UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended **June 30, 2023**

OR

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

For the transition period from __________ to __________

Commission file number **001-35054**

Marathon Petroleum Corporation

(Exact name of registrant as specified in its charter)

Delaware	**27-1284632**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

539 South Main Street, Findlay, Ohio 45840-3229

(Address of principal executive offices) (Zip code)

(419) 422-2121

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $.01	MPC	New York Stock Exchange

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

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

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

Large accelerated filer ☑ Accelerated filer ☐ Non-accelerated filer ☐ Smaller reporting company ☐

Emerging growth company ☐

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

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

There were 399,844,048 shares of Marathon Petroleum Corporation common stock outstanding as of July 26, 2023.

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Unless otherwise stated or the context otherwise indicates, all references in this Form 10-Q to “MPC,” “us,” “our,” “we” or “the Company” mean Marathon Petroleum Corporation and its consolidated subsidiaries.

Glossary of Terms

Throughout this report, the following company or industry specific terms and abbreviations are used:

ANS	Alaska North Slope crude oil, an oil index benchmark price
ASC	Accounting Standards Codification
ASU	Accounting Standards Update
barrel	One stock tank barrel, or 42 U.S. gallons liquid volume, used in reference to crude oil or other liquid hydrocarbons
CARB	California Air Resources Board
CARBOB	California Reformulated Gasoline Blendstock for Oxygenate Blending
CBOB	Conventional Blending for Oxygenate Blending
EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization (a non-GAAP financial measure)
EPA	U.S. Environmental Protection Agency
FASB	Financial Accounting Standards Board
GAAP	Accounting principles generally accepted in the United States
LIFO	Last in, first out, an inventory costing method
mbpd	Thousand barrels per day
MEH	Magellan East Houston crude oil, an oil index benchmark price
MMBtu	One million British thermal units
NGL	Natural gas liquids, such as ethane, propane, butanes and natural gasoline
NYMEX	New York Mercantile Exchange
RFS2	Revised Renewable Fuel Standard program, as required by the Energy Independence and Security Act of 2007
RIN	Renewable Identification Number
SEC	U.S. Securities and Exchange Commission
ULSD	Ultra-low sulfur diesel
USGC	U.S. Gulf Coast
VIE	Variable interest entity
WTI	West Texas Intermediate crude oil, an oil index benchmark price

PART I – FINANCIAL INFORMATION

Item 1. Financial Statements

Marathon Petroleum Corporation

Consolidated Statements of Income (Unaudited)

(In millions, except per share data)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Revenues and other income:				
Sales and other operating revenues	$ 36,343	$ 53,795	$ 71,207	$ 91,853
Income from equity method investments	199	147	332	289
Net gain on disposal of assets	13	39	16	21
Other income	269	257	346	459
Total revenues and other income	36,824	54,238	71,901	92,622
Costs and expenses:				
Cost of revenues (excludes items below)	31,762	44,207	61,056	79,275
Depreciation and amortization	834	819	1,634	1,624
Selling, general and administrative expenses	704	694	1,395	1,297
Other taxes	219	190	450	382
Total costs and expenses	33,519	45,910	64,535	82,578
Income from operations	3,305	8,328	7,366	10,044
Net interest and other financial costs	142	312	296	574
Income before income taxes	3,163	8,016	7,070	9,470
Provision for income taxes	583	1,799	1,406	2,081
Net income	2,580	6,217	5,664	7,389
Less net income attributable to:				
Redeemable noncontrolling interest	23	21	46	42
Noncontrolling interests	331	323	668	629
Net income attributable to MPC	$ 2,226	$ 5,873	$ 4,950	$ 6,718
Per share data (See Note 7)				
Basic:				
Net income attributable to MPC per share	$ 5.34	$ 11.03	$ 11.49	$ 12.24
Weighted average shares outstanding	417	532	430	549
Diluted:				
Net income attributable to MPC per share	$ 5.32	$ 10.95	$ 11.44	$ 12.15
Weighted average shares outstanding	419	536	432	553

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

Marathon Petroleum Corporation

Consolidated Statements of Comprehensive Income (Unaudited)

