resulted in a swift and material decline in global crude oil demand, which contributed to an oversupply of crude oil that was exacerbated by increases in production from certain suppliers in the global oil markets. These macroeconomic and industry specific challenges resulted in a number of impairment charges recognized during 2020. See Note 6, Note 8 and Note 9 for further discussion of these impairments.

Many uncertainties remain with respect to COVID-19, including uncertainty regarding the length of time the pandemic will continue, as well as the timing, pace and extent of an economic recovery in the United States, Canada and elsewhere, and how such uncertainties will impact the energy industry and our business. As a result, these matters may affect our estimates and assumptions on amounts reported in the financial statements and accompanying notes in the near term.

Note 2 — Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with GAAP 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. We make significant estimates with respect to (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) property and equipment, depreciation and amortization expense and asset retirement obligations, (vi) impairment assessments of property and equipment and investments in unconsolidated entities and (vii) inventory valuations. Although we believe these estimates are reasonable, actual results could differ from these estimates.

Purchases and Related Costs

Purchases and related costs include (i) the weighted average cost of crude oil, NGL and natural gas sold to customers, (ii) fees incurred for storage and transportation, whether by pipeline, truck or rail and (iii) performance-related bonus costs. These costs are recognized when incurred except in the case of products sold, which are recognized at the time title transfers to our customers. Inventory exchanges under buy/sell transactions are presented net in "Purchases and related costs" in our Consolidated Statements of Operations.

Field Operating Costs and General and Administrative Expenses

Field operating costs consist of various field operating expenses, including payroll, compensation and benefits costs for operations personnel; fuel and power costs (including the impact of gains and losses from derivative related activities); third-party trucking transportation costs for our U.S. crude oil operations; maintenance and integrity management costs; regulatory compliance; environmental remediation; insurance; costs for usage of third-party owned pipeline, rail and storage assets; vehicle leases; and property taxes. General and administrative expenses consist primarily of payroll, compensation and benefits costs; certain information systems and legal costs; office rent; contract and consultant costs; and audit and tax fees.

Foreign Currency Transactions/Translation

Certain of our subsidiaries use the Canadian dollar as their functional currency. Assets and liabilities of subsidiaries with a Canadian dollar functional currency are translated at period-end rates of exchange, and revenues and expenses are translated at average exchange rates prevailing for each month. The resulting translation adjustments are made directly to a separate component of other comprehensive income, which is reflected in Partners' Capital on our Consolidated Balance Sheets.

Certain of our subsidiaries also enter into transactions and have monetary assets and liabilities that are denominated in a currency other than the entities' respective functional currencies. Gains and losses from the revaluation of foreign currency transactions and monetary assets and liabilities are generally included in the Consolidated Statements of Operations. However, gains and losses arising from intercompany foreign currency transactions that are of a long-term investment nature are reported in the same manner as translation adjustments. For the years ended December 31, 2020, 2019 and 2018, the revaluation of foreign currency transactions and monetary assets and liabilities resulted in the recognitions of net gains of $16 million, $1 million and $1 million, respectively, in our Consolidated Statements of Operations.

Cash and Cash Equivalents and Restricted Cash

Cash and cash equivalents consist of all unrestricted demand deposits and funds invested in highly liquid instruments with original maturities of three months or less and typically exceed federally insured limits. We periodically assess the financial condition of the institutions where these funds are held and believe that our credit risk is minimal.

In accordance with our policy, unless they may be covered by funds on deposit, outstanding checks are classified as trade accounts payable rather than negative cash. As of December 31, 2020 and 2019, trade accounts payable included $27 million and $38 million, respectively, of outstanding checks that were reclassified from cash and cash equivalents.

Restricted cash includes cash held by us that is unavailable for general use and is comprised of amounts advanced to us by certain equity method investees related to the construction of fixed assets where we serve as construction manager. The following table presents a reconciliation of cash and cash equivalents and restricted cash reported on our Consolidated Balance Sheets that sum to the total of the amount shown on our Consolidated Statements of Cash Flows (in millions):

	December 31,	
	2020	2019
Cash and cash equivalents	$22	$45
Restricted cash	38	37
Total cash and cash equivalents and restricted cash	$60	$82

Noncontrolling Interests

Noncontrolling interest represents the portion of assets and liabilities in a consolidated subsidiary that is owned by a third party. FASB guidance requires all entities to report noncontrolling interests in subsidiaries as a component of equity in the consolidated financial statements. See Note 12 for additional discussion regarding our noncontrolling interests.

Asset Retirement Obligations

FASB guidance establishes accounting requirements for retirement obligations associated with tangible long-lived assets, including estimates related to (i) the time of the liability recognition, (ii) initial measurement of the liability, (iii) allocation of asset retirement cost to expense, (iv) subsequent measurement of the liability and (v) financial statement disclosures. FASB guidance also requires that the cost for asset retirement should be capitalized as part of the cost of the related long-lived asset and subsequently allocated to expense using a systematic and rational method.

Some of our assets, primarily related to our Transportation and Facilities segments, have contractual or regulatory obligations to perform remediation and, in some instances, dismantlement and removal activities when the assets are abandoned. These obligations include varying levels of activity including disconnecting inactive assets from active assets, cleaning and purging assets, and in some cases, completely removing the assets and returning the land to its original state. These assets have been in existence for many years and with regular maintenance will continue to be in service for many years to come. It is not possible to predict when demand for these transportation or storage services will cease, and we do not believe that such demand will cease for the foreseeable future. Accordingly, we believe the date when these assets will be abandoned is indeterminate. With no reasonably determinable abandonment date, we cannot reasonably estimate the fair value of the associated asset retirement obligations. We will record asset retirement obligations for these assets in the period in which sufficient information becomes available for us to reasonably determine the settlement dates.

A small portion of our contractual or regulatory obligations is related to assets that are inactive or that we plan to take out of service and, although the ultimate timing and costs to settle these obligations are not known with certainty, we have recorded a reasonable estimate of these obligations. The following table presents the change in the liability for asset retirement obligations, substantially all of which is reflected in "Other long-term liabilities and deferred credits" on our Consolidated Balance Sheets as of December 31, 2020, 2019 and 2018 (in millions):

	December 31,		
	2020	2019	2018
Beginning balance	$137	$109	$103
Liabilities incurred	12	3	3
Liabilities settled	(1)	(3)	(3)
Accretion expense	5	5	4
Revisions in estimated cash flows	(18)	23	2
Ending balance	$135	$137	$109

Fair Value Measurements

Financial assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Our assessment of the significance of a particular input to the fair value measurement requires judgment, which affects the placement of assets and liabilities within the fair value hierarchy levels. The determination of the fair values includes not only the credit standing of the counterparties involved and the impact of credit enhancements (such as cash deposits and letters of credit) but also the impact of our nonperformance risk on our liabilities. The fair value of our commodity derivatives, interest rate derivatives and foreign currency derivatives includes adjustments for credit risk. Our credit adjustment methodology uses market observable inputs and requires judgment. There were no changes to any of our valuation techniques during the period. See Note 13 for further discussion.

Other Significant Accounting Policies

See the respective footnotes for our accounting policies regarding (i) revenues and accounts receivable, (ii) net income/(loss) per common unit, (iii) inventory, linefill and base gas and long-term inventory, (iv) property and equipment, (v) acquisitions, (vi) goodwill, (vii) investments in unconsolidated entities, (viii) other long-term assets, net, (ix) income allocation for partners' capital presentation purposes, (x) derivatives and risk management activities, (xi) leases, (xii) income taxes, (xiii) equity-indexed compensation and (xiv) legal and environmental matters.

Recent Accounting Pronouncements

In August 2020, the FASB issued ASU 2020-06, *Debt — Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging — Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity*, which simplifies accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts on an entity's own equity, by eliminating two of the three models that require separate accounting for embedded conversion features and the settlement assessment that entities are required to perform to determine whether a contract qualifies for equity classification. This guidance is effective for interim and annual periods beginning after December 15, 2021, with early adoption permitted. We are currently evaluating the effect that this guidance will have on our financial position, results of operations and cash flows.

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, which provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform. This guidance is effective prospectively upon issuance through December 31, 2022 and may be applied from the beginning of an interim period that includes the issuance date of this ASU. We will apply applicable expedients and exceptions to contract modifications through December 31, 2022.

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, to simplify the accounting for income taxes based on changes suggested by stakeholders as part of the FASB's simplification initiative. This guidance is effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. We will adopt this guidance effective January 1, 2021, and do not anticipate that the adoption will have a material impact on our financial position, results of operations or cash flows.

In April 2019, the FASB issued ASU 2019-04, *Codification Improvements to Topic 326, Financial Instruments — Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, which clarifies certain aspects of accounting for credit losses, hedging activities and financial instruments. We adopted this guidance effective January 1, 2020, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

In October 2018, the FASB issued ASU 2018-17, *Consolidation (Topic 810): Targeted Improvements to Related Party Guidance for Variable Interest Entities*, in response to stakeholder observations that improvements could be made by requiring reporting entities to consider indirect interests held through related parties under common control on a proportional basis rather than as the equivalent of a direct interest in its entirety as currently required in GAAP. This guidance is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. We adopted this guidance effective January 1, 2020, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued ASU 2018-15, *Intangibles — Goodwill and Other — Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (a consensus of the FASB Emerging Issues Task Force)*, to address the accounting for implementation costs of a hosting arrangement that is a service contract and to align the accounting for implementation costs for hosting arrangements, regardless of whether they convey a license to the hosted software. This guidance is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. We adopted this guidance effective January 1, 2020, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

In August 2018, the FASB issued ASU 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework — Changes to the Disclosure Requirements for Fair Value Measurement*, modifying the disclosure requirements on fair value measurements in Topic 820. This guidance is effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted. We adopted this guidance effective January 1, 2020, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* (followed by a series of related accounting standard updates), which amends guidance on the impairment of financial instruments and adds an impairment model (known as the current expected credit loss (or CECL) model) that is based on expected losses rather than incurred losses. This guidance became effective for interim and annual periods beginning after December 15, 2019, with early adoption permitted by one year. We adopted this guidance effective January 1, 2020, and our adoption did not have a material impact on our financial position, results of operations or cash flows.

Note 3 — Revenues and Accounts Receivable

Revenue Recognition

We disaggregate our revenues by segment and type of activity. These categories depict how the nature, amount, timing and uncertainty of revenues and cash flows are affected by economic factors.

Supply and Logistics Segment Revenues from Contracts with Customers. The following table presents our Supply and Logistics segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Year Ended December 31,		
	2020	2019	2018
Supply and Logistics segment revenues from contracts with customers			
Crude oil transactions	$21,202	$30,082	$29,592
NGL and other transactions	1,149	1,884	3,108
Total Supply and Logistics segment revenues from contracts with customers	$22,351	$31,966	$32,700

Revenues from sales of crude oil, NGL and natural gas are recognized at the time title to the product sold transfers to the purchaser, which occurs upon delivery of the product to the purchaser or its designee. Sales of crude oil and NGL consist of outright sales contracts. The consideration received under these contracts is variable based on commodity prices. Inventory exchanges under buy/sell transactions are excluded from Supply and Logistics segment revenues in our Consolidated Statements of Operations. Revenues recognized by our Supply and Logistics segment primarily represent margin based activities.

In addition, we have certain crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. The revenues under these agreements are deferred until all performance obligations associated with the related agreements are completed. The inventory that has been sold under these crude oil sales agreements is reflected in "Other current assets" on our Consolidated Balance Sheet until all of our performance obligations are complete. At that time, the inventory that has been sold is removed from our Consolidated Balance Sheet and recorded as "Purchases and related costs" in our Consolidated Statement of Operations. See "*Contract Balances*" below for further discussion of contract liabilities associated with these agreements. The following table presents amounts in Other current assets and deferred revenue associated with these agreements (in millions):

	December 31,	
	2020	2019
Other current assets	$229	$142
Deferred revenue(1)	$361	$155

(1) Included in "Other current liabilities" on our Consolidated Balance Sheet.

We may also utilize derivatives in connection with the transactions described above. Derivative revenue is not included as a component of revenue from contracts with customers, but is included in other items in revenue. The change in the fair value of derivatives that are not designated or do not qualify for hedge accounting is recognized in revenues each period.

Transportation Segment Revenues from Contracts with Customers. The following table presents our Transportation segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Year Ended December 31,		
	2020	2019	2018
Transportation segment revenues from contracts with customers			
Tariff activities:			
Crude oil pipelines	$1,805	$2,039	$1,724
NGL pipelines	101	99	103
Total tariff activities	1,906	2,138	1,827
Trucking	99	145	149
Total Transportation segment revenues from contracts with customers	$2,005	$2,283	$1,976

Our Transportation segment operations generally consist of fee-based activities associated with transporting crude oil and NGL on pipelines and trucks. Revenues from pipeline tariffs and fees are associated with the transportation of crude oil and NGL at a published tariff. We primarily recognize pipeline tariff and fee revenues over time as services are rendered, based on the volumes transported. As is common in the pipeline transportation industry, our tariffs incorporate a loss allowance factor. We recognize the allowance volumes collected as part of the transaction price and record this non-cash consideration at fair value, measured as of the contract inception date.

Facilities Segment Revenues from Contracts with Customers. The following table presents our Facilities segment revenues from contracts with customers disaggregated by type of activity (in millions):

	Year Ended December 31,		
	2020	2019	2018
Facilities segment revenues from contracts with customers			
Crude oil, NGL and other terminalling and storage	$ 704	$ 697	$ 688
NGL and natural gas processing and fractionation	350	349	364
Rail load / unload	45	76	84
Total Facilities segment revenues from contracts with customers	$1,099	$1,122	$1,136

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. Revenues generated in this segment include (i) fees that are generated when we receive liquids from one connecting source and deliver the applicable product to another connecting carrier, fees from storage capacity agreements and fees associated with natural gas storage related activities (collectively "Crude oil, NGL and other terminalling and storage"), (ii) fees from natural gas and condensate processing services and from NGL fractionation and isomerization services (collectively, "NGL and natural gas processing and fractionation") and (iii) loading and unloading fees at our rail terminals.

We generate revenue through a combination of month-to-month and multi-year agreements and processing arrangements. Storage fees are typically recognized in revenue ratably over the term of the contract regardless of the actual storage capacity utilized as our performance obligation is to make available storage capacity for a period of time. Terminal fees (including throughput and rail fees) are recognized as the liquids enter or exit the terminal and are received from or delivered to the connecting carrier or third-party terminal, as applicable. Fees from NGL fractionation and isomerization services and gas processing services are recognized in the period when the services are performed. Natural gas storage related activities fees are recognized in the period the natural gas moves across our header system. We recognize rail loading and unloading fees when the volumes are delivered or received.

Reconciliation to Total Revenues of Reportable Segments. The following disclosures only include information regarding revenues associated with consolidated entities, and revenues from entities accounted for by the equity method are not included in the disclosures. The following tables present the reconciliation of our revenues from contracts with customers (as described above for each segment) to segment revenues and total revenues as disclosed in our Consolidated Statements of Operations (in millions):

Year Ended December 31, 2020	Transportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	$2,005	$1,099	$22,351	$25,455
Other items in revenues	15	39	(292)	(238)
Total revenues of reportable segments	$2,020	$1,138	$22,059	$25,217
Intersegment revenues				(1,927)
Total revenues				$23,290

Year Ended December 31, 2019	Transportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	$2,283	$1,122	$31,966	$35,371
Other items in revenues	37	49	310	396
Total revenues of reportable segments	$2,320	$1,171	$32,276	$35,767
Intersegment revenues				(2,098)
Total revenues				$33,669

Year Ended December 31, 2018	Transportation	Facilities	Supply and Logistics	Total
Revenues from contracts with customers	$1,976	$1,136	$32,700	$35,812
Other items in revenues	14	25	122	161
Total revenues of reportable segments	$1,990	$1,161	$32,822	$35,973
Intersegment revenues				(1,918)
Total revenues				$34,055

Minimum Volume Commitments. We have certain agreements that require counterparties to transport or throughput a minimum volume over an agreed upon period. 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 as a contract liability 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.

The following table presents counterparty deficiencies associated with contracts with customers and buy/sell arrangements that include minimum volume commitments for which we had remaining performance obligations and the customers still had the ability to meet their obligations (in millions):

Counterparty deficiencies	Financial Statement Classification	December 31, 2020	December 31, 2019
Billed and collected	Liability	$73	$22
Unbilled(1)	N/A	4	20
Total		$77	$42

(1) Amounts were related to deficiencies for which the counterparties had not met their contractual minimum commitments and are not reflected in our Consolidated Financial Statements as we had not yet billed or collected such amounts.

Contract Balances. Our contract balances consist of amounts received associated with services or sales for which we have not yet completed the related performance obligation. The following table presents the changes in the liability balance associated with contracts with customers (in millions):

	Contract Liabilities
Balance at December 31, 2018	$ 338
Amounts recognized as revenue	(227)
Additions(1)	244
Other	(1)
Balance at December 31, 2019	$ 354
Amounts recognized as revenue(1)	(246)
Additions(2)	393
Balance at December 31, 2020	$ 501

(1) Includes approximately $155 million associated with crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. Such amount was recognized as revenue in the first quarter of 2020.

(2) Includes approximately $361 million, as discussed above, associated with crude oil sales agreements that are entered into in conjunction with storage arrangements and future inventory exchanges. Such amount is expected to be recognized as revenue in the first quarter of 2021.