(Millions of dollars)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Net income	$ 2,580	$ 6,217	$ 5,664	$ 7,389
Defined benefit plans:				
Actuarial changes, net of tax of $(2), $7, $(1) and $11, respectively	(6)	21	(4)	33
Prior service, net of tax of $(4), $(4), $(8) and $(8), respectively	(12)	(12)	(25)	(25)
Other, net of tax of $(1), $—, $(1) and $(2), respectively	(3)	—	(3)	(6)
Other comprehensive income (loss)	(21)	9	(32)	2
Comprehensive income	2,559	6,226	5,632	7,391
Less comprehensive income attributable to:				
Redeemable noncontrolling interest	23	21	46	42
Noncontrolling interests	331	323	668	629
Comprehensive income attributable to MPC	$ 2,205	$ 5,882	$ 4,918	$ 6,720

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

Marathon Petroleum Corporation

Consolidated Balance Sheets (Unaudited)

(Millions of dollars, except share data)	June 30, 2023	December 31, 2022
Assets		
Cash and cash equivalents	$ 7,345	$ 8,625
Short-term investments	4,109	3,145
Receivables, less allowance for doubtful accounts of $54 and $29, respectively	10,274	13,477
Inventories	9,536	8,827
Other current assets	949	1,168
Total current assets	32,213	35,242
Equity method investments	6,665	6,466
Property, plant and equipment, net	35,059	35,657
Goodwill	8,244	8,244
Right of use assets	1,288	1,214
Other noncurrent assets	2,973	3,081
Total assets	$ 86,442	$ 89,904
Liabilities		
Accounts payable	$ 13,052	$ 15,312
Payroll and benefits payable	712	967
Accrued taxes	1,160	1,140
Debt due within one year	72	1,066
Operating lease liabilities	423	368
Other current liabilities	2,047	1,167
Total current liabilities	17,466	20,020
Long-term debt	27,211	25,634
Deferred income taxes	5,913	5,904
Defined benefit postretirement plan obligations	1,181	1,114
Long-term operating lease liabilities	859	841
Deferred credits and other liabilities	1,244	1,304
Total liabilities	53,874	54,817
Commitments and contingencies (see Note 23)		
Redeemable noncontrolling interest	968	968
Equity		
Preferred stock, no shares issued and outstanding (par value $0.00 per share, 30 million shares authorized)	—	—
Common stock:		
Issued – 992 million and 990 million shares (par value $0.01 per share, 2 billion shares authorized)	10	10
Held in treasury, at cost – 587 million and 536 million shares	(38,119)	(31,841)
Additional paid-in capital	33,411	33,402
Retained earnings	30,442	26,142
Accumulated other comprehensive income (loss)	(30)	2
Total MPC stockholders’ equity	25,714	27,715
Noncontrolling interests	5,886	6,404
Total equity	31,600	34,119
Total liabilities, redeemable noncontrolling interest and equity	$ 86,442	$ 89,904

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

Marathon Petroleum Corporation

Consolidated Statements of Cash Flows (Unaudited)

(Millions of dollars)	Six Months Ended June 30, 2023	2022
Operating activities:		
Net income	$ 5,664	$ 7,389
Adjustments to reconcile net income to net cash provided by operating activities:		
Amortization of deferred financing costs and debt discount	(27)	33
Depreciation and amortization	1,634	1,624
Pension and other postretirement benefits, net	25	117
Deferred income taxes	22	(92)
Net gain on disposal of assets	(16)	(21)
Income from equity method investments	(332)	(289)
Distributions from equity method investments	429	336
Changes in income tax receivable	46	11
Changes in the fair value of derivative instruments	88	(169)
Changes in:		
Current receivables	3,238	(6,282)
Inventories	(708)	(2,979)
Current accounts payable and accrued liabilities	(1,861)	10,106
Right of use assets and operating lease liabilities, net	(1)	2
All other, net	(160)	(277)
Cash provided by operating activities - continuing operations	8,041	9,509
Cash used in operating activities - discontinued operations	—	(44)
Net cash provided by operating activities	8,041	9,465
Investing activities:		
Additions to property, plant and equipment	(938)	(993)
Acquisitions, net of cash acquired	—	(74)
Disposal of assets	24	72
Investments – acquisitions and contributions	(296)	(160)
– redemptions, repayments and return of capital	—	—
Purchases of short-term investments	(4,723)	(2,581)
Sales of short-term investments	1,583	1,075
Maturities of short-term investments	2,231	2,811
All other, net	423	470
Net cash provided by (used in) investing activities	(1,696)	620
Financing activities:		
Long-term debt – borrowings	1,589	2,385
– repayments	(1,043)	(1,237)
Debt issuance costs	(15)	(16)
Issuance of common stock	27	167
Common stock repurchased	(6,248)	(6,177)
Dividends paid	(653)	(643)
Distributions to noncontrolling interests	(635)	(599)
Repurchases of noncontrolling interests	—	(135)
Redemption of noncontrolling interests - preferred units	(600)	—

(Millions of dollars)	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
All other, net	(49)	(41)
Net cash used in financing activities	(7,627)	(6,296)
Net change in cash, cash equivalents and restricted cash	(1,282)	3,789
Cash, cash equivalents and restricted cash at beginning of period[a]	8,631	5,294
Cash, cash equivalents and restricted cash at end of period[a]	$ 7,349	$ 9,083

[a] Restricted cash is included in other current assets on our consolidated balance sheets.

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

Marathon Petroleum Corporation

Consolidated Statements of Equity and Redeemable Noncontrolling Interest (Unaudited)

	MPC Stockholders' Equity									
	Common Stock		Treasury Stock							
(Shares in millions; amounts in millions of dollars)	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Equity	Redeemable Non-controlling Interest
Balance as of December 31, 2022	990	$ 10	(536)	$ (31,841)	$ 33,402	$ 26,142	$ 2	$ 6,404	$ 34,119	$ 968
Net income	—	—	—	—	—	2,724	—	337	3,061	23
Dividends declared on common stock ($0.75 per share)	—	—	—	—	—	(336)	—	—	(336)	—
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(306)	(306)	(23)
Other comprehensive loss	—	—	—	—	—	—	(11)	—	(11)	—
Shares repurchased	—	—	(25)	(3,238)	—	—	—	—	(3,238)	—
Share-based compensation	1	—	—	—	3	—	—	—	3	—
Equity transactions of MPLX	—	—	—	—	3	(2)	—	(598)	(597)	—
Balance as of March 31, 2023	991	$ 10	(561)	$ (35,079)	$ 33,408	$ 28,528	$ (9)	$ 5,837	$ 32,695	$ 968
Net income	—	—	—	—	—	2,226	—	331	2,557	23
Dividends declared on common stock ($0.75 per share)	—	—	—	—	—	(312)	—	—	(312)	—
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(283)	(283)	(23)
Other comprehensive loss	—	—	—	—	—	—	(21)	—	(21)	—
Shares repurchased	—	—	(26)	(3,040)	—	—	—	—	(3,040)	—
Share-based compensation	1	—	—	—	3	—	—	1	4	—
Equity transactions of MPLX	—	—	—	—	—	—	—	—	—	—
Balance as of June 30, 2023	992	$ 10	(587)	$ (38,119)	$ 33,411	$ 30,442	$ (30)	$ 5,886	$ 31,600	$ 968

	MPC Stockholders' Equity									
	Common Stock		Treasury Stock							
(Shares in millions; amounts in millions of dollars)	Shares	Amount	Shares	Amount	Additional Paid-in Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Non-controlling Interests	Total Equity	Redeemable Non-controlling Interest
Balance as of December 31, 2021	984	$ 10	(405)	$ (19,904)	$ 33,262	$ 12,905	$ (67)	$ 6,410	$ 32,616	$ 965
Net income	—	—	—	—	—	845	—	306	1,151	21
Dividends declared on common stock ($0.58 per share)	—	—	—	—	—	(330)	—	—	(330)	—
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(290)	(290)	(21)
Other comprehensive loss	—	—	—	—	—	—	(7)	—	(7)	—
Shares repurchased	—	—	(37)	(2,807)	—	—	—	—	(2,807)	—
Share-based compensation	3	—	—	—	90	—	—	(1)	89	—
Equity transactions of MPLX	—	—	—	—	(25)	—	—	(63)	(88)	—
Balance as of March 31, 2022	987	$ 10	(442)	$ (22,711)	$ 33,327	$ 13,420	$ (74)	$ 6,362	$ 30,334	$ 965
Net income	—	—	—	—	—	5,873	—	323	6,196	21
Dividends declared on common stock ($0.58 per share)	—	—	—	—	—	(310)	—	—	(310)	—
Distributions to noncontrolling interests	—	—	—	—	—	—	—	(267)	(267)	(21)
Other comprehensive income	—	—	—	—	—	—	9	—	9	—
Shares repurchased	—	—	(34)	(3,285)	—	—	—	—	(3,285)	—
Share-based compensation	2	—	—	(4)	71	—	—	2	69	—
Equity transactions of MPLX	—	—	—	—	(20)	—	—	(22)	(42)	—
Balance as of June 30, 2022	989	$ 10	(476)	$ (26,000)	$ 33,378	$ 18,983	$ (65)	$ 6,398	$ 32,704	$ 965