Remaining Performance Obligations. The information below includes the amount of consideration allocated to partially and wholly unsatisfied performance obligations under contracts that exist as of the end of the periods and the timing of revenue recognition of those remaining performance obligations. Certain contracts meet the requirements for the presentation as remaining performance obligations. These arrangements include a fixed minimum level of service, typically a set volume of service, and do not contain any variability other than expected timing within a limited range. The following table presents the amount of consideration associated with remaining performance obligations for the population of contracts with external customers meeting the presentation requirements as of December 31, 2020 (in millions):

	2021	2022	2023	2024	2025	2026 and Thereafter
Pipeline revenues supported by minimum volume commitments and capacity agreements(1)	$174	$166	$170	$142	$125	$455
Storage, terminalling and throughput agreement revenues	340	273	206	173	114	328
Total	$514	$439	$376	$315	$239	$783

(1) Calculated as volumes committed under contracts multiplied by the current applicable tariff rate.

The presentation above does not include (i) expected revenues from legacy shippers not underpinned by minimum volume commitments, including pipelines where there are no or limited alternative pipeline transportation options, (ii) intersegment revenues and (iii) the amount of consideration associated with certain income generating contracts, which include a fixed minimum level of service, that are either not within the scope of ASC 606 or do not meet the requirements for presentation as remaining performance obligations. The following are examples of contracts that are not included in the table above because they are not within the scope of ASC 606 or do not meet the requirements for presentation:

- Minimum volume commitments on certain of our joint venture pipeline systems;
- Acreage dedications;

- Supply and Logistics buy/sell arrangements with future committed volumes;
- All other Supply and Logistics contracts, due to the election of practical expedients related to variable consideration and short-term contracts, as discussed below;
- Transportation and Facilities contracts that are short-term, as discussed below;
- Contracts within the scope of ASC Topic 842, *Leases*; and
- Contracts within the scope of ASC Topic 815, *Derivatives and Hedging*.

We have elected practical expedients to exclude the presentation of remaining performance obligations for variable consideration which relates to wholly unsatisfied performance obligations. Certain contracts do not meet the requirements for presentation of remaining performance obligations due to variability in amount of performance obligation remaining, variability in the timing of recognition or variability in consideration. Acreage dedications do require us to perform future services but do not contain a minimum level of services and are therefore excluded from this presentation. Long-term supply and logistics arrangements contain variable timing, volumes and/or consideration and are excluded from this presentation. The duration of these contracts varies across the periods presented above.

Additionally, we have elected practical expedients to exclude contracts with terms of one year or less, and therefore exclude the presentation of remaining performance obligations for short-term transportation, storage and processing services, supply and logistics arrangements, including the non-cancelable period of evergreen arrangements, and any other types of arrangements with terms of one year or less.

Trade Accounts Receivable and Other Receivables, Net

Our accounts receivable are primarily from purchasers and shippers of crude oil and, to a lesser extent, purchasers of NGL. These purchasers include, but are not limited to, refiners, producers, marketing and trading companies and financial institutions. The majority of our accounts receivable relate to our crude oil supply and logistics activities that can generally be described as high volume and low margin activities, in many cases involving exchanges of crude oil volumes.

During 2020, macroeconomic and geopolitical conditions including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply has caused liquidity issues impacting many energy companies, which in turn has increased the potential credit risks associated with certain counterparties with which we do business. To mitigate credit risk related to our accounts receivable, we utilize a rigorous credit review process. We closely monitor market conditions and perform credit reviews of each customer to make a determination with respect to the amount, if any, of open credit to be extended to any given customer and the form and amount of financial performance assurances we require. Such financial assurances are commonly provided to us in the form of advance cash payments, standby letters of credit, credit insurance or parental guarantees. Additionally, in an effort to mitigate credit risk, a significant portion of our transactions with counterparties are settled on a net-cash basis. For a majority of these net-cash arrangements, we also enter into netting agreements (contractual agreements that allow us to offset receivables and payables with those counterparties against each other on our balance sheet).

Accounts receivable from the sale of crude oil are generally settled with counterparties on the industry settlement date, which is typically in the month following the month in which the title transfers. Otherwise, we generally invoice customers within 30 days of when the products or services were provided and generally require payment within 30 days of the invoice date. We review all outstanding accounts receivable balances on a monthly basis and record our receivables net of expected credit losses. We do not write-off accounts receivable balances until we have exhausted substantially all collection efforts. At December 31, 2020 and 2019, substantially all of our trade accounts receivable were less than 30 days past their scheduled invoice date. Our expected credit losses are immaterial. Although we consider our credit procedures to be adequate to mitigate any significant credit losses, given the sharp decline in demand for crude oil and the drop in prices, the actual amount of current and future credit losses could vary significantly from estimated amounts.

The following is a reconciliation of trade accounts receivable from revenues from contracts with customers to total Trade accounts receivable and other receivables, net as presented on our Consolidated Balance Sheets (in millions):

	December 31,	
	2020	2019
Trade accounts receivable arising from revenues from contracts with customers	$ 2,317	$ 3,381
Other trade accounts receivables and other receivables[1]	2,818	3,576
Impact due to contractual rights of offset with counterparties	(2,582)	(3,343)
Trade accounts receivable and other receivables, net	$ 2,553	$ 3,614

(1) The balance is comprised primarily of accounts receivable associated with buy/sell arrangements that are not within the scope of ASC 606.

Note 4 — Net Income/(Loss) Per Common Unit

After consideration of distributions to preferred unitholders (whether paid in cash or in-kind), basic and diluted net income/(loss) per common unit is determined pursuant to the two-class method as prescribed in FASB guidance. This method is an earnings allocation formula that is used to determine allocations to our limited partners and participating securities according to distributions pertaining to the current period's net income and participation rights in undistributed earnings or distributions in excess of earnings. Under the two-class method, net income is reduced by distributions pertaining to the period, and all remaining earnings or distributions in excess of earnings are then allocated to our common unitholders and participating securities based on their respective rights to share in distributions, regardless of whether those earnings would actually be distributed during a particular period from an economic or practical perspective. Participating securities include equity-indexed compensation plan awards that have vested DERs, which entitle the grantee to a cash payment equal to the cash distribution paid on our outstanding common units.

We calculate basic and diluted net income/(loss) per common unit by dividing net income/(loss) attributable to PAA (after deducting amounts allocated to the preferred unitholders and participating securities) by the basic and diluted weighted average number of common units outstanding during the period.

The diluted weighted average number of common units is computed based on the weighted average number of common units plus the effect of potentially dilutive securities outstanding during the period, which include (i) our Series A preferred units and (ii) our equity-indexed compensation plan awards. See Note 12 for additional information regarding our Series A preferred units. See Note 18 for a complete discussion of our equity-indexed compensation plan awards. When applying the if-converted method prescribed by FASB guidance, the possible conversion of approximately 71 million Series A preferred units, on a weighted-average basis, were excluded from the calculation of diluted net income/(loss) per common unit for the year ended December 31, 2020 as the effect was antidilutive for the period. Our equity-indexed compensation plan awards that contemplate the issuance of common units are considered potentially dilutive unless (i) they become vested only upon the satisfaction of a performance condition and (ii) that performance condition has yet to be satisfied. Equity-indexed compensation plan awards that were deemed to be dilutive during the years ended December 31, 2019 and 2018 were reduced by a hypothetical common unit repurchase based on the remaining unamortized fair value, as prescribed by the treasury stock method in guidance issued by the FASB. For the twelve months ended December 31, 2020, approximately 0.3 million equity-indexed compensation plan awards, on a weighted-average basis, were excluded from the computation of diluted net loss per common unit as the effect was antidilutive.

The following table sets forth the computation of basic and diluted net income/(loss) per common unit (in millions, except per unit data):

	Year Ended December 31,		
	2020	2019	2018
Basic Net Income/(Loss) per Common Unit			
Net income/(loss) attributable to PAA	$(2,590)	$2,171	$2,216
Distributions to Series A preferred unitholders	(149)	(149)	(149)
Distributions to Series B preferred unitholders	(49)	(49)	(49)
Distributions to participating securities	(2)	(3)	(3)
Other	—	(3)	(6)
Net income/(loss) allocated to common unitholders(1)	$(2,790)	$1,967	$2,009
Basic weighted average common units outstanding	728	727	726
Basic net income/(loss) per common unit	$ (3.83)	$ 2.70	$ 2.77
Diluted Net Income/(Loss) per Common Unit			
Net income/(loss) attributable to PAA	$(2,590)	$2,171	$2,216
Distributions to Series A preferred unitholders	(149)	—	—
Distributions to Series B preferred unitholders	(49)	(49)	(49)
Distributions to participating securities	(2)	(3)	(3)
Other	—	—	—
Net income/(loss) allocated to common unitholders(1)	$(2,790)	$2,119	$2,164
Basic weighted average common units outstanding	728	727	726
Effect of dilutive securities:			
Series A preferred units	—	71	71
Equity-indexed compensation plan awards	—	2	2
Diluted weighted average common units outstanding	728	800	799
Diluted net income/(loss) per common unit	$ (3.83)	$ 2.65	$ 2.71

(1) We calculate net income/(loss) allocated to common unitholders based on the distributions (whether paid in cash or in-kind) pertaining to the current period's net income. After adjusting for the appropriate period's distributions, the remaining undistributed earnings or excess distributions over earnings (i.e., undistributed loss), if any, are allocated to the common unitholders and participating securities in accordance with the contractual terms of our partnership agreement in effect for the period and as further prescribed under the two-class method.

Note 5 — Inventory, Linefill and Base Gas and Long-term Inventory

Inventory, including long-term inventory, primarily consists of crude oil and NGL in pipelines, storage facilities and railcars that are 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 make any adjustments necessary to reduce the carrying value to the applicable net realizable value. Any resulting adjustments are a component of "Purchases and related costs" on our accompanying Consolidated Statements of Operations. During the years ended December 31, 2020, 2019 and 2018, we recorded charges of $233 million (of which $40 million was associated with our long-term inventory), $11 million and $8 million, respectively, related to the write down of our crude oil and NGL inventory due to declines in prices. A portion of these inventory valuation adjustments was offset by the recognition of gains on derivative instruments being utilized to hedge future sales of our crude oil and NGL inventory. Such gains were recorded to "Supply and Logistics segment revenues" in our accompanying Consolidated Statements of Operations. See Note 13 for discussion of our derivative and risk management activities.

Linefill and base gas in assets we own are recorded at historical cost and consist of crude oil, NGL and natural gas. We classify as linefill or base gas (i) our proportionate share of barrels used to fill a pipeline that we own such that when an incremental barrel is pumped into or enters a pipeline it forces product out at another location, (ii) barrels that represent the minimum working requirements in tanks and caverns that we own and (iii) natural gas required to maintain the minimum operating pressure of natural gas storage facilities we own.

Linefill and base gas carrying amounts are reviewed for impairment in accordance with FASB guidance with respect to accounting for the impairment or disposal of long-lived assets. Carrying amounts that are not expected to be recoverable through future cash flows are written down to estimated fair value. See Note 6 for further discussion regarding impairment of long-lived assets. During 2020, 2019 and 2018, we did not recognize any material impairments of linefill and base gas.

Minimum working inventory requirements in third-party assets and other working inventory in our assets that are needed for our commercial operations are included within specific inventory pools in inventory (a current asset) in determining the average cost of operating inventory. At the end of each period, we reclassify the inventory not expected to be liquidated within the succeeding twelve months out of "Inventory," at the average cost of the applicable inventory pools, and into "Long-term inventory," which is reflected as a separate line item under "Other assets" on our Consolidated Balance Sheets.

Inventory, linefill and base gas and long-term inventory consisted of the following (barrels and natural gas volumes in thousands and carrying value in millions):

	December 31, 2020				December 31, 2019			
	Volumes	Unit of Measure	Carrying Value	Price/ Unit[(1)]	Volumes	Unit of Measure	Carrying Value	Price/ Unit[(1)]
Inventory								
Crude oil	13,450	barrels	$ 441	$32.79	8,613	barrels	$ 450	$52.25
NGL	12,302	barrels	199	$16.18	7,574	barrels	142	$18.75
Other		N/A	7	N/A	N/A		12	N/A
Inventory subtotal			647				604	
Linefill and base gas								
Crude oil	14,669	barrels	828	$56.45	14,316	barrels	826	$57.70
NGL	1,640	barrels	44	$26.83	1,701	barrels	47	$27.63
Natural gas	25,576	Mcf	110	$ 4.30	24,976	Mcf	108	$ 4.32
Linefill and base gas subtotal			982				981	
Long-term inventory								
Crude oil	2,499	barrels	111	$44.42	2,598	barrels	152	$58.51
NGL	1,185	barrels	19	$16.03	1,707	barrels	30	$17.57
Long-term inventory subtotal			130				182	
Total			$1,759				$1,767	

(1) Price per unit of measure is comprised of a weighted average associated with various grades, qualities and locations. Accordingly, these prices may not coincide with any published benchmarks for such products.

Note 6 — Property and Equipment

In accordance with our capitalization policy, expenditures made to expand the existing operating and/or earnings capacity of our assets are capitalized. We also capitalize certain costs directly related to the construction of such assets, including related internal labor costs, engineering costs and interest costs. For the years ended December 31, 2020, 2019 and 2018, capitalized interest recorded to property and equipment was $8 million, $14 million and $21 million, respectively. In addition, we capitalize interest related to investments in certain unconsolidated entities. See Note 9 for additional information. We also capitalize 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. Repair and maintenance expenditures incurred in order to maintain the day to day operation of our existing assets are expensed as incurred.

Property and equipment, net is stated at cost and consisted of the following (in millions):

	Estimated Useful Lives (Years)	December 31, 2020	December 31, 2019
Pipelines and related facilities[(1)]	10 – 70	$11,112	$11,114
Storage, terminal and rail facilities	10 – 70	6,042	6,134
Trucking equipment and other	2 – 15	524	486
Construction in progress	N/A	272	518
Office property and equipment	2 – 50	293	269
Land and other	N/A	342	427
Property and equipment, gross		18,585	18,948
Accumulated depreciation		(3,974)	(3,593)
Property and equipment, net		$14,611	$15,355

(1) We include rights-of-way, which are intangible assets, in our Pipelines and related facilities amounts within property and equipment.

We calculate our depreciation using the straight-line method, based on estimated useful lives and salvage values of our assets. Depreciation expense for the years ended December 31, 2020, 2019 and 2018 was $563 million, $525 million and $454 million, respectively. See "Impairment of Long-Lived Assets (Held and Used)" below for a discussion of our policy for the recognition of asset impairments.

As of December 31, 2020, 2019 and 2018, we incurred liabilities for construction in progress that had not been paid of $51 million, $120 million and $206 million, respectively.

Impairment of Long-Lived Assets (Held and Used)

Long-lived assets with recorded values that are not expected to be recovered through future cash flows are written down to estimated fair value in accordance with FASB guidance with respect to the accounting for the impairment or disposal of long-lived assets. Under this guidance, a long-lived asset is tested for impairment when events or circumstances indicate that its carrying value may not be recoverable. The carrying value of a long-lived asset is not recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If the carrying value exceeds the sum of the undiscounted cash flows, an impairment loss equal to the amount by which the carrying value exceeds the fair value of the asset is recognized.

We periodically evaluate property and equipment and other long-lived assets for impairment when events or circumstances indicate that the carrying value of these assets may not be recoverable. The evaluation is highly dependent on the underlying assumptions of related cash flows. The subjective assumptions used to determine the existence of an impairment in carrying value include:

- whether there is an indication of 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.

During the year ended December 31, 2020, we recognized approximately $541 million of non-cash impairment losses, reflected in "(Gains)/losses on asset sales and asset impairments, net" on our Consolidated Statement of Operations.

Of our impairment losses, approximately $415 million was associated with certain pipeline assets in our Transportation segment located in the Central region. The macroeconomic and geopolitical conditions that occurred in 2020, including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply, as well as changing market conditions and expected lower crude oil production in certain regions, resulted in expected decreases in future cash flows for certain of our assets, which was a triggering event that required us to assess the recoverability of our carrying value of such long-lived assets. As a result of our impairment review, we wrote off the portion of the carrying amount of these long-lived assets that exceeded their fair value. Our estimated fair values (which we consider a Level 3 measurement in the fair value hierarchy) were based upon a discounted cash flow approach utilizing various assumptions and the application of a discount rate of approximately 14%, which represents our estimate of the cost of capital of a theoretical market participant. Such assumptions included (but were not limited to) (i) future commodity volumes (consistent with historical information and estimates of future drilling and completion activity), (ii) tariff rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs.

The remaining impairment losses were associated with idled or underutilized assets, including certain pipelines in our Transportation segment located in the Western region and other long-lived assets in our Facilities segment, for which it has been determined that it is unlikely that opportunities will exist in the future to recover our investment in these assets. We wrote off substantially all of the carrying value of these assets.

We did not recognize any material impairments during the years ended December 31, 2019 or 2018.