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

Notes to Consolidated Financial Statements (Unaudited)

1. Description of the Business and Basis of Presentation

Description of the Business

We are a leading, integrated, downstream energy company headquartered in Findlay, Ohio. We operate the nation's largest refining system. We sell refined products to wholesale marketing customers domestically and internationally, to buyers on the spot market and to independent entrepreneurs who operate branded outlets. We also sell transportation fuel to consumers through direct dealer locations under long-term supply contracts. MPC’s midstream operations are primarily conducted through MPLX LP (“MPLX”), which owns and operates crude oil and light product transportation and logistics infrastructure as well as gathering, processing and fractionation assets. We own the general partner and a majority limited partner interest in MPLX. See Note 4.

Basis of Presentation

All significant intercompany transactions and accounts have been eliminated.

These interim consolidated financial statements are unaudited; however, in the opinion of our management, these statements reflect all adjustments necessary for a fair statement of the results for the periods reported. All such adjustments are of a normal, recurring nature unless otherwise disclosed. These interim consolidated financial statements, including the notes, have been prepared in accordance with the rules of the SEC applicable to interim period financial statements and do not include all of the information and disclosures required by GAAP for complete financial statements. Certain information and disclosures derived from our audited annual financial statements, prepared in accordance with GAAP, have been condensed or omitted from these interim financial statements.

These interim consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2022. The results of operations for the three and six months ended June 30, 2023 are not necessarily indicative of the results to be expected for the full year.

2. Accounting Standards

Not Yet Adopted

ASU 2023-01, Leases (Topic 842): Common Control Arrangements

In March 2023, the FASB issued an ASU to amend certain provisions of ASC 842 that apply to arrangements between related parties under common control. The ASU amends the accounting for the amortization period of leasehold improvements in common-control leases for all entities and requires certain disclosures when the lease term is shorter than the useful life of the asset. This ASU is effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. Early adoption is permitted. We do not expect the application of this ASU to have a material impact on our consolidated financial statements or financial disclosures.

3. Short-Term Investments

Investments Components

The components of investments were as follows:

	June 30, 2023						
(Millions of dollars)	Fair Value Level	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-term Investments
Available-for-sale debt securities							
Commercial paper	Level 2	$ 2,088	$ —	$ (1)	$ 2,087	$ 447	$ 1,640
Certificates of deposit and time deposits	Level 2	3,340	—	(1)	3,339	2,562	777
U.S. government securities	Level 1	1,965	—	(4)	1,961	309	1,652
Corporate notes and bonds	Level 2	40	—	—	40	—	40
Total available-for-sale debt securities		$ 7,433	$ —	$ (6)	$ 7,427	$ 3,318	$ 4,109
Cash					4,027	4,027	—
Total					$ 11,454	$ 7,345	$ 4,109

(Millions of dollars)	Fair Value Level	Amortized Cost	Unrealized Gains	Unrealized Losses	Fair Value	Cash and Cash Equivalents	Short-term Investments
	December 31, 2022						
Available-for-sale debt securities							
Commercial paper	Level 2	$ 3,074	$ —	$ (1)	$ 3,073	$ 1,106	$ 1,967
Certificates of deposit and time deposits	Level 2	2,093	—	—	2,093	1,500	593
U.S. government securities	Level 1	1,071	—	—	1,071	498	573
Corporate notes and bonds	Level 2	66	—	—	66	54	12
Total available-for-sale debt securities		$ 6,304	$ —	$ (1)	$ 6,303	$ 3,158	$ 3,145
Cash					5,467	5,467	—
Total					$ 11,770	$ 8,625	$ 3,145

Our investment policy includes concentration limits and credit rating requirements which limits our investments to high quality, short term and highly liquid securities.

Realized gains/losses were not material. All of our available-for-sale debt securities held as of June 30, 2023 mature within one year or less or are readily available for use.

4. Master Limited Partnership

We own the general partner and a majority limited partner interest in MPLX, which owns and operates crude oil and light product transportation and logistics infrastructure as well as gathering, processing and fractionation assets. We control MPLX through our ownership of the general partner interest and, as of June 30, 2023, we owned approximately 65 percent of the outstanding MPLX common units.