Note 7 — Acquisitions and Divestitures

Acquisitions

In February 2020, we acquired Felix Midstream LLC, now known as FM Gathering LLC ("FM Gathering") from Felix Energy Holdings II, LLC for approximately $300 million, net of working capital and other adjustments. FM Gathering owns and operates a newly constructed crude oil gathering system in the Delaware Basin, with associated crude oil storage and truck offloading capacity, and is supported by a long-term acreage dedication. The assets acquired are included in our Transportation and Supply and Logistics segments. This acquisition was accounted for using the acquisition method of accounting and the determination of the fair value of the assets acquired and liabilities assumed was determined in accordance with the applicable accounting guidance. The assets acquired primarily consisted of property and equipment of $115 million and intangible assets of $187 million. The fair value of the tangible assets is a Level 3 measurement in the fair value hierarchy and was determined using a cost approach. The cost approach was based on costs incurred on similar recent construction projects. The fair value of the intangible assets is also a Level 3 measurement in the fair value hierarchy and was determined by applying a discounted cash flow approach. Such approach utilized discount rates varying from 18% to 19%, based on our estimate of the risk that a theoretical market participant would assign to the respective intangible assets.

During the second quarter of 2019, we acquired a crude oil terminal, including tank bottoms and linefill, in Cushing, Oklahoma for cash consideration of $44 million, which was accounted for as an asset acquisition.

Divestitures

During the year ended December 31, 2020, we received cash proceeds of $451 million, primarily from the sale of:

- certain Los Angeles Basin crude oil terminals previously disclosed in our Facilities segment for proceeds of approximately $200 million, subject to certain adjustments;
- certain NGL terminals previously disclosed in our Facilities segment for proceeds of approximately $163 million (including $22 million related to a multi-year supply agreement related to the sale), subject to certain adjustments; and
- a 10% ownership interest in Saddlehorn Pipeline Company, LLC (“Saddlehorn”) for proceeds of approximately $78 million, including working capital adjustments (see Note 9 for additional information).

We recognized a loss related to these assets sales of $178 million, including non-cash impairments recognized upon classification to assets held for sale, for the year ended December 31, 2020. Such amount is included in “(Gains)/losses on asset sales and asset impairments, net” on our Consolidated Statement of Operations.

During the year ended December 31, 2019, we sold certain non-core assets for total proceeds of $77 million that primarily consisted of a storage terminal in North Dakota, which was previously reported in our Facilities segment. For the year ended December 31, 2019, we recognized a net loss related to these asset sales of $16 million, which is comprised of gains of $31 million and losses of $47 million. Such amounts are included in “(Gains)/losses on asset sales and asset impairments, net” on our Consolidated Statement of Operations.

During the year ended December 31, 2018, we received proceeds from asset sales of $1.334 billion, which primarily consisted of the sale of a 30% interest in BridgeTex Pipeline Company, LLC for proceeds of $868 million, resulting in a gain of $200 million. See Note 9 for additional discussion. The other assets sold during the year ended December 31, 2018 primarily included non-core property and equipment or are associated with the formation of strategic joint ventures and were previously reported in our Facilities and Transportation segments. For the year ended December 31, 2018, we recognized a net gain on sales of assets of $120 million, which is comprised of gains of $146 million and losses of $26 million. Such amounts are included in “(Gains)/losses on asset sales and asset impairments, net” on our Consolidated Statement of Operations.

Note 8 — Goodwill

Goodwill represents the future economic benefits arising from assets acquired in a business combination that are not individually identified and separately recognized.

In accordance with FASB guidance, we test goodwill to determine whether an impairment has occurred at least annually (as of June 30) and on an interim basis if it is more likely than not that a reporting unit's fair value is less than its carrying value. Goodwill is tested for impairment at a level of reporting referred to as a reporting unit. A reporting unit is an operating segment or one level below an operating segment for which discrete financial information is available and regularly reviewed by segment management. Our reporting units are our operating segments. FASB guidance provides for a quantitative approach to testing goodwill for impairment; however, we may first assess certain qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. In the quantitative test, we compare the fair value of the reporting unit with the respective book values, including goodwill, by using an income approach based on a discounted cash flow model. This approach requires us to make long-term forecasts of future revenues, expenses and other expenditures. Those forecasts require the use of various assumptions and estimates, the most significant of which are net revenues (total revenues less purchases and related costs), operating expenses, general and administrative expenses and the weighted average cost of capital. Fair value of the reporting units is determined using significant unobservable inputs, or Level 3 inputs in the fair value hierarchy. When the fair value is greater than book value, then the reporting unit's goodwill is not considered impaired. If the book value is greater than fair value, then goodwill is impaired by the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying value of goodwill.

During the first quarter of 2020, we recorded impairment losses of $2.515 billion related to goodwill. Our market capitalization declined significantly during the first quarter driven by macroeconomic and geopolitical conditions that occurred in 2020, including the collapse of oil prices driven by both the decrease in demand caused by the COVID-19 pandemic and excess supply, as well as changing market conditions and expected lower crude oil production in certain regions, that resulted in expected decreases in future cash flows for certain of our assets, which we concluded was a triggering event that required us to perform a quantitative impairment test as of March 31, 2020, utilizing a discounted cash flow approach. We applied a discount rate of approximately 14% in the determination of the fair value of each of our reporting units, which represents our estimate of the cost of capital of a theoretical market participant as of March 31, 2020. The fair values of the reporting units are Level 3 measurements in the fair value hierarchy and were based on various inputs, as discussed below. The discounted cash flows for each reporting unit were based on six years of projected cash flows and terminal values that we believe would be applied by a theoretical market participant in similar market transactions. The discounted cash flows for the respective reporting units utilized various other assumptions, including, but not limited to (i) volumes (based on historical information and estimates of future drilling and completion activity, as well as expectations of future demand recovery), (ii) tariff and storage rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs. We used a range of cash flows for the discounted cash flow calculations based on differing potential market scenarios, but for each of the reporting units, the ultimate outcome of the impairment test was unchanged by the various points within the range of cash flows. As a result of the impairment test, we concluded that the carrying value of each of our reporting units exceeded their respective fair values, resulting in a goodwill impairment charge for the entire goodwill balance for each reporting unit. Prior to the year ended December 31, 2020, we did not recognize any impairments of goodwill.

Goodwill by segment and changes in goodwill is reflected in the following table (in millions):

	Transportation	Facilities	Supply and Logistics	Total
Balance at December 31, 2018	$ 1,040	$ 978	$ 503	$ 2,521
Foreign currency translation adjustments	12	4	3	19
Balance at December 31, 2019	$ 1,052	$ 982	$ 506	$ 2,540
Acquisitions	2	—	—	2
Goodwill, gross	1,054	982	506	2,542
Impairments	(1,038)	(975)	(502)	(2,515)
Foreign currency translation adjustments	(16)	(7)	(4)	(27)
Accumulated impairment losses	(1,054)	(982)	(506)	(2,542)
Balance at December 31, 2020	$ —	$ —	$ —	$ —

Note 9 — Investments in Unconsolidated Entities

Investments in entities over which we have significant influence but not control are accounted for under the equity method. We do not consolidate any part of the assets or liabilities of our equity investees. Our share of net income or loss is reflected as one line item on our Consolidated Statements of Operations entitled "Equity earnings in unconsolidated entities" and will increase or decrease, as applicable, the carrying value of our investments in unconsolidated entities on our Consolidated Balance Sheets. We evaluate our equity investments for impairment in accordance with FASB guidance with respect to the equity method of accounting for investments in common stock. An impairment of an equity investment results when factors indicate that the investment's fair value is less than its carrying value and the reduction in value is other than temporary in nature.

Our investments in unconsolidated entities consisted of the following (in millions, except percentage data):

Entity[1]	Type of Operation	Ownership Interest at December 31, 2020	Investment Balance December 31, 2020	Investment Balance December 31, 2019
BridgeTex Pipeline Company, LLC ("BridgeTex")	Crude Oil Pipeline	20%	$ 421	$ 431
Cactus II Pipeline LLC ("Cactus II")	Crude Oil Pipeline	65%	752	738
Capline Pipeline Company LLC	Crude Oil Pipeline[2]	54%	514	484
Diamond Pipeline LLC ("Diamond")	Crude Oil Pipeline	50%	480	476
Eagle Ford Pipeline LLC ("Eagle Ford Pipeline")	Crude Oil Pipeline	50%	372	382
Eagle Ford Terminals Corpus Christi LLC ("Eagle Ford Terminals")	Crude Oil Terminal and Dock	50%	122	126
Red Oak Pipeline LLC ("Red Oak")	Crude Oil Pipeline	50%	35	20
Saddlehorn	Crude Oil Pipeline	30%	208	234
STACK Pipeline LLC ("STACK")	Crude Oil Pipeline	50%	22	117
White Cliffs Pipeline, LLC	Crude Oil Pipeline	36%	192	196
Wink to Webster Pipeline LLC ("W2W Pipeline")	Crude Oil Pipeline	16%	330	136
Other investments			316	343
Total Investments in Unconsolidated Entities			$3,764	$3,683

(1) Except for Eagle Ford Terminals, which is reported in our Facilities segment, the financial results from the entities are reported in our Transportation segment.

(2) The Capline pipeline was taken out of service pending the reversal of the pipeline system.

Impairments

During the year ended December 31, 2020, we recognized losses as a result of the write-down of certain of our investments in unconsolidated entities, as discussed further below. Such amounts are reflected in "Gain on/(impairment of) investments in unconsolidated entities, net" on our Consolidated Statement of Operations.

STACK. During the third quarter of 2020, we determined that there was an other-than-temporary impairment of our investment in STACK Pipeline LLC as a result of a continued decline of drilling activity and related volumes of crude oil in its area of operation. We recognized a loss of $91 million related to the write-down of the portion of the carrying amount of our investment that exceeded its fair value. The estimated fair value (which we consider a Level 3 measurement in the fair value hierarchy) was based on a discounted cash flow approach utilizing various assumptions and the application of a discount rate of approximately 14%, which represents our estimate of the cost of capital of a theoretical market participant. Such assumptions included (but were not limited to) (i) volumes (consistent with historical information and estimates of future drilling and completion activity), (ii) tariff rates, (iii) future commodity prices (based on relevant indices and applicable quality and location differentials), and (iv) estimated fixed and variable costs.

Red Oak. In June 2019, we announced the formation of Red Oak, a joint venture with a subsidiary of Phillips 66. We own a 50% interest in Red Oak, which is accounted for under the equity method of accounting. Red Oak was developing a new pipeline that would provide crude oil transportation service from Cushing, Oklahoma, and the Permian Basin in West Texas to multiple destinations along the Texas Gulf Coast, including Corpus Christi, Ingleside, Houston and Beaumont, Texas. In March 2020, the partners of Red Oak announced they were deferring the Red Oak pipeline project and suspending actions that would require additional capital spending on the project, and that they would re-evaluate demand for the project in light of recent market developments. Subsequently, the partners determined that the project would not proceed as previously contemplated. We determined that there was an other-than-temporary impairment of our investment in Red Oak, and we recognized a loss of $69 million related to the write-down of our investment in Red Oak to the estimated residual value of our share of the net assets during the second quarter of 2020.

Other investments. During the first quarter of 2020, we also recognized a loss of $43 million related to the write-down of certain of our investments included in "Other investments" in the table above due to an other-than-temporary impairment related to a decline in market conditions.

Formations

Capline LLC. During the first quarter of 2019, the owners of the Capline pipeline system contributed their undivided joint interests in the system to a newly formed entity, Capline Pipeline Company LLC ("Capline LLC"), in exchange for equity interests in such entity. After the contribution, Capline LLC owns 100% of the pipeline system. Each owner's undivided joint interest in the Capline pipeline system prior to the transaction is equal to each owner's equity interest in Capline LLC. Although we own a majority of Capline LLC's equity, we do not have a controlling financial interest in Capline LLC because the other members have substantive participating rights. Therefore, we account for our ownership interest in Capline LLC as an equity method investment.

Under applicable accounting rules, the transaction resulted in a "loss of control" of our undivided joint interest, which was derecognized and contributed to Capline LLC. The "loss of control" required us to measure our equity interest in Capline LLC at fair value. At the time of the transaction, our 54% undivided joint interest in the Capline pipeline system had a carrying value of $175 million, which primarily related to property and equipment included in our Transportation segment. We determined the fair value of our investment in Capline LLC to be approximately $444 million, resulting in the recognition of a gain of $269 million during the year ended December 31, 2019. Such gain is included in "Gain on/(impairment of) investment in unconsolidated entities, net" on our Consolidated Statement of Operations.

The fair value of our investment in Capline LLC was based on an income approach utilizing a discounted cash flow analysis. The cash flow forecasts require the use of various assumptions and estimates which include those related to the timing and amount of capital expenditures, the expected tariff rates and volumes of crude oil, and the terminal value. We probability-weighted various forecasted cash flow scenarios utilized in the analysis when we considered the possible outcomes. We used a discount rate representing our estimate of the risk adjusted discount rate that would be used by market participants. If shipper interest varies from the levels assumed in our model, the related cash flows, and thus the fair value of our investment, could be materially impacted. The fair value of our investment was determined using significant unobservable inputs, or Level 3 inputs in the fair value hierarchy.

W2W Pipeline. In 2019, we participated in the formation of W2W Pipeline, a joint venture with subsidiaries of ExxonMobil, Lotus Midstream, LLC and three additional entities, in which we own a 16% interest. We account for our interest in W2W Pipeline under the equity method of accounting. W2W Pipeline has entered into an undivided joint-ownership arrangement with a subsidiary of Enterprise Products Partners, L.P. that has acquired 29% of the capacity of the pipeline segment from Midland, Texas to Webster, Texas, and W2W Pipeline now owns 71% of this segment of the pipeline. The pipeline originates in the Permian Basin in West Texas and transports crude oil to multiple destinations in the Houston and Galveston market areas. The pipeline system, which is currently in partial service, will provide approximately 1.5 million barrels per day of crude oil capacity (1.1 million barrels per day, net to the undivided joint ownership interest).

Cushing Connect. During the fourth quarter of 2019, we announced the formation of Cushing Connect Pipeline & Terminal LLC, a joint venture with Holly Energy Partners LP for (i) the development and construction of a new 160,000 barrel per day pipeline that will connect the Cushing, Oklahoma crude oil hub to the Tulsa, Oklahoma refining complex owned by a subsidiary of HollyFrontier Corporation and (ii) the ownership and operation of 1.5 million barrels of crude oil storage in Cushing, Oklahoma (the "JV Terminal"). We contributed the crude oil storage to Cushing Connect and own a 50% interest, which is accounted for under the equity method of accounting. The pipeline is expected to be in service during the first quarter of 2021.

Cactus II. In the second quarter of 2018, a subsidiary of Oxy and another third party each exercised their purchase options for a 20% interest and a 15% interest, respectively, in Cactus II, which owns the Cactus II pipeline system. Although we own a majority of Cactus II's equity, we do not have a controlling financial interest in Cactus II because the other members have substantive participating rights. Therefore, we account for our ownership interest in Cactus II as an equity method investment. Following the exercise of the purchase options, we deconsolidated Cactus II resulting in a reduction of property and equipment of $74 million (which was representative of the costs incurred to date to construct the pipeline and equivalent to fair value), and we received $26 million of cash from Cactus II, which represented the other members' portion of the property and equipment.

In addition, during the second quarter of 2018, we received a $100 million advance cash payment from Cactus II associated with pipeline capacity agreements, which is recorded as long-term deferred revenue within "Other long-term liabilities and deferred credits" on our Consolidated Balance Sheet. Such amount is being recognized in revenue ratably over the life of the contracts.

Divestitures

Saddlehorn. In February 2020, we sold a 10% ownership interest in Saddlehorn for proceeds of approximately $78 million and have retained a 30% ownership interest. We recorded a gain of approximately $21 million related to this sale, which is included in "Gain on/(impairment of) investments in unconsolidated entities, net" on our Condensed Consolidated Statement of Operations. We continue to account for our remaining interest under the equity method of accounting.

BridgeTex. During the third quarter of 2018, we sold a 30% interest in BridgeTex for proceeds of \$868 million, including working capital adjustments, and have retained a 20% interest. We recorded a gain of \$200 million related to this sale, which is included in "Gain on investment in unconsolidated entities" on our Consolidated Statement of Operations. We continue to account for our remaining interest under the equity method of accounting.

Distributions

Distributions received from unconsolidated entities are classified based on the nature of the distribution approach, which looks to the activity that generated the distribution. We consider distributions received from unconsolidated entities as a return on investment in those entities to the extent that the distribution was generated through operating results, and therefore classify these distributions as cash flows from operating activities in our Consolidated Statement of Cash Flows. Other distributions received from unconsolidated entities are considered a return of investment and classified as cash flows from investing activities on the Consolidated Statement of Cash Flows.

Contributions

We generally fund our portion of development, construction or capital investment projects of our equity method investees through capital contributions. Our contributions to these entities increase the carrying value of our investments and are reflected in our Consolidated Statements of Cash Flows as cash used in investing activities. During the years ended December 31, 2020, 2019 and 2018, we made cash contributions of \$445 million, \$504 million and \$459 million, respectively, to certain of our equity method investees. In addition, we capitalized interest of \$16 million, \$20 million and \$9 million during the years ended December 31, 2020, 2019 and 2018, respectively, related to contributions to unconsolidated entities for projects under development and construction. We anticipate that we will make additional contributions in 2021 related to ongoing projects.

Basis Differences

Our investments in unconsolidated entities exceeded our share of the underlying equity in the net assets of such entities by \$170 million and \$349 million at December 31, 2020 and 2019, respectively. Such basis differences are included in the carrying values of our investments on our Consolidated Balance Sheets. The portion of the basis differences attributable to depreciable or amortizable assets is amortized on a straight-line basis over the estimated useful life of the related assets, which reduces "Equity earnings in unconsolidated entities" on our Consolidated Statements of Operations. The portion of the basis differences attributable to goodwill is not amortized. The majority of the basis difference at both December 31, 2020 and 2019 was attributable to goodwill related to our ownership interest in BridgeTex and Capline with the remaining basis difference primarily related to capitalized interest incurred during construction of the assets of our unconsolidated entities. The basis difference at December 31, 2020 was further impacted by impairments as discussed above.

Summarized Financial Information of Unconsolidated Entities

Combined summarized financial information for all of our unconsolidated entities is shown in the tables below (in millions). None of our unconsolidated entities have noncontrolling interests.

	December 31,	
	2020	2019
Current assets	\$ 580	\$ 652
Noncurrent assets	\$8,769	\$7,264
Current liabilities	\$ 343	\$ 298
Noncurrent liabilities	\$ 10	\$ 26

	Year Ended December 31,		
	2020	2019	2018
Revenues	$1,360	$1,469	$1,235
Operating income	$ 828	$ 994	$ 824
Net income	$ 826	$ 995	$ 824

Note 10 — Other Long-Term Assets, Net

Other long-term assets, net of accumulated amortization, consisted of the following (in millions):

		December 31, 2020			December 31, 2019		
	Estimated Useful Lives (Years)	Cost	Accumulated Amortization	Net	Cost	Accumulated Amortization	Net
Customer contracts and relationships[(1)]	3 – 29	$1,291	$(519)	$772	$1,134	$(463)	$671
Property tax abatement	13	23	(20)	3	23	(18)	5
Other agreements	1 – 70	40	(10)	30	42	(11)	31
Intangible assets[(2)]		1,354	(549)	805	1,199	(492)	707
Other		165	(3)	162	152	(1)	151
Other long-term assets, net		$1,519	$(552)	$967	$1,351	$(493)	$858

(1) Amounts for the year ended December 31, 2020 include intangible assets associated with the acquisition of FM Gathering. See Note 7 for additional information.

(2) We include rights-of-way, which are intangible assets, in our pipeline and related facilities amounts within property and equipment. See Note 6 for a discussion of property and equipment.

Intangible assets that have finite lives are tested for impairment when events or circumstances indicate that the carrying value may not be recoverable. We did not recognize any impairments of finite-lived intangible assets during the three years ended December 31, 2020.

Amortization expense for finite-lived intangible assets for the years ended December 31, 2020, 2019 and 2018 was $90 million, $76 million and $66 million, respectively. We estimate that our amortization expense related to finite-lived intangible assets for the next five years will be as follows (in millions):

2021	$87
2022	$86
2023	$82
2024	$80
2025	$77

Note 11 — Debt

Debt consisted of the following (in millions):

	December 31, 2020	December 31, 2019
SHORT-TERM DEBT		
Commercial paper notes, bearing a weighted-average interest rate of 0.7% and 2.2%, respectively(1)	$ 547	$ 93
Senior secured hedged inventory facility, bearing a weighted-average interest rate of 1.2% and 2.7%, respectively(1)	167	325
Other	117	86
Total short-term debt	831	504
LONG-TERM DEBT		
Senior notes:		
5.00% senior notes due February 2021	—	600
3.65% senior notes due June 2022	750	750
2.85% senior notes due January 2023	400	400
3.85% senior notes due October 2023	700	700
3.60% senior notes due November 2024	750	750
4.65% senior notes due October 2025	1,000	1,000
4.50% senior notes due December 2026	750	750
3.55% senior notes due December 2029	1,000	1,000
3.80% senior notes due September 2030	750	—
6.70% senior notes due May 2036	250	250
6.65% senior notes due January 2037	600	600
5.15% senior notes due June 2042(2)	499	500
4.30% senior notes due January 2043(2)	348	350
4.70% senior notes due June 2044(2)	687	700
4.90% senior notes due February 2045(2)	649	650
Unamortized discounts and debt issuance costs	(62)	(61)
Senior notes, net of unamortized discounts and debt issuance costs	9,071	8,939
Other long-term debt:		
GO Zone term loans, net of debt issuance costs of $1 and $1, respectively, bearing a weighted-average interest rate of 1.3% and 2.6%, respectively	199	199
Other	112	49
Total long-term debt	9,382	9,187
Total debt(3)	$10,213	$9,691

(1) We classified these commercial paper notes and credit facility borrowings as short-term as of December 31, 2020 and 2019, as these notes and borrowings were primarily designated as working capital borrowings, were required to be repaid within one year and were primarily for hedged NGL and crude oil inventory and NYMEX and ICE margin deposits.

(2) During the year ended December 31, 2020, we repurchased $17 million of our outstanding senior notes on the open market and recognized a gain of $3 million on these transactions, which is included in "Other income/(expense), net" on our Consolidated Statement of Operations.

(3) Our fixed-rate senior notes had a face value of approximately $9.1 billion and $9.0 billion as of December 31, 2020 and 2019, respectively. We estimated the aggregate fair value of these notes as of December 31, 2020 and 2019 to be approximately $9.9 billion and $9.3 billion, respectively. Our fixed-rate senior notes are traded among institutions, and these trades are routinely published by a reporting service. Our determination of fair value is based on reported trading activity near the end of the reporting period. We estimate that the carrying value of outstanding borrowings under our credit facilities, commercial paper program and GO Zone term loans approximates fair value as interest rates reflect current market rates. The fair value estimates for our senior notes, credit facilities, commercial paper program and GO Zone term loans are based upon observable market data and are classified in Level 2 of the fair value hierarchy.

Commercial Paper Program

We have a commercial paper program under which we may issue (and have outstanding at any time) up to $3.0 billion in the aggregate of privately placed, unsecured commercial paper notes. Such notes are backstopped by our senior unsecured revolving credit facility and our senior secured hedged inventory facility; as such, any borrowings under our commercial paper program reduce the available capacity under these facilities.

Credit Agreements

Senior secured hedged inventory facility. We have a credit agreement that provides for a senior secured hedged inventory facility with a committed borrowing capacity of $1.4 billion, of which $400 million is available for the issuance of letters of credit. Subject to obtaining additional or increased lender commitments, the committed capacity of the facility may be increased to $1.9 billion. Proceeds from the facility are primarily used to finance purchased or stored hedged inventory, including NYMEX and ICE margin deposits. Such obligations under the committed facility are secured by the financed inventory and the associated accounts receivable and are repaid from the proceeds of the sale of the financed inventory. Borrowings accrue interest based, at our election, on certain floating rate indices as defined in the credit agreement, in each case plus a margin based on our credit rating at the applicable time. The agreement also provides for one or more one-year extensions, subject to applicable approval. In August 2019, we amended this agreement to, among other things, extend the maturity date of the facility to August 2022 for each extending lender. The maturity date with respect to each non-extending lender (which represent aggregate commitments of approximately $45 million out of total commitments of $1.4 billion from all lenders) remains August 2021.

Senior unsecured revolving credit facility. We have a credit agreement that provides for a senior unsecured revolving credit facility with a committed borrowing capacity of $1.6 billion. Subject to obtaining additional or increased lender commitments, the committed capacity may be increased to $2.1 billion. The credit agreement also provides for the issuance of letters of credit. Borrowings accrue interest based, at our election, on certain floating rate indices as defined in the credit agreement, in each case plus a margin based on our credit rating at the applicable time. The agreement also provides for one or more one-year extensions, subject to applicable approval. In August 2019, we amended this agreement to, among other things, extend the maturity date of the facility to August 2024 for each extending lender.

GO Zone term loans. In August 2018, we entered into an agreement for two $100 million term loans (the "GO Zone term loans") from the remarketing of our $100 million Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (PAA Natural Gas Storage, L.P. Project), Series 2009 and our $100 million Mississippi Business Finance Corporation Gulf Opportunity Zone Industrial Development Revenue Bonds (PAA Natural Gas Storage, L.P. Project), Series 2010 (collectively, the "GO Bonds"). The GO Zone term loans accrue interest, based on certain floating rate indices, 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.

Senior Notes

Our senior notes are co-issued, jointly and severally, by Plains All American Pipeline, L.P. and a 100%-owned consolidated finance subsidiary (neither of which have independent assets or operations) and are unsecured senior obligations of such entities and rank equally in right of payment with existing and future senior indebtedness of the issuers. We may, at our option, redeem any series of senior notes at any time in whole or from time to time in part, prior to maturity, at the redemption prices described in the indentures governing the senior notes. Our senior notes are not guaranteed by any of our subsidiaries.

Senior Notes Issuances. The table below summarizes our issuances of senior unsecured notes during the three years ended December 31, 2020 (in millions):

Year	Description	Maturity	Face Value	Interest Payment Dates
2020	3.80% Senior Notes issued at 99.794% of face value	September 2030	$ 750	March 15 and September 15
2019	3.55% Senior Notes issued at 99.801% of face value	December 2029	$1,000	June 15 and December 15

Senior Notes Repayments. During the three years ended December 31, 2020, we repaid the following senior unsecured notes in full (in millions):

Year	Description	Repayment Date
2020	$600 million 5.00% Senior Notes due February 2021	November 2020[(1)]
2019	$500 million 2.60% Senior Notes due December 2019	November 2019[(2)]
2019	$500 million 5.75% Senior Notes due January 2020	December 2019[(2)]

(1) We repaid these senior notes with proceeds from our 3.80% senior notes issued in June 2020 and cash on hand.

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

Maturities

The weighted average maturity of our senior notes and GO Zone term loans outstanding at December 31, 2020 was approximately 10 years. The following table presents the aggregate contractually scheduled maturities of such senior notes and GO Zone term loans for the next five years and thereafter. The amounts presented exclude unamortized discounts and debt issuance costs.

Calendar Year	Payment (in millions)
2021	$ —
2022	$ 750
2023	$1,300
2024	$ 750
2025	$1,000
Thereafter	$5,533

Covenants and Compliance

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. Our credit agreements prohibit declaration or payments of distributions on, or purchases or redemptions of, units if any default or event of default is continuing. In addition, the agreements contain various covenants limiting our ability to, among other things:

- grant liens on certain property;
- incur indebtedness, including finance leases;
- sell substantially all of our assets or enter into a merger or consolidation;
- engage in certain transactions with affiliates; and
- enter into certain burdensome agreements.

The credit agreements for our senior unsecured revolving credit facility, senior secured hedged inventory facility and GO Zone term loans treat a change of control as an event of default and also require us to maintain a debt-to-EBITDA coverage ratio that, on a trailing four-quarter basis, will not be greater than 5.00 to 1.00 (or 5.50 to 1.00 on all outstanding debt during an acquisition period (generally, the period consisting of three fiscal quarters following an acquisition greater than $150 million)). For covenant compliance purposes, Consolidated EBITDA may include certain adjustments, including those for material projects and certain non-recurring expenses. Additionally, letters of credit and borrowings to fund hedged inventory and margin requirements are excluded when calculating the debt coverage ratio.

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 contained in our credit agreements, our ability to make distributions of available cash is not restricted. As of December 31, 2020, we were in compliance with the covenants contained in our credit agreements and indentures.

Borrowings and Repayments

Total borrowings under our credit facilities and commercial paper program for the years ended December 31, 2020, 2019 and 2018 were approximately $29.3 billion, $13.3 billion and $45.4 billion, respectively. Total repayments under our credit facilities and commercial paper program were approximately $29.0 billion, $12.9 billion and $46.3 billion for the years ended December 31, 2020, 2019 and 2018, respectively. The variance in total gross borrowings and repayments is impacted by various business and financial factors including, but not limited to, the timing, average term and method of general partnership borrowing activities.

Letters of Credit

In connection with our 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. These letters of credit are issued under our senior unsecured revolving credit facility and our senior secured hedged inventory facility, and our liabilities with respect to these purchase obligations are recorded in accounts payable on our balance sheet in the month the crude oil, NGL or natural gas 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, 2020 and 2019, we had outstanding letters of credit of $129 million and $157 million, respectively.

Debt Issuance Costs

Costs incurred in connection with the issuance of senior notes are recorded as a direct deduction from the related debt liability and are amortized using the straight-line method over the term of the related debt. Use of the straight-line method does not differ materially from the "effective interest" method of amortization.

Note 12 — Partners' Capital and Distributions

Units Outstanding

At December 31, 2020, partners' capital consisted of outstanding common units and Series A and Series B preferred units, which represent limited partner interests in us, which give the holders thereof the right to participate in distributions and to exercise the other rights or privileges as outlined in our partnership agreement. Our general partner has a non-economic interest in us.

Series A Preferred Units

Our Series A preferred units were issued in a private placement in 2016 at a price of $26.25 per unit (the "Issue Price"). The Series A preferred units represent limited partner interests in us, rank pari passu with our Series B preferred units, and senior to our common units and to each other class or series of our equity securities with respect to distribution rights and rights upon liquidation. The holders of the Series A preferred units receive cumulative quarterly distributions, subject to customary antidilution adjustments, equal to $0.525 per unit ($2.10 per unit annualized).

The holders may convert their Series A preferred units into common units, generally on a one-for-one basis and subject to customary anti-dilution adjustments, at any time, in whole or in part, subject to certain minimum conversion amounts (and not more often than once per quarter). We may convert the Series A preferred units into common units at any time (but not more often than once per quarter), in whole or in part, subject to certain minimum conversion amounts, if the closing price of our common units is greater than 150% of the Issue Price for the preceding 20 trading days. The Series A preferred units vote on an as-converted basis with our common units and have certain other class voting rights with respect to any amendment to our partnership agreement that would adversely affect any rights, preferences or privileges of the Series A preferred units. In addition, upon certain events involving a change of control, the holders of the Series A preferred units may elect, among other potential elections, to convert the Series A preferred units into common units at the then applicable conversion rate.

For a period of 30 days following (a) the fifth anniversary of the January 28, 2016 issuance date (the "Issuance Date") of the Series A preferred units and (b) each subsequent anniversary of the Issuance Date, the holders of the Series A preferred units, acting by majority vote, may make a one-time election to reset the Series A preferred unit distribution rate to equal the then applicable rate of ten-year U.S. Treasury Securities plus 5.85% (the "Preferred Distribution Rate Reset Option"). The Preferred Distribution Rate Reset Option is accounted for as an embedded derivative. See Note 13 for additional information. If the holders of the Series A preferred units have exercised the Preferred Distribution Rate Reset Option, then, at any time following 30 days after the sixth anniversary of the Issuance Date, we may redeem all or any portion of the outstanding Series A preferred units in exchange for cash, common units (valued at 95% of the volume-weighted average price of our common units for a trading day period specified in our partnership agreement) or a combination of cash and common units at a redemption price equal to 110% of the Issue Price, plus any accrued and unpaid distributions.

Series B Preferred Units

Our Series B Fixed-to-Floating Rate Cumulative Redeemable Perpetual Preferred Units representing limited partner interests in us (the "Series B preferred units") were issued in 2017 at a price to the public of $1,000 per unit. Our Series B preferred units represent perpetual equity interests in us, and they have no stated maturity or mandatory redemption date and are not redeemable at the option of the holders under any circumstances. Holders of the Series B preferred units generally have no voting rights, except for limited voting rights with respect to (i) potential amendments to our partnership agreement that would have a material adverse effect on the existing preferences, rights, powers or duties of the Series B preferred units, (ii) the creation or issuance of any parity securities if the cumulative distributions payable on then outstanding Series B preferred units are in arrears, (iii) the creation or issuance of any senior securities and (iv) the payment of distributions to our common unitholders out of capital surplus. The Series B preferred units rank, as to the payment of distributions and amounts payable on a liquidation event, pari passu with our outstanding Series A preferred units and senior to our common units.

The Series B preferred units have a liquidation preference of $1,000 per unit. 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 semiannual or quarterly cash distributions, as applicable. Distributions on the Series B preferred units accrue and are cumulative from October 10, 2017, the date of original issue, and are payable semiannually in arrears on the 15th day of May and November through and including November 15, 2022, and after November 15, 2022, quarterly in arrears on the 15th day of February, May, August and November of each year. The initial distribution rate for the Series B preferred units from and including October 10, 2017 to, but not including, November 15, 2022 is 6.125% per year of the liquidation preference per unit (equal to $61.25 per unit per year). On and after November 15, 2022, distributions on the Series B preferred units will accumulate for each distribution period at a percentage of the liquidation preference equal to the Series B Three-Month LIBOR (as defined in and calculated pursuant to our Seventh Amended and Restated Agreement of Limited Partnership) plus a spread of 4.11%.

Upon the occurrence of certain rating agency events, we may redeem the Series B preferred units, in whole but not in part, at a price of $1,020 (102% of the liquidation preference) per Series B preferred unit plus an amount equal to all accumulated and unpaid distributions thereon to, but not including, the date of redemption, whether or not declared. In addition, at any time on or after November 15, 2022, we may redeem the Series B preferred units, at our option, in whole or in part, at a redemption price of $1,000 per Series B preferred unit plus an amount equal to all accumulated and unpaid distributions thereon to, but not including, the date of redemption, whether or not declared.

The following table presents the activity for our preferred and common units:

	Limited Partners		
	Series A Preferred Units	Series B Preferred Units	Common Units
Outstanding at December 31, 2017	69,696,542	800,000	725,189,138
Issuances of Series A preferred units in connection with in-kind distributions	1,393,926	—	—
Issuances of common units under equity-indexed compensation plans	—	—	1,172,786
Outstanding at December 31, 2018	71,090,468	800,000	726,361,924

	Limited Partners		
	Series A Preferred Units	Series B Preferred Units	Common Units
Issuances of common units under equity-indexed compensation plans	—	—	1,666,652
Outstanding at December 31, 2019	71,090,468	800,000	728,028,576
Repurchase and cancellation of common units under the Common Equity Repurchase Program	—	—	(6,222,748)
Issuances of common units under equity-indexed compensation plans	—	—	574,588
Outstanding at December 31, 2020	71,090,468	800,000	722,380,416

Common Equity Repurchase Program. In November 2020, the board of directors of PAGP GP approved a $500 million common equity repurchase program (the "Program") to be utilized as an additional method of returning capital to investors. The Program authorizes the repurchase from time to time of up to $500 million of our common units and/or PAGP Class A shares via open market purchases or negotiated transactions conducted in accordance with applicable regulatory requirements. No time limit has been set for completion of the Program, and the Program may be suspended or discontinued at any time. The Program does not obligate us or PAGP to acquire a particular number of common units or PAGP Class A shares. Any common units or PAGP Class A shares that are repurchased will be canceled. PAGP Class C shares held by us associated with any publicly held common units that are repurchased will also be canceled. See Note 17 for additional information regarding our ownership of PAGP Class C shares.

We repurchased 6,222,748 common units under the Program through open market purchases during the year ended December 31, 2020. The total purchase price of these repurchases was $50 million, including commissions and fees. The repurchased common units were canceled immediately upon acquisition, as were the Class C shares held by us associated with the repurchased common units. At December 31, 2020, the remaining available capacity under the program was $450 million.

Distributions

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

Preferred Unit Distributions

The following table details distributions paid to our preferred unitholders during the year presented (in millions, except unit data):

	Series A Preferred Unitholders		Series B Preferred Unitholders
	Distribution[1]		
Year	Cash	Units	Cash Distribution
2020	$149	—	$49
2019	$149	—	$49
2018	$112	1,393,926	$49

(1) We elected to pay distributions on our Series A preferred units in additional Series A preferred units

for each quarterly distribution from their issuance through the February 2018 distribution. Distributions on our Series A preferred units have been paid in cash since the May 2018 distribution. During 2018, we issued additional Series A preferred units in lieu of cash distributions of $37 million.

On February 12, 2021, we paid a cash distribution of $37 million to our Series A preferred unitholders. At December 31, 2020, such amount was accrued as distributions payable in "Other current liabilities" on our Consolidated Balance Sheet. At December 31, 2020, approximately $6 million of accrued distributions payable to our Series B preferred unitholders was included in "Other current liabilities" on our Consolidated Balance Sheet.

Common Unit Distributions

The following table details distributions paid to common unitholders during the year presented (in millions, except per unit data):

Year	Distributions Paid			Distributions per common unit
	Public	AAP	Total	
2020	$432	$223	$ 655	$0.90
2019	$632	$372	$1,004	$1.38
2018	$532	$339	$ 871	$1.20

On January 7, 2021, we declared a cash distribution of $0.18 per unit on our outstanding common units. The total distribution of $130 million was paid on February 12, 2021 to unitholders of record at the close of business on January 29, 2021, for the period from October 1, 2020 through December 31, 2020. Of this amount, approximately $44 million was paid to AAP.

Income Allocation

We allocate net income for partners' capital presentation purposes by applying the allocation methodology in our partnership agreement. Net income is allocated 100% to our common unitholders, after giving effect to income allocations for cash distributions to our Series A preferred unitholders and guaranteed payments attributable to our Series B preferred unitholders. In accordance with our partnership agreement, our Series A preferred unitholders are not allocated income for paid-in-kind distributions for partners' capital presentation purposes.

For purposes of determining basic and diluted net income per common unit, income is allocated as prescribed in FASB guidance for calculating earnings per unit, including a deduction to income available to common unitholders for distributions attributable to the period (whether paid in cash or in-kind) on our Series A and Series B preferred units. See Note 4 for additional information.

Noncontrolling Interests in Subsidiaries

In May 2019, we formed a joint venture, Red River Pipeline Company LLC ("Red River LLC"), with Delek Logistics Partners, LP ("Delek") on our Red River pipeline system. We received approximately $128 million for Delek's 33% interest in Red River LLC. We consolidate Red River LLC based on control, with Delek's 33% interest accounted for as a noncontrolling interest.

During the year ended December 31, 2020, we received $12 million of contributions from noncontrolling interests in Red River LLC related to the Red River pipeline capacity expansion and paid distributions of $10 million. During the year ended December 31, 2019, we paid distributions of $6 million to noncontrolling interests in Red River LLC.

Note 13 — Derivatives and Risk Management Activities

We identify the risks that underlie our core business activities and use risk management strategies to mitigate those risks when we determine that there is value in doing so. We use various derivative instruments to optimize our profits while managing our exposure to (i) hydrocarbon commodity (referred to herein as "commodity") price risk, (ii) interest rate risk and (iii) currency exchange rate risk. Our commodity price risk management policies and procedures are designed to help ensure that our hedging activities address our risks by monitoring our derivative positions, as well as physical volumes, grades, locations, delivery schedules and storage capacity. Our interest rate and currency exchange rate risk management policies and procedures are designed to monitor our derivative positions and ensure that those positions are consistent with our objectives and approved strategies. Our policy is to use derivative instruments for risk management purposes and not for the purpose of speculating on changes in commodity prices, interest rates or currency exchange rates. When we apply hedge accounting, our policy is to formally document all relationships between hedging instruments and hedged items, as well as our risk management objectives for undertaking the hedge. This process includes specific identification of the hedging instrument and the hedged transaction, the nature of the risk being hedged and how the hedging instrument's effectiveness will be assessed. At the inception of the hedging relationship, we assess whether the derivatives employed are highly effective in offsetting changes in cash flows of anticipated hedged transactions. Throughout the hedging relationship, retrospective and prospective hedge effectiveness is assessed on a qualitative basis.

We record all open derivatives on the balance sheet as either assets or liabilities measured at fair value. Changes in the fair value of derivatives are recognized currently in earnings unless specific hedge accounting criteria are met. For derivatives designated as cash flow hedges, changes in fair value are deferred in AOCI and recognized in earnings in the periods during which the underlying hedged transactions are recognized in earnings. Derivatives that are not designated as a hedging instrument and derivatives that do not qualify for hedge accounting are recognized in earnings each period. Cash settlements associated with our derivative activities are classified within the same category as the related hedged item in our Condensed Consolidated Statements of Cash Flows.

Our financial derivatives, used for hedging risk, are governed through ISDA master agreements and clearing brokerage agreements. These agreements include stipulations regarding the right of set off in the event that we or our counterparty default on performance obligations. If a default were to occur, both parties have the right to net amounts payable and receivable into a single net settlement between parties.

At December 31, 2020 and 2019, none of our outstanding derivatives contained credit-risk related contingent features that would result in a material adverse impact to us upon any change in our credit ratings. Although we may be required to post margin on our exchange-traded derivatives transacted through a clearing brokerage account, as described below, we do not require our non-cleared derivative counterparties to post collateral with us.

Commodity Price Risk Hedging

Our core business activities involve certain commodity price-related risks that we manage in various ways, including through the use of derivative instruments. Our policy is to (i) only purchase inventory for which we have a sales market, (ii) structure our sales contracts so that price fluctuations do not materially affect our operating income and (iii) not acquire and hold physical inventory or derivatives for the purpose of speculating on commodity price changes. The material commodity-related risks inherent in our business activities can be divided into the following general categories:

Commodity Purchases and Sales — In the normal course of our operations, we purchase and sell commodities. We use derivatives to manage the associated risks and to optimize profits. As of December 31, 2020, net derivative positions related to these activities included:

- A net long position of 5.8 million barrels associated with our crude oil purchases, which was unwound ratably during January 2021 to match monthly average pricing.

- A net short time spread position of 6.6 million barrels, which hedges a portion of our anticipated crude oil lease gathering purchases through March 2022.
- A net crude oil basis spread position of 0.6 million barrels at multiple locations through December 2021. These derivatives allow us to lock in grade basis differentials.
- A net short position of 37.4 million barrels through December 2022 related to anticipated net sales of crude oil and NGL inventory.

Natural Gas Processing/NGL Fractionation — We purchase natural gas for processing and operational needs. Additionally, we purchase NGL mix for fractionation and sell the resulting individual specification products (including ethane, propane, butane and condensate). In conjunction with these activities, we hedge the price risk associated with the purchase of the natural gas and the subsequent sale of the individual specification products. The following table summarizes our open derivative positions utilized to hedge the price risk associated with anticipated purchases and sales related to our natural gas processing and NGL fractionation activities as of December 31, 2020.

	Notional Volume (Short)/Long	Remaining Tenor
Natural gas purchases	37.3 Bcf	December 2021
Propane sales	(6.3) MMbls	December 2021
Butane sales	(2.3) MMbls	December 2021
Condensate sales (WTI position)	(0.6) MMbls	December 2021
Fuel gas requirements[1]	14.3 Bcf	December 2022
Power supply requirements[1]	0.7 TWh	December 2022

(1) Positions to hedge a portion of our power supply and fuel gas requirements at our Canadian natural gas processing and fractionation plants.

Physical commodity contracts that meet the definition of a derivative but are ineligible, or not designated, for the normal purchases and normal sales scope exception are recorded on the balance sheet at fair value, with changes in fair value recognized in earnings. We have determined that substantially all of our physical commodity contracts qualify for the normal purchases and normal sales scope exception.

Our commodity derivatives are not designated as a hedging relationship, as such, changes in the fair value are reported in earnings. A summary of the impact of our commodity derivatives recognized in earnings as follows (in millions):

	Year Ended December 31,		
	2020	2019	2018
Supply and Logistics segment revenues	$(302)	$310	$150
Field operating costs	5	14	(2)
Net gain/(loss) from commodity derivative activity	$(297)	$324	$148

Our accounting policy is to offset derivative assets and liabilities executed with the same counterparty when a master netting arrangement exists. Accordingly, we also offset derivative assets and liabilities with amounts associated with cash margin. Our exchange-traded derivatives are transacted through clearing brokerage accounts and are subject to margin requirements as established by the respective exchange. On a daily basis, our account equity (consisting of the sum of our cash balance and the fair value of our open derivatives) is compared to our initial margin requirement resulting in the payment or return of variation margin. The following table provides the components of our net broker receivable/(payable) (in millions):

	December 31, 2020	December 31, 2019
Initial margin	$ 91	$ 73
Variation margin posted/(returned)	290	(45)
Letters of credit	(63)	(73)
Net broker receivable/(payable)	$318	$(45)

The following table reflects the Consolidated Balance Sheet line items that include the fair values of our commodity derivative assets and liabilities and the effect of the collateral netting. Such amounts are presented on a gross basis, before the effects of counterparty netting. However, we have elected to present our commodity derivative assets and liabilities with the same counterparty on a net basis on our Consolidated Balance Sheet when the legal right of offset exists. Amounts in the table below are presented in millions.

	December 31, 2020				December 31, 2019			
	Commodity Derivatives		Effect of Collateral Netting	Net Carrying Value Presented on the Balance Sheet	Commodity Derivatives		Effect of Collateral Netting	Net Carrying Value Presented on the Balance Sheet
	Assets	Liabilities			Assets	Liabilities		
Derivative Assets								
Other current assets	$71	$(314)	$318	$ 75	$179	$ (37)	$(45)	$ 97
Other long-term assets, net	5	—	—	5	24	—	—	24
Derivative Liabilities								
Other current liabilities	9	(40)	—	(31)	32	(56)	—	(24)
Other long-term liabilities and deferred credits	—	(32)	—	(32)	—	(12)	—	(12)
Total	$85	$(386)	$318	$ 17	$235	$(105)	$(45)	$ 85

Interest Rate Risk Hedging

We use interest rate derivatives to hedge the benchmark interest rate associated with interest payments occurring as a result of debt issuances. The derivative instruments we use to manage this risk consist of forward starting interest rate swaps and treasury locks. These derivatives are designated as cash flow hedges. As such, changes in fair value are deferred in AOCI and are reclassified to interest expense as we incur the interest expense associated with the underlying debt.

The following table summarizes the terms of our outstanding interest rate derivatives as of December 31, 2020 (notional amounts in millions):

Hedged Transaction	Number and Types of Derivatives Employed	Notional Amount	Expected Termination Date	Average Rate Locked	Accounting Treatment
Anticipated interest payments	8 forward starting swaps (30-year)	$200	6/15/2023	1.38%	Cash flow hedge
Anticipated interest payments	8 forward starting swaps (30-year)	$200	6/14/2024	0.73%	Cash flow hedge

As of December 31, 2020, there was a net loss of $258 million deferred in AOCI. The deferred net loss recorded in AOCI is expected to be reclassified to future earnings contemporaneously with (i) the earnings recognition of the underlying hedged commodity transactions or (ii) interest expense accruals associated with underlying debt instruments. We reclassified losses of $11 million, $9 million and $5 million during years ended December 31, 2020, 2019 and 2018, respectively. Of the total net loss deferred in AOCI at December 31, 2020, we expect to reclassify a loss of $13 million to earnings in the next twelve months. We estimate that substantially all of the remaining deferred loss will be reclassified to earnings through 2054 as the underlying hedged transactions impact earnings. A portion of these amounts is based on market prices as of December 31, 2020; thus, actual amounts to be reclassified will differ and could vary materially as a result of changes in market conditions.

The following table summarizes the net unrealized gain/(loss) recognized in AOCI for derivatives (in millions):

	Year Ended December 31,		
	2020	2019	2018
Interest rate derivatives, net	$(10)	$(91)	$38

At December 31, 2020, the net fair value of our interest rate hedges, which were included in “Other long-term assets” on our Consolidated Balance Sheet, totaled $46 million. At December 31, 2019, the fair value of these hedges was $44 million and included in “Other current liabilities.”

Currency Exchange Rate Risk Hedging

Because a significant portion of our Canadian business is conducted in CAD we use foreign currency derivatives to minimize the risk of unfavorable changes in exchange rates. These instruments include foreign currency exchange contracts, forwards and options.

Our use of foreign currency derivatives include (i) derivatives we use to hedge currency exchange risk created by the use of USD-denominated commodity derivatives to hedge commodity price risk associated with CAD-denominated commodity purchases and sales and (ii) foreign currency exchange contracts we use to manage our Canadian business cash requirements.

The following table summarizes our open forward exchange contracts as of December 31, 2020 (in millions):

		USD	CAD	Average Exchange Rate USD to CAD
Forward exchange contracts that exchange CAD for USD:				
	2021	$46	$ 59	$1.00 – $1.28
Forward exchange contracts that exchange USD for CAD:				
	2021	$80	$104	$1.00 – $1.30

These derivatives are not designated as a hedging relationship. As such, changes in fair value are recognized in earnings as a component of Supply and Logistics segment revenues. For the years ended December 31, 2020, 2019 and 2018, the amounts recognized in earnings for our currency exchange rate hedges were a gain of less than $1 million, a gain of $8 million and a loss of $23 million, respectively.

At December 31, 2020, the net fair value of these currency exchange rate hedges, which is included in “Other current assets” on our Consolidated Balance Sheet, totaled $2 million. At December 31, 2019, the net fair value of these currency exchange rate hedges, which was included in “Other current assets” and “Other current liabilities” on our Condensed Consolidated Balance Sheet, totaled $2 million and $1 million, respectively.

Preferred Distribution Rate Reset Option

A derivative feature embedded in a contract that does not meet the definition of a derivative in its entirety must be bifurcated and accounted for separately if the economic characteristics and risks of the embedded derivative are not clearly and closely related to those of the host contract. 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 on our

Consolidated Balance Sheets. This embedded derivative is not designated as a hedging relationship and corresponding changes in fair value are recognized in “Other income/(expense), net” in our Consolidated Statement of Operations. For the years ended December 31, 2020, 2019 and 2018 we recognized net gains of $20 million, $2 million and a net loss of $14 million, respectively. The fair value of the Preferred Distribution Rate Reset Option, which was included in “Other long-term liabilities and deferred credits” on our Consolidated Balance Sheets, totaled $14 million and $34 million at December 31, 2020 and 2019, respectively. See Note 12 for additional information regarding our Series A preferred units and the Preferred Distribution Rate Reset Option.

Recurring Fair Value Measurements

Derivative Financial Assets and Liabilities

The following table sets forth by level within the fair value hierarchy our financial assets and liabilities that were accounted for at fair value on a recurring basis (in millions):

	Fair Value as of December 31, 2020				Fair Value as of December 31, 2019			
Recurring Fair Value Measures[1]	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Commodity derivatives	$(143)	$(143)	$(15)	$(301)	$42	$105	$(17)	$130
Interest rate derivatives	—	46	—	46	—	(44)	—	(44)
Foreign currency derivatives	—	2	—	2	—	1	—	1
Preferred Distribution Rate Reset Option	—	—	(14)	(14)	—	—	(34)	(34)
Total net derivative asset/(liability)	$(143)	$ (95)	$(29)	$(267)	$42	$ 62	$(51)	$ 53

(1) Derivative assets and liabilities are presented above on a net basis but do not include related cash margin deposits.

Level 1

Level 1 of the fair value hierarchy includes exchange-traded commodity derivatives and over-the-counter commodity contracts such as futures and swaps. The fair value of exchange-traded commodity derivatives and over-the-counter commodity contracts is based on unadjusted quoted prices in active markets.

Level 2

Level 2 of the fair value hierarchy includes exchange-cleared commodity derivatives and over-the-counter commodity, interest rate and foreign currency derivatives that are traded in observable markets with less volume and transaction frequency than active markets. In addition, it includes certain physical commodity contracts. The fair values of these derivatives are corroborated with market observable inputs.

Level 3

Level 3 of the fair value hierarchy includes certain physical commodity and other contracts, over-the-counter options and the Preferred Distribution Rate Reset Option contained in our partnership agreement which is classified as an embedded derivative.

The fair values of our Level 3 physical commodity and other contracts and over-the-counter options are based on valuation models utilizing significant timing estimates, which involve management judgment, and pricing inputs from observable and unobservable markets with less volume and transaction frequency than active markets. Significant deviations from these estimates and inputs could result in a material change in fair value. We report unrealized gains and losses associated with these contracts in our Consolidated Statements of Operations as Supply and Logistics segment revenues.

Rollforward of Level 3 Net Asset/(Liability)

The following table provides a reconciliation of changes in fair value of the beginning and ending balances for our derivatives classified as Level 3 (in millions):

	Year Ended December 31,	
	2020	2019
Beginning Balance	$(51)	$(24)
Net gains/(losses) for the period included in earnings	12	10
Settlements	10	(11)
Derivatives entered into during the period	—	(26)
Ending Balance	$(29)	$(51)
Change in unrealized gains/(losses) included in earnings relating to Level 3 derivatives still held at the end of the period	$ 12	$(16)

Note 14 — Leases

Lessee

On January 1, 2019, we adopted ASC Topic 842, *Leases* (“Topic 842”), using the optional transitional method, thereby applying the new guidance at the effective date, without adjusting the comparative periods. Therefore, results for reporting periods beginning after January 1, 2019 are presented under Topic 842, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under ASC Topic 840, *Leases* (“Topic 840”). We evaluate all agreements entered into or modified after the date of adoption of Topic 842 that convey to us the use of property or equipment for a term to determine whether the agreement is or contains a lease. We lease certain property and equipment under noncancelable and cancelable operating and finance leases. Our operating leases primarily relate to railcars, office space, land, vehicles, and storage tanks, and our finance leases primarily relate to tractor trailers, land, storage tanks and vehicles. One of our finance leases is for storage tanks owned by an equity method investee, in which we own a 50% interest. For leases with an initial term of greater than 12 months, we recognize a right-of-use asset and lease liability on the balance sheet. Leases with an initial term of 12 months or less are not recorded on the balance sheet. Our lease agreements have remaining lease terms ranging from one year to approximately 60 years. When applicable, this range includes additional terms associated with leases for which we are reasonably certain to exercise the option to renew and such renewal options are recognized as part of our right-of-use assets and lease liabilities. We have renewal options for leases with terms ranging from one year to 25 years that are not recognized as part of our right-of-use assets or lease liabilities as we have determined we are not reasonably certain to exercise the option to renew.

Certain of our leases have variable lease payments, many of which are based on changes in market indices such as the Consumer Price Index. Our lease agreements for our tractor trailers contain residual value guarantees equal to the fair market value of the tractor trailers at the end of the lease term in the event that we elect not to purchase the asset for an amount equal to the fair value. Our lease agreements do not contain any material restrictive covenants.

For determining the present value of lease payments, we use the discount rate implicit in the lease when readily determinable; however, such rate is not readily determinable for most of our leases. For those leases for which the discount rate is not readily determinable, we utilize incremental borrowing rates that reflect collateralized borrowing with payments and terms that mirror our lease portfolio to discount the lease payments based on information available at the lease commencement date.

The following table presents components of lease cost, including both amounts recognized in income and amounts capitalized (in millions):

Lease Cost	Year Ended December 31, 2020	2019
Operating lease cost	$111	$125
Short-term lease cost	31	35
Other[(1)(2)]	8	—
Total lease cost	$150	$160

(1) Includes finance lease costs, variable lease costs and sublease income.

(2) Includes approximately $6 million for the year ended December 31, 2020 associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

Lease cost for the year ended December 31, 2018, accounted for in accordance with Topic 840, was $199 million.

The following table presents information related to cash flows arising from lease transactions (in millions):

	Year Ended December 31, 2020	2019
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows for operating leases	$108	$116
Operating cash flows for finance leases	$ 5	$ 1
Financing cash flows for finance leases	$ 19	$ 18
Non-cash change in lease liabilities arising from obtaining new right-of-use assets or modifications:		
Operating leases	$ 5	$ 77
Finance leases[(1)]	$ 32	$ 27

(1) Includes approximately $25 million and $12 million for the years ended December 31, 2020 and 2019, respectively, associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

Information related to the weighted-average remaining lease term and discount rate is presented in the table below:

	December 31, 2020	2019
Weighted-average remaining lease term (in years):		
Operating leases	12	11
Finance leases	9	6
Weighted-average discount rate:		
Operating leases	4.5%	4.4%
Finance leases	11.1%	7.1%

The following table presents the amount and location of our operating and finance lease right-of-use assets and liabilities on our Consolidated Balance Sheets (in millions):

Leases	Balance Sheet Location	December 31, 2020	December 31, 2019
Assets			
Operating lease right-of-use assets	Long-term operating lease right-of-use assets, net	$378	$466
Finance lease right-of-use assets[1]	Property and equipment	$141	$124
	Accumulated depreciation	(27)	(16)
	Property and equipment, net	$114	$108
Total lease right-of-use assets		$492	$574
Liabilities			
Operating lease liabilities			
Current	Other current liabilities	$ 78	$ 94
Noncurrent	Long-term operating lease liabilities	317	387
Total operating lease liabilities		$395	$481
Finance lease liabilities[1]			
Current	Short-term debt	$ 11	$ 18
Noncurrent	Other long-term debt, net	70	49
Total finance lease liabilities		$ 81	$ 67
Total lease liabilities		$476	$548

(1) Includes right-of-use assets of $35 million and $12 million and lease liabilities of $36 million and $12 million as of December 31, 2020 and 2019, respectively, associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

The following table presents the maturity of undiscounted cash flows for future minimum lease payments under noncancelable leases as of December 31, 2020 reconciled to our lease liabilities on our Consolidated Balance Sheet (amounts in millions):

	Operating	Finance[2]
Future minimum lease payments[1]:		
2021	$ 90	$ 18
2022	82	18
2023	62	15
2024	49	14
2025	38	11
Thereafter	237	67
Total	558	143
Less: Present value discount	(163)	(62)
Lease liabilities	$ 395	$ 81

(1) Excludes future minimum payments for short-term and other immaterial leases not included on our Consolidated Balance Sheet.

(2) Includes payments of approximately $6 million for each of the years ending 2021 through 2025 and approximately $64 million thereafter associated with leased storage tanks owned by an equity method investee, in which we own a 50% interest.

Lessor

We evaluate all agreements entered into or modified after the date of adoption of Topic 842 that convey to others the use of property or equipment for a term to determine whether the agreement is or contains a lease. Significant judgment is required when determining whether a customer obtains the right to direct the use of identified property or equipment. The underlying assets associated with these agreements are evaluated for future use beyond the lease term.

Our Facilities and Transportation segments enter into agreements to conduct fee-based activities associated with (i) providing storage services primarily for crude oil, NGL and natural gas and (ii) transporting crude oil and NGL. Certain of these agreements convey counterparties the right to direct the operation of physically distinct assets. Such agreements include (i) fixed consideration, which is measured based on an available capacity during the period multiplied by the rate in the agreement, or (ii) a fixed monthly fee and variable consideration based on usage. These agreements often include options to extend or terminate the lease, with advance notice. These agreements are operating leases under Topic 842. For the years ended December 31, 2020 and 2019, our lease revenue was not material.

The table below presents the maturity of lease payments for operating lease agreements in effect as of December 31, 2020. This presentation includes minimum fixed lease payments and does not include an estimate of variable lease consideration. These agreements have remaining lease terms ranging from one year to 21 years. The following table presents the undiscounted cash flows expected to be received related to these agreements (in millions):

	2021	2022	2023	2024	2025	Thereafter
Lease revenue	$40	$27	$22	$18	$16	$205

Note 15 — Income Taxes

Income tax expense is estimated using the tax rate in effect or to be in effect during the relevant periods in the jurisdictions in which we operate. Deferred income tax assets and liabilities are recognized for temporary differences between the basis of assets and liabilities for financial reporting and tax purposes and are stated at enacted tax rates expected to be in effect when taxes are actually paid or recovered. To the extent we do not consider it more likely than not that a deferred tax asset will be recovered, a valuation allowance is established. Changes in tax legislation are included in the relevant computations in the period in which such changes are effective. We review contingent tax liabilities for estimated exposures on a more likely than not standard related to our current tax positions.

Pursuant to FASB guidance related to accounting for uncertainty in income taxes, we may recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained upon examination by the taxing authorities, based on the technical merits of the tax position and also the past administrative practices and precedents of the taxing authority. As of December 31, 2020 and 2019, we had not recognized any material amounts in connection with uncertainty in income taxes.

U.S. Federal and State Taxes

As an MLP, we are not subject to U.S. federal income taxes; rather the tax effect of our operations is passed through to our unitholders. Although we are subject to state income taxes in some states, the impact to the years ended December 31, 2020, 2019, and 2018 was immaterial.

Canadian Federal and Provincial Taxes

All of our Canadian operations are conducted by entities that are treated as corporations for Canadian tax purposes (flow through for U.S. income tax purposes) and that are subject to Canadian federal and provincial taxes. Additionally, payments of interest and dividends from our Canadian entities to other Plains entities are subject to Canadian withholding tax that is treated as income tax expense.

Tax Components

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

	Year Ended December 31,		
	2020	**2019**	**2018**
Current income tax expense:			
State income tax	$ —	$ 3	$ 3
Canadian federal and provincial income tax	51	109	63
Total current income tax expense	$ 51	$112	$ 66
Deferred income tax expense/(benefit):			
Canadian federal and provincial income tax	$(70)	$ (46)	$132
Total deferred income tax expense/(benefit)	$(70)	$ (46)	$132
Total income tax expense/(benefit)	$(19)	$ 66	$198

The difference between income tax expense based on the statutory federal income tax rate and our effective income tax expense is summarized as follows (in millions):

	Year Ended December 31,		
	2020	**2019**	**2018**
Income/(loss) before tax	$(2,599)	$ 2,246	$ 2,414
Partnership (earnings)/loss not subject to current Canadian tax	2,221	(1,769)	(1,690)
	$ (378)	$ 477	$ 724
Canadian federal and provincial corporate tax rate	24%	26%	27%
Income tax expense/(benefit) at statutory rate	$ (91)	$ 124	$ 195
Canadian permanent differences and rate changes	$ 72	$ (61)	$ —
State income tax	—	3	3
Total income tax expense/(benefit)	$ (19)	$ 66	$ 198

The 2020 Canadian permanent differences and rate changes are primarily related to an impairment of goodwill that was recognized during 2020. A portion of the goodwill that was impaired had no basis for Canadian income tax purposes and thus was not a deductible expense in determining taxable income, resulting in a permanent difference for Canadian tax purposes. See Note 8 for additional information regarding this impairment.

During the second quarter of 2019, the Alberta government enacted legislation that reduces the Alberta provincial corporate income tax rate from 12% to 8% over the period from July 1, 2019 through January 1, 2022. As a result, during the second quarter of 2019, we recognized a reduction of our deferred income tax liability of approximately $60 million and a corresponding deferred tax benefit. In the fourth quarter of 2020, the Alberta government changed the timing of the rate reduction to decrease the corporate income tax rate to 8% starting July 1, 2020.

Deferred tax assets and liabilities are aggregated by the applicable tax paying entity and jurisdiction and result from the following (in millions):

	December 31, 2020	December 31, 2019
Deferred tax assets:		
Derivative instruments	$ 45	$ —
Lease liabilities	39	55
Net operating losses	2	2
Other	16	16
Total deferred tax assets	102	73
Deferred tax liabilities:		
Property and equipment in excess of tax values	(475)	(472)
Derivative instruments	—	(22)
Lease assets	(38)	(53)
Other	(3)	(5)
Total deferred tax liabilities	(516)	(552)
Net deferred tax liabilities	$(414)	$(479)
Balance sheet classification of deferred tax assets/(liabilities):		
Other long-term assets, net	$ 2	$ 2
Other long-term liabilities and deferred credits	(416)	(481)
	$(414)	$(479)

As of December 31, 2020, we had foreign net operating loss carryforwards of $9 million, which will expire beginning in 2034.

Generally, tax returns for our Canadian entities are open to audit from 2016 through 2020. Our U.S. and state tax years are generally open to examination from 2017 to 2020.

As of December 31, 2020, in reference to tax years 2008 to 2015, we had received notices of reassessment ("notices") from the Canada Revenue Agency and the Alberta Tax and Revenue Administration (the "Canadian Tax Authorities") related primarily to transfer pricing associated with cross-border intercompany financing transactions. These notices include assessments, including penalties and interest, associated with these transfer pricing matters totaling approximately $91 million (based on the exchange rate as of December 31, 2020). Payment of a portion of the assessment is required in order to file a notice of objection to dispute the reassessment. Accordingly, we have remitted approximately $64 million (based on the exchange rate as of December 31, 2020) related to the assessments, which is included in "Other long-term assets, net," on our Consolidated Balance Sheets. We disagree with these notices and have contested the reassessments. We intend to vigorously defend our position, and we plan to pursue all remedies available to us to successfully resolve these matters, including administrative remedies with the Canadian Tax Authorities, and judicial remedies, if necessary. As of December 31, 2020, we believe that our tax position associated with these matters is "more likely than not" to be sustained and have not recognized any amounts for uncertainty in income taxes related to these notices.

Note 16 — Major Customers and Concentration of Credit Risk

Marathon Petroleum Corporation and its subsidiaries accounted for 13%, 12% and 14% of our revenues for the years ended December 31, 2020, 2019 and 2018, respectively. ExxonMobil Corporation and its subsidiaries accounted for 12%, 12% and 14% of our revenues for the years ended December 31, 2020, 2019 and 2018, respectively. Phillips 66 Company and its subsidiaries accounted for 11% of our revenues for the year ended December 31, 2019. No other customers accounted for 10% or more of our revenues during any of the three years ended December 31, 2020. The majority of revenues from these customers pertain to our supply and logistics operations. The sales to these customers occur at multiple locations and we believe that the loss of these customers would have only a short-term impact on our operating results. There is risk, however, that we would not be able to identify and access a replacement market at comparable margins.

Financial instruments that potentially subject us to concentrations of credit risk consist principally of trade receivables. Our accounts receivable are primarily from purchasers and shippers of crude oil and, to a lesser extent, purchasers of NGL. This industry concentration has the potential to impact our overall exposure to credit risk in that the customers may be similarly affected by changes in economic, industry or other conditions. We review credit exposure and financial information of our counterparties and generally require letters of credit for receivables from customers that are not considered creditworthy, unless the credit risk can otherwise be reduced. See Note 3 for additional discussion of our accounts receivable and our review of credit exposure.

Note 17 — Related Party Transactions

Ownership of PAGP Class C Shares

As of December 31, 2020 and 2019, we owned 547,717,762 and 549,538,139, respectively, Class C shares of PAGP. Each Class C share represents a non-economic limited partner interest in PAGP. The number of Class C shares that we own is equal to the number of outstanding common units and Series A preferred units that are entitled to vote, pro rata with the holders of PAGP Class A and Class B shares, for the election of eligible PAGP GP directors. The Class C shares function as a "pass-through" voting mechanism through which we vote at the direction of and as proxy for our common unitholders and Series A preferred unitholders in such director elections. Common units held by AAP and Series B preferred units are not entitled to vote in the election of directors.

Reimbursement of Our General Partner and its Affiliates

Our general partner provides services necessary to manage and operate our business, properties and assets, including employing or retaining personnel. We do not pay our general partner a management fee, but we do reimburse our general partner for all direct and indirect costs it incurs or payments it makes on our behalf, including the costs of employee, officer and director compensation and benefits allocable to us as well as all other expenses necessary or appropriate to the conduct of our business. We record these costs on the accrual basis in the period in which our general partner incurs them. Our partnership agreement provides that our general partner will determine the expenses that are allocable to us in any reasonable manner determined by our general partner in its sole discretion. Total costs reimbursed by us to our general partner for the years ended December 31, 2020, 2019 and 2018 were $553 million, $580 million and $494 million, respectively.

Omnibus Agreement

The Plains Entities entered into an Omnibus Agreement on November 15, 2016, which provides for the following:

- that we will pay all direct or indirect expenses of any of the PAGP Entities, other than income taxes (including, but not limited to, (i) compensation for the directors of PAGP GP, (ii) director and officer liability insurance, (iii) listing exchange fees, (iv) investor relations expenses and (v) fees related to legal, tax, financial advisory and accounting services). We paid $5 million of such expenses during the year ended December 31, 2020 and $4 million in each of the years ended December 31, 2019 and 2018;

- the ability of PAGP to issue additional Class A shares and use the net proceeds therefrom to purchase a like number of AAP units from AAP, and the corresponding ability of AAP to use the net proceeds therefrom to purchase a like number of our common units from us; and
- the ability of PAGP to lend proceeds of any future indebtedness incurred by it to AAP, and AAP's corresponding ability to lend such proceeds to us, in each case on substantially the same terms as incurred by PAGP.

Transactions with Other Related Parties

Our other related parties include (i) principal owners and their affiliated entities and (ii) entities in which we hold investments and account for under the equity method of accounting (see Note 9 for information regarding such entities). We recognize as our principal owners entities that have a designated representative on the board of directors of PAGP GP and/or own greater than 10% of the limited partner interests in AAP. Such limited partner interests in AAP translates into a significantly smaller indirect ownership interest in PAA. We also consider subsidiaries or funds identified as affiliated with principal owners to be related parties.

As of December 31, 2020, Kayne Anderson Capital Advisors, L.P. was a principal owner. Through various transactions by an affiliate of The Energy & Minerals Group ("EMG") in May 2019, EMG's limited partner interest in AAP was significantly reduced, which caused EMG to lose its right to designate a representative on the board of directors of PAGP GP. As a result, EMG's board designee, John T. Raymond, was automatically removed from the PAGP GP board. Subsequent to such removal, Mr. Raymond was elected to continue to serve as a director of the PAGP GP board. Additionally, as a result of various transactions by Oxy in September 2019, Oxy no longer holds a limited partner interest in AAP and lost its right to designate a representative on the board of directors of PAGP GP. As a result, Oxy's board designee, Oscar Brown, was automatically removed from the PAGP GP board. Following these transactions, we no longer recognize EMG or Oxy as a principal owner.

During the three years ended December 31, 2020, we recognized sales and transportation revenues, purchased petroleum products and utilized transportation and storage services from our principal owners and their affiliated entities and our equity method investees. These transactions were conducted at posted tariff rates or prices that we believe approximate market. Included in these transactions was a crude oil buy/sell agreement that includes a multi-year minimum volume commitment.

The impact to our Consolidated Statements of Operations from these transactions is included below (in millions):

	Year Ended December 31,		
	2020	2019	2018
Revenues from related parties[(1)]	$ 46	$692	$1,067
Purchases and related costs from related parties[(1)]	$451	$223	$ 410

(1) Crude oil purchases that are part of inventory exchanges under buy/sell transactions are netted with the related sales, with any margin presented in "Purchases and related costs" in our Consolidated Statements of Operations.

Our receivable and payable amounts with these related parties as reflected on our Consolidated Balance Sheets were as follows (in millions):

	December 31, 2020	December 31, 2019
Trade accounts receivable and other receivables, net from related parties[(1)]	$34	$134
Trade accounts payable to related parties[(1)(2)]	$88	$102

(1) Includes amounts related to crude oil purchases and sales, transportation and storage services and amounts owed to us or advanced to us related to investment capital projects of equity method investees where we serve as construction manager.

(2) We have agreements to store at facilities and transport crude oil on pipelines that are owned by equity method investees, in which we own a 50% interest. A portion of our commitment to transport is supported by crude oil buy/sell or other agreements with third parties with commensurate quantities.

Note 18 — Equity-Indexed Compensation Plans

Our equity-indexed compensation plans primarily include PAA LTIPs. Our LTIP awards include both liability-classified and equity-classified awards. In accordance with FASB guidance regarding share-based payments, the fair value of liability-classified LTIP awards is calculated based on the closing market price of the underlying PAA unit at each balance sheet date and adjusted for the present value of any distributions that are estimated to occur on the underlying units over the vesting period that will not be received by the award recipients. The fair value for equity-classified awards is calculated in a similar manner on the respective grant dates. These fair values are recognized as compensation expense over the service period. We have elected to recognize forfeitures of awards when they occur.

Our LTIP awards contain (i) time-based vesting criteria, (ii) performance conditions, (iii) market conditions or (iv) a combination of time-based vesting criteria and performance conditions. For awards with performance conditions, expense is accrued over the service period only if the performance condition is considered probable of occurring. When awards with performance conditions that were previously considered improbable become probable, we incur additional expense in the period that the probability assessment changes. This is necessary to bring the accrued obligation associated with these awards up to the level it would be if we had been accruing for these awards since the grant date. For awards with market conditions, the probable outcomes are determined on the respective dates that the fair values are calculated, and the resulting expense is accrued over the service period.

The following is a summary of the awards authorized under our LTIPs as of December 31, 2020 (in millions):

LTIP	PAA LTIP Awards Authorized
Plains All American 2013 Long-Term Incentive Plan	13.1
Plains All American PNG Successor Long-Term Incentive Plan	1.3
Plains All American GP LLC 2006 Long-Term Incentive Tracking Unit Plan	10.8
Total[(1)]	25.2

(1) Of the 25.2 million total awards authorized, 2.1 million awards are currently available. The remaining balance has already vested or is currently outstanding.

Although other types of awards are contemplated under certain of the LTIPs, currently outstanding awards are limited to “phantom units,” which mature into the right to receive common units of PAA (or cash equivalent) upon vesting, and “tracking units,” which, upon vesting, represent the right to receive a cash payment in an amount based upon the market value of a PAA common unit at the time of vesting. Some awards also include DERs, which, subject to applicable vesting criteria, entitle the grantee to a cash payment equal to the cash distribution paid on an outstanding PAA common unit. The DERs terminate with the vesting or forfeiture of the underlying LTIP award.

As of December 31, 2020, 9.6 million LTIP awards were outstanding. Of this amount, 6.9 million include DERs. At December 31, 2020, certain of the outstanding LTIP awards were considered probable of vesting and such awards are expected to vest at various dates between January 2021 and August 2026.

Note 19 — Commitments and Contingencies

Commitments

We have commitments, some of which are leases, related to real property, equipment and operating facilities. We also incur costs associated with leased land, rights-of-way, permits and regulatory fees. Future noncancelable commitments related to these items at December 31, 2020 are summarized below (in millions):

	2021	2022	2023	2024	2025	Thereafter	Total
Leases(1)	$108	$100	$ 77	$ 63	$ 49	$ 304	$ 701
Other commitments(2)	312	303	285	278	252	763	2,193
Total	$420	$403	$362	$341	$301	$1,067	$2,894

(1) 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 for additional information.

(2) Primarily includes storage, transportation and pipeline throughput agreements, as well as certain rights-of-way easements. Expense associated with our storage, transportation and pipeline throughput agreements was approximately $265 million, $236 million and $228 million for 2020, 2019 and 2018, respectively. A majority of the storage, transportation and pipeline throughput commitments are associated with agreements to store crude oil at facilities and transport crude oil on pipelines owned by equity method investees, in which we own a 50% interest, at posted tariff rates or prices that we believe approximate market. A portion of our commitment to transport is supported by crude oil buy/sell or other agreements with third parties with commensurate quantities.

Loss Contingencies — General

To the extent we are able to assess the likelihood of a negative outcome for a contingency, our assessments of such likelihood range from remote to probable. If we determine that a negative outcome is probable and the amount of loss is reasonably estimable, we accrue an undiscounted liability equal to the estimated amount. If a range of probable loss amounts can be reasonably estimated and no amount within the range is a better estimate than any other amount, then we accrue an undiscounted liability equal to the minimum amount in the range. In addition, we estimate legal fees that we expect to incur associated with loss contingencies and accrue those costs when they are material and probable of being incurred.

We do not record a contingent liability when the likelihood of loss is probable but the amount cannot be reasonably estimated or when the likelihood of loss is believed to be only reasonably possible or remote. For contingencies where an unfavorable outcome is reasonably possible and the impact would be material to our consolidated financial statements, we disclose the nature of the contingency and, where feasible, an estimate of the possible loss or range of loss.

Legal Proceedings — General

In the ordinary course of business, we are involved in various legal proceedings, including those arising from regulatory and environmental matters. In connection with determining the probability of loss associated with such legal proceedings and whether any potential losses associated therewith are estimable, we take into account what we believe to be all relevant known facts and circumstances, and what we believe to be reasonable assumptions regarding the application of those facts and circumstances to existing agreements, laws and regulations. Although we are insured against various risks to the extent we believe it is prudent, there is no assurance that the nature and amount of such insurance will be adequate, in every case, to fully protect us from losses arising from current or future legal proceedings.

Accordingly, we can provide no assurance that the outcome of the various legal proceedings that we are currently involved in, or will become involved with in the future, will not, individually or in the aggregate, have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Environmental — General

Although we have made significant investments in our maintenance and integrity programs, we have experienced (and likely will experience future) releases of hydrocarbon products into the environment from our pipeline, rail, storage and other facility operations. These releases can result from accidents or from unpredictable man-made or natural forces and may reach surface water bodies, groundwater aquifers or other sensitive environments. Damages and liabilities associated with any such releases from our existing or future assets could be significant and could have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

We record environmental liabilities when environmental assessments and/or remedial efforts are probable and the amounts can be reasonably estimated. Generally, our recording of these accruals coincides with our completion of a feasibility study or our commitment to a formal plan of action. We do not discount our environmental remediation liabilities to present value. We also record environmental liabilities assumed in business combinations based on the estimated fair value of the environmental obligations caused by past operations of the acquired company. We record receivables for amounts we believe are recoverable from insurance or from third parties under indemnification agreements in the period that we determine the costs are probable of recovery.

Environmental expenditures that pertain to current operations or to future revenues are expensed or capitalized consistent with our capitalization policy for property and equipment. Expenditures that result from the remediation of an existing condition caused by past operations and that do not contribute to current or future profitability are expensed.

At December 31, 2020, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident, as discussed further below) totaled $141 million, of which $94 million was classified as short-term and $47 million was classified as long-term. At December 31, 2019, our estimated undiscounted reserve for environmental liabilities (including liabilities related to the Line 901 incident) totaled $140 million, of which $60 million was classified as short-term and $80 million was classified as long-term. Such short-term liabilities are reflected in “Trade accounts payable” and “Other current liabilities” and long-term liabilities are reflected in “Other long-term liabilities and deferred credits” on our Consolidated Balance Sheets. At December 31, 2020, we had recorded receivables totaling $97 million for amounts probable of recovery under insurance and from third parties under indemnification agreements, of which $96 million was classified as short-term and $1 million was classified as long-term. At December 31, 2019, we had recorded $72 million of such receivables, of which $35 million was classified as short-term and $37 million was classified as long-term. Such short- and long-term receivables are reflected in “Trade accounts receivable and other receivables, net” and “Other long-term assets, net,” respectively, on our Consolidated Balance Sheets.

In some cases, the actual cash expenditures associated with these liabilities may not occur for three years or longer. Our estimates used in determining these reserves are based on information currently available to us 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 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 and the possibility of existing or future legal claims giving rise to additional liabilities. Therefore, although we believe that the reserve is adequate, actual costs incurred (which may ultimately include costs for contingencies that are currently not reasonably estimable or costs for contingencies where the likelihood of loss is currently believed to be only reasonably possible or remote) may be in excess of the reserve and may potentially have a material adverse effect on our consolidated financial condition, results of operations or cash flows.

Specific Legal, Environmental or Regulatory Matters

Line 901 Incident. In May 2015, we experienced a crude oil release from our Las Flores to Gaviota Pipeline (Line 901) in Santa Barbara County, California. A portion of the released crude oil reached the Pacific Ocean at Refugio State Beach through a drainage culvert. Following the release, we shut down the pipeline and initiated our emergency response plan. A Unified Command, which included the United States Coast Guard, the EPA, the State of California Department of Fish and Wildlife (“CDFW”), the California Office of Spill Prevention and Response and the Santa Barbara Office of Emergency Management, was established for the response effort. Clean-up and remediation operations with respect to impacted shoreline and other areas has been determined by the Unified Command to be complete, and the Unified Command has been dissolved. Our estimate of the amount of oil spilled, based on relevant facts, data and information, and as set forth in the Consent Decree described below, is approximately 2,934 barrels; of this amount, we estimate that 598 barrels reached the Pacific Ocean.

As a result of the Line 901 incident, several governmental agencies and regulators initiated investigations into the Line 901 incident, various claims have been made against us and a number of lawsuits have been filed against us, the majority of which have been resolved. Set forth below is a brief summary of actions and matters that are currently pending or recently resolved:

As the “responsible party” for the Line 901 incident we are liable for various costs and for certain natural resource damages under the Oil Pollution Act. In this regard, following the Line 901 incident, we entered into a cooperative Natural Resource Damage Assessment (“NRDA”) process with the federal and state agencies designated or authorized by law to act as trustees for the natural resources of the United States and the State of California (collectively, the “Trustees”). Additionally, various government agencies sought to collect civil fines and penalties under applicable state and federal regulations. On March 13, 2020, the United States and the People of the State of California filed a civil complaint against Plains All American Pipeline, L.P. and Plains Pipeline L.P. along with a pre-negotiated settlement agreement in the form of a Consent Decree (the “Consent Decree”) that was signed by the United States Department of Justice, Environmental and Natural Resources Division, the United States Department of Transportation, Pipeline and Hazardous Materials Safety Administration, the EPA, CDFW, the California Department of Parks and Recreation, the California State Lands Commission, the California Department of Forestry and Fire Protection’s Office of the State Fire Marshal, Central Coast Regional Water Quality Control Board, and Regents of the University of California. The Consent Decree was approved and entered by the Federal District Court for the Central District of California on October 14, 2020. Pursuant to the terms of the Consent Decree, Plains paid $24 million in civil penalties and $22.325 million as compensation for injuries to, destruction of, loss of, or loss of use of natural resources resulting from the Line 901 incident. The Consent Decree also contains requirements for implementing certain agreed-upon injunctive relief, as well as requirements for potentially restarting Line 901 and the Sisquoc to Pentland portion of Line 903. The Consent Decree resolved all claims asserted by the regulatory agencies.

Following an investigation and grand jury proceedings, in May of 2016, PAA was charged by a California state grand jury, pursuant to an indictment filed in California Superior Court, Santa Barbara

County (the "May 2016 Indictment"), with alleged violations of California law in connection with the Line 901 incident. Fifteen charges from the May 2016 Indictment were the subject of a jury trial in California Superior Court in Santa Barbara County, and the jury returned a verdict on September 7, 2018, pursuant to which we were (i) found guilty on one felony discharge count and eight misdemeanor counts (which included one reporting count, one strict liability discharge count and six strict liability animal takings counts) and (ii) found not guilty on one strict liability animal takings count. The remaining counts were subsequently dismissed by the Court. On April 25, 2019, PAA was sentenced to pay fines and penalties in the aggregate amount of just under $3.35 million for the convictions covered by the September 2018 jury verdict (the "2019 Sentence"). The fines and penalties imposed in connection with the 2019 Sentence have been paid. The only pending matter relating to these proceedings is that the Superior Court indicated that it would conduct further hearings on the issue of whether there were any "direct victims" of the spill that are entitled to restitution under applicable law.

Shortly following the Line 901 incident, we established a claims line and encouraged any parties that were damaged by the release to contact us to discuss their damage claims. We received a number of claims through the claims line and we have processed those claims and made payments as appropriate. Nine class action lawsuits were filed against us; however, after various claims were either dismissed or consolidated, two proceedings remain pending in the United States District Court for the Central District of California. In the first proceeding, the plaintiffs claim two different classes of claimants were damaged by the release: (i) commercial fishermen who landed fish in certain specified fishing blocks in the waters off the coast of Southern California or persons or businesses who resold commercial seafood caught in those areas; and (ii) owners and lessees of residential beachfront properties, or properties with a private easement to a beach, where plaintiffs claim oil from the spill washed up. We are vigorously defending against those claims. A September 2020 trial date initially set by the Court has been postponed indefinitely due to COVID-19 related trial suspensions. In the second proceeding, the plaintiffs seek a declaratory judgment that Plains' right-of-way agreements would not allow Plains to lay a new pipeline to replace Line 901 and/or the non-operating segment of Line 903 without paying additional compensation. No trial date has been set in that action.

In addition, four unitholder derivative lawsuits were filed by certain purported investors in the Partnership against PAGP and certain of the Partnership's affiliates, officers and directors. After various claims were either dismissed or consolidated, one proceeding against PAGP remains pending in Delaware Chancery Court. Generally, the plaintiffs claim that PAGP failed to exercise proper oversight over the Partnership's pipeline integrity efforts. We will vigorously defend the claim. No trial date has been set in this action.

We have also received several other individual lawsuits and claims from companies, governmental agencies and individuals alleging damages arising out of the Line 901 incident. These lawsuits and claims generally seek restitution, compensatory and punitive damages, and/or injunctive relief. The majority of these lawsuits have been settled or dismissed by the court. Remaining claims include claims for lost revenue or profit asserted by a former oil producer that declared bankruptcy and shut in its offshore production platform following the Line 901 incident, a state agency that received royalties on oil produced from that platform until it was abandoned by its owner, and various companies and individuals who provided labor, goods, or services associated with oil production activities they claim were disrupted following the Line 901 incident. The courts have not finally resolved whether those claims are legally viable; however, if necessary, we will mount vigorous defenses to them. We may be subject to additional claims and lawsuits, which could materially impact the liabilities and costs we currently expect to incur as a result of the Line 901 incident.

Taking the foregoing into account, as of December 31, 2020, we estimate that the aggregate total costs we have incurred or will incur with respect to the Line 901 incident will be approximately $460 million, which estimate includes actual and projected emergency response and clean-up costs, natural resource damage assessments, fines and penalties payable pursuant to the Consent Decree and certain third-party claims settlements, as well as estimates for certain legal fees. We accrue such estimates of aggregate total costs to "Field operating costs" in our Consolidated Statements of Operations. This estimate considers our prior experience in environmental investigation and remediation matters and available data from, and in consultation with, our environmental and other specialists, as well as currently available facts and presently enacted laws and regulations. We have made assumptions for (i) the resolution of certain third-party claims and lawsuits, but excluding claims and lawsuits with respect to which losses are not probable and reasonably estimable, and excluding future claims and lawsuits and (ii) the nature, extent and cost of legal services that will be required in connection with all lawsuits, claims and other matters requiring legal or expert advice associated with the Line 901 incident. Our estimate does not include any lost revenue associated with the shutdown of Line 901 or 903 and does not include any liabilities or costs that are not reasonably estimable at this time or that relate to contingencies where we currently regard the likelihood of loss as being only reasonably possible or remote. We believe we have accrued adequate amounts for all probable and reasonably estimable costs; however, this estimate is subject to uncertainties associated with the assumptions that we have made. For example, the amount of time it takes for us to resolve all of the current and future lawsuits and claims that relate to the Line 901 incident could turn out to be significantly longer than we have assumed, and as a result the costs we incur for legal services could be significantly higher than we have estimated. Accordingly, our assumptions and estimates may turn out to be inaccurate and our total costs could turn out to be materially higher; therefore, we can provide no assurance that we will not have to accrue significant additional costs in the future with respect to the Line 901 incident.

As of December 31, 2020, we had a remaining undiscounted gross liability of $86 million related to this event, which is reflected in “Trade accounts payable” and “Other current liabilities” on our Consolidated Balance Sheet. We maintain insurance coverage, which is subject to certain exclusions and deductibles, in the event of such environmental liabilities. Subject to such exclusions and deductibles, we believe that our coverage is adequate to cover the current estimated total emergency response and clean-up costs, claims settlement costs and remediation costs and we believe that this coverage is also adequate to cover any potential increase in the estimates for these costs that exceed the amounts currently identified. Through December 31, 2020, we had collected, subject to customary reservations, $245 million out of the approximate $335 million of release costs that we believe are probable of recovery from insurance carriers, net of deductibles. Therefore, as of December 31, 2020, we have recognized a receivable of approximately $90 million for the portion of the release costs that we believe is probable of recovery from insurance, net of deductibles and amounts already collected. Such amount is recognized as a current asset in “Trade accounts receivable and other receivables, net” on our Consolidated Balance Sheet. We have completed the required clean-up and remediation work as determined by the Unified Command and the Unified Command has been dissolved; however, we expect to make payments for additional costs associated with restoration of the impacted areas, as well as legal, professional and regulatory costs during future periods.

Environmental Remediation

We currently own or lease, and in the past have owned and leased, properties where hazardous liquids, including hydrocarbons, are or have been handled. These properties and the hazardous liquids or associated wastes disposed thereon may be subject to the U.S. federal Comprehensive Environmental Response, Compensation and Liability Act, as amended, and the U.S. federal Resource Conservation and Recovery Act, as amended, as well as state and Canadian federal and provincial laws and regulations. Under such laws and regulations, we could be required to remove or remediate hazardous liquids or associated wastes (including wastes disposed of or released by prior owners or operators) and to clean up contaminated property (including contaminated groundwater).

We maintain insurance of various types with varying levels of coverage that we consider adequate under the circumstances to cover our operations and properties. The insurance policies are subject to deductibles and retention levels that we consider reasonable and not excessive. Consistent with insurance coverage generally available in the industry, in certain circumstances our insurance policies provide limited coverage for losses or liabilities relating to gradual pollution, with broader coverage for sudden and accidental occurrences.

Assets we have acquired or will acquire in the future may have environmental remediation liabilities for which we are not indemnified. We have in the past experienced and in the future likely will experience releases of hydrocarbon products into the environment from our pipeline, rail, storage and other facility operations. We also may discover environmental impacts from past releases that were previously unidentified.

Insurance

Pipelines, terminals, trucks or other facilities or equipment may experience damage as a result of an accident, natural disaster, terrorist attack, cyber event or other event. These hazards can cause personal injury and loss of life, severe damage to and destruction of property and equipment, pollution or environmental damage and suspension of operations. We maintain various types and varying levels of insurance coverage to cover our operations and properties, and we self-insure certain risks, including gradual pollution, cybersecurity and named windstorms. However, such insurance does not cover every potential risk that might occur, associated with operating pipelines, terminals and other facilities and equipment, including the potential loss of significant revenues and cash flows.

The occurrence of a significant event not fully insured, indemnified or reserved against, or the failure of a party to meet its indemnification obligations, could materially and adversely affect our operations and financial condition. We believe that we maintain adequate insurance coverage, although insurance will not cover many types of interruptions that might occur, will not cover amounts up to applicable deductibles and will not cover all risks associated with certain of our assets and operations. With respect to our insurance coverage, our policies are subject to deductibles and retention levels that we consider reasonable and not excessive. Additionally, no assurance can be given that we will be able to maintain adequate insurance in the future at rates we consider reasonable. As a result, we may elect to self-insure or utilize higher deductibles in certain other insurance programs. In addition, although we believe that we have established adequate reserves and liquidity to the extent such risks are not insured, costs incurred in excess of these reserves may be higher or we may not receive insurance proceeds in a timely manner, which may potentially have a material adverse effect on our financial conditions, results of operations or cash flows.

Note 20 — Quarterly Financial Data (Unaudited)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Total[1]
		(in millions, except per unit data)			
2020					
Total revenues	$ 8,269	$3,225	$5,833	$5,963	$23,290
Gross margin[2]	$ (189)	$ 282	$ 314	$ 5	$ 411
Operating income/(loss)	$(2,773)	$ 210	$ 253	$ (65)	$ (2,375)
Net income/(loss)	$(2,845)	$ 144	$ 146	$ (25)	$ (2,580)
Net income/(loss) attributable to PAA	$(2,847)	$ 142	$ 143	$ (28)	$ (2,590)
Basic net income/(loss) per common unit	$ (3.98)	$ 0.13	$ 0.13	$ (0.11)	$ (3.83)
Diluted net income/(loss) per common unit	$ (3.98)	$ 0.13	$ 0.13	$ (0.11)	$ (3.83)
Cash distributions per common unit[3]	$ 0.36	$ 0.18	$ 0.18	$ 0.18	$ 0.90
2019					
Total revenues	$ 8,375	$8,253	$7,886	$9,154	$33,669
Gross margin[2]	$ 790	$ 526	$ 566	$ 403	$ 2,285
Operating income	$ 714	$ 451	$ 492	$ 331	$ 1,988
Net income	$ 970	$ 448	$ 454	$ 307	$ 2,180
Net income attributable to PAA	$ 970	$ 446	$ 449	$ 306	$ 2,171
Basic net income per common unit	$ 1.26	$ 0.54	$ 0.55	$ 0.35	$ 2.70
Diluted net income per common unit	$ 1.20	$ 0.54	$ 0.55	$ 0.35	$ 2.65
Cash distributions per common unit[3]	$ 0.30	$ 0.36	$ 0.36	$ 0.36	$ 1.38

(1) The sum of the four quarters may not equal the total year due to rounding.

(2) Gross margin is calculated as Total revenues less (i) Purchases and related costs, (ii) Field operating costs, (iii) Depreciation and amortization and (iv) (Gains)/losses on asset sales and asset impairments, net.

(3) Represents cash distributions declared and paid in the period presented.

The quarterly financial data in the table above includes the impact of:

- impairments of long-lived assets of $446 million and $95 million in the first and fourth quarter of 2020, respectively, as well as $167 million of non-cash impairments recognized upon classification to assets held for sale during the first quarter of 2020. Such amounts are reflected in "(Gains)/losses on asset sales and asset impairments, net" in our Consolidated Statement of Operations. See Note 6 for additional information;
- goodwill impairment losses of $2.515 billion in the first quarter of 2020, which is reflected in "Goodwill impairment losses" in our Consolidated Statement of Operations. See Note 8 for additional information; and
- other-than-temporary impairments of certain of our investments in unconsolidated entities of $69 million and $91 million in the second and third quarter of 2020, respectively, as well as a write-down of certain of our investments of $43 million in the first quarter of 2020. The first and third quarter of 2019 include a gain on our investment in Capline LLC of $267 million and $2 million, respectively. Such amounts are reflected in "Gain on/(impairment of) investments in unconsolidated entities, net" in our Consolidated Statements of Operations. See Note 9 for additional information.

Note 21 — Operating Segments

We manage our operations through three operating segments: Transportation, Facilities and Supply and Logistics. See Note 3 for a summary of the types of products and services from which each segment derives its revenues. Our Chief Operating Decision Maker ("CODM") (our Chief Executive Officer) evaluates segment performance based on measures including Segment Adjusted EBITDA (as defined below) and maintenance capital investment.

The measure of Segment Adjusted EBITDA forms the basis of our internal financial reporting and is the primary performance measure used by our CODM in assessing performance and allocating resources among our operating segments. 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 unconsolidated entities, and further adjusted for certain selected items including (i) 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, (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 the applicable amounts subsequently recognized into revenue and (v) other items that our CODM believes are integral to understanding our core segment operating performance.

Segment Adjusted EBITDA excludes depreciation and amortization. As an MLP, we make quarterly distributions of our "available cash" (as defined in our partnership agreement) to our unitholders. We look at each period's earnings before non-cash depreciation and amortization as an important measure of segment performance. The exclusion of depreciation and amortization expense could be viewed as limiting the usefulness of Segment Adjusted EBITDA as a performance measure because it does not account in current periods for the implied reduction in value of our capital assets, such as crude oil pipelines and facilities, caused by age-related decline and wear and tear. We compensate for this limitation by recognizing that depreciation and amortization are largely offset by repair and maintenance investments, which act to partially offset the aging and wear and tear in the value of our principal fixed assets. These maintenance investments are a component of field operating costs included in Segment Adjusted EBITDA or in maintenance capital, depending on the nature of the cost. Capital expenditures made to expand the existing operating and/or earnings capacity of our assets are classified as investment 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, which is deducted in determining "available cash." Repair and maintenance expenditures incurred in order to maintain the day to day operation of our existing assets are charged to expense as incurred.

The following tables reflect certain financial data for each segment (in millions):

	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Year Ended December 31, 2020					
Revenues:					
External customers[(1)]	$ 1,016	$ 622	$22,058	$(406)	$23,290
Intersegment[(2)]	1,004	516	1	406	1,927
Total revenues of reportable segments	$ 2,020	$1,138	$22,059	$ —	$25,217
Equity earnings in unconsolidated entities	$ 350	$ 5	$ —		$ 355
Segment Adjusted EBITDA	$ 1,616	$ 731	$ 210		$ 2,557
Investment and acquisition capital[(3)]	$ 981	$ 173	$ 77		$ 1,231
Maintenance capital	$ 136	$ 51	$ 29		$ 216
As of December 31, 2020					
Total assets	$13,631	$5,845	$ 5,021		$24,497
Investments in unconsolidated entities	$ 3,642	$ 122	$ —		$ 3,764

	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Year Ended December 31, 2019					
Revenues:					
External customers[(1)]	$ 1,259	$ 609	$32,272	$(471)	$33,669
Intersegment[(2)]	1,061	562	4	471	2,098
Total revenues of reportable segments	$ 2,320	$1,171	$32,276	$ —	$35,767
Equity earnings in unconsolidated entities	$ 388	$ —	$ —		$ 388
Segment Adjusted EBITDA	$ 1,722	$ 705	$ 803		$ 3,230
Investment and acquisition capital[(3)]	$ 1,127	$ 227	$ 33		$ 1,387
Maintenance capital	$ 161	$ 97	$ 29		$ 287
As of December 31, 2019					
Total assets	$14,902	$7,336	$ 6,439		$28,677
Investments in unconsolidated entities	$ 3,557	$ 126	$ —		$ 3,683

	Transportation	Facilities	Supply and Logistics	Intersegment Adjustment	Total
Year Ended December 31, 2018					
Revenues:					
External customers[1]	$ 1,116	$ 588	$32,819	$(468)	$34,055
Intersegment[2]	874	573	3	468	1,918
Total revenues of reportable segments	$ 1,990	$1,161	$32,822	$ —	$35,973
Equity earnings in unconsolidated entities	$ 375	$ —	$ —		$ 375
Segment Adjusted EBITDA	$ 1,508	$ 711	$ 462		$ 2,681
Investment and acquisition capital[3]	$ 1,631	$ 234	$ 23		$ 1,888
Maintenance capital	$ 139	$ 100	$ 13		$ 252
As of December 31, 2018					
Total assets	$13,288	$7,200	$ 5,023		$25,511
Investments in unconsolidated entities	$ 2,594	$ 108	$ —		$ 2,702

(1) Transportation revenues from External customers include certain inventory exchanges with our customers where our Supply and Logistics segment has transacted the inventory exchange and serves as the shipper on our pipeline systems. See Note 3 for a discussion of our related accounting policy. We have included an estimate of the revenues from these inventory exchanges in our Transportation segment revenues from External customers presented above and adjusted those revenues out such that Total revenues from External customers reconciles to our Consolidated Statements of Operations. This presentation is consistent with the information provided to our CODM.

(2) Segment revenues include intersegment amounts that are eliminated in Purchases and related costs and Field operating costs in our Consolidated Statements of Operations. Intersegment activities are conducted at posted tariff rates where applicable, or otherwise at rates similar to those charged to third parties or rates that we believe approximate market at the time the agreement is executed or renegotiated.

(3) Investment and acquisition capital expenditures, including investments in unconsolidated entities.

Segment Adjusted EBITDA Reconciliation

The following table reconciles Segment Adjusted EBITDA to Net income/(loss) attributable to PAA (in millions):

	Year Ended December 31,		
	2020	2019	2018
Segment Adjusted EBITDA	$ 2,557	$3,230	$2,681
Adjustments[1]:			
Depreciation and amortization of unconsolidated entities[2]	(73)	(62)	(56)
Gains/(losses) from derivative activities, net of inventory valuation adjustments[3]	(480)	(160)	519
Long-term inventory costing adjustments[4]	(44)	20	(21)
Deficiencies under minimum volume commitments, net[5]	(74)	18	(7)
Equity-indexed compensation expense[6]	(19)	(17)	(55)

	Year Ended December 31,		
	2020	2019	2018
Net gain/(loss) on foreign currency revaluation[7]	3	(14)	(3)
Line 901 incident[8]	—	(10)	—
Significant acquisition-related expenses[9]	(3)	—	—
Depreciation and amortization	(653)	(601)	(520)
Gains/(losses) on asset sales and asset impairments, net	(719)	(28)	114
Goodwill impairment losses	(2,515)	—	—
Gain on/(impairment of) investments in unconsolidated entities, net	(182)	271	200
Interest expense, net	(436)	(425)	(431)
Other income/(expense), net	39	24	(7)
Income/(loss) before tax	(2,599)	2,246	2,414
Income tax (expense)/benefit	19	(66)	(198)
Net income/(loss)	(2,580)	2,180	2,216
Net income attributable to noncontrolling interests	(10)	(9)	—
Net income/(loss) attributable to PAA	$(2,590)	$2,171	$2,216

(1) Represents adjustments utilized by our CODM in the evaluation of segment results.

(2) Includes our proportionate share of the depreciation and amortization of unconsolidated entities.

(3) 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, 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 Segment 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.

(4) 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 exclude the impact of changes in the average cost of the long-term inventory (that result from fluctuations in market prices) and write-downs of such inventory that result from price declines from Segment Adjusted EBITDA.

(5) We, and certain of our equity method investments, 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. Our CODM views the inclusion of the contractually committed revenues associated with that period as meaningful to Segment Adjusted EBITDA 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.

(6) Includes equity-indexed compensation expense associated with awards that will or may be settled in units.

(7) Includes gains and losses realized on the settlement of foreign currency transactions as well as the revaluation of monetary assets and liabilities denominated in a foreign currency.

(8) 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 for additional information regarding the Line 901 incident.

(9) Includes acquisition-related expenses associated with the Felix Midstream LLC acquisition. See Note 7 for additional discussion. An adjustment for these non-recurring expenses is included in the calculation of Segment Adjusted EBITDA for the year ended December 31, 2020 as our CODM does not view such expenses as integral to understanding our core segment operating performance.

Geographic Data

We have operations in the United States and Canada. Set forth below are revenues and long-lived assets attributable to these geographic areas (in millions):

	Year Ended December 31,		
Revenues[1]	**2020**	**2019**	**2018**
United States	$17,942	$27,162	$28,362
Canada	5,348	6,507	5,693
	$23,290	$33,669	$34,055

(1) Revenues are primarily attributed to each region based on where the services are provided or the product is shipped.

	December 31,	
Long-Lived Assets[1]	**2020**	**2019**
United States	$16,887	$17,565
Canada	3,892	3,935
	$20,779	$21,500

(1) Excludes long-term derivative assets, long-term deferred tax assets and goodwill.