Unit Repurchase Program

In November 2020, MPLX announced the board authorization of a unit repurchase program for the repurchase of up to $1.0 billion of MPLX's outstanding common units held by the public, which was utilized in 2022. On August 2, 2022, MPLX announced its board of directors approved a $1.0 billion unit repurchase authorization. The unit repurchase authorizations have no expiration date. MPLX may utilize various methods to effect the repurchases, which could include open market repurchases, negotiated block transactions, accelerated unit repurchases, tender offers or open market solicitations for units, some of which may be effected through Rule 10b5-1 plans. The timing and amount of future repurchases, if any, will depend upon several factors, including market and business conditions, and such repurchases may be discontinued at any time.

Total unit repurchases were as follows for the respective periods:

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions, except per share data)	2023	2022	2023	2022
Number of common units repurchased	—	1	—	4
Cash paid for common units repurchased	$ —	$ 35	$ —	$ 135
Average cost per unit	$ —	$ 33.74	$ —	$ 32.48

As of June 30, 2023, MPLX had approximately $846 million remaining under its unit repurchase authorization.

Redemption of the Series B Preferred Units

On February 15, 2023, MPLX exercised its right to redeem all of its 600,000 outstanding preferred units (the "Series B preferred units"). MPLX paid unitholders the Series B preferred unit redemption price of $1,000 per unit. The final semi-annual distribution on the Series B preferred units was paid on February 15, 2023 in the usual manner.

The excess of the total redemption price of $600 million paid to Series B preferred unitholders over the carrying value of the Series B preferred units on the redemption date resulted in a $2 million net reduction to retained earnings. The Series B preferred units were included in noncontrolling interest on our consolidated balance sheet at December 31, 2022.

Agreements

We have various long-term, fee-based commercial agreements with MPLX. Under these agreements, MPLX provides transportation, storage, distribution and marketing services to us. With certain exceptions, these agreements generally contain minimum volume commitments. These transactions are eliminated in consolidation but are reflected as intersegment transactions between our Refining & Marketing and Midstream segments. We also have agreements with MPLX that establish fees for operational and management services provided between us and MPLX and for executive management services and certain general and administrative services provided by us to MPLX. These transactions are eliminated in consolidation but are reflected as intersegment transactions between corporate and our Midstream segment.

Noncontrolling Interest

As a result of equity transactions of MPLX, we are required to adjust non-controlling interest and additional paid-in capital. Changes in MPC's additional paid-in capital resulting from changes in its ownership interests in MPLX were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Increase (decrease) due to change in ownership	$ —	$ (13)	$ 1	$ (50)
Tax impact	—	(7)	2	5
Increase (decrease) in MPC's additional paid-in capital, net of tax	$ —	$ (20)	$ 3	$ (45)

5. Variable Interest Entities

Consolidated VIE

We control MPLX through our ownership of its general partner. MPLX is a VIE because the limited partners do not have substantive kick-out or participating rights over the general partner. We are the primary beneficiary of MPLX because in addition to our significant economic interest, we also have the ability, through our ownership of the general partner, to control the decisions that most significantly impact MPLX. We therefore consolidate MPLX and record a noncontrolling interest for the interest owned by the public. We also record a redeemable noncontrolling interest related to MPLX's Series A preferred units.

The creditors of MPLX do not have recourse to MPC's general credit through guarantees or other financial arrangements, except as noted. MPC has effectively guaranteed certain indebtedness of LOOP LLC ("LOOP") and LOCAP LLC ("LOCAP"), in which MPLX holds an interest. See Note 23 for more information. The assets of MPLX can only be used to settle its own obligations and its creditors have no recourse to our assets, except as noted earlier.

The following table presents balance sheet information for the assets and liabilities of MPLX, which are included in our consolidated balance sheets.

(Millions of dollars)	June 30, 2023	December 31, 2022
Assets		
Cash and cash equivalents	$ 755	$ 238
Receivables, less allowance for doubtful accounts	728	747
Inventories	146	148
Other current assets	52	56
Equity method investments	4,124	4,095
Property, plant and equipment, net	18,692	18,848
Goodwill	7,645	7,645
Right of use assets	281	283
Other noncurrent assets	1,611	1,664
Liabilities		
Accounts payable	$ 588	$ 664
Payroll and benefits payable	—	4
Accrued taxes	82	67
Debt due within one year	1	988
Operating lease liabilities	49	46
Other current liabilities	331	338
Long-term debt	20,405	18,808
Deferred income taxes	13	13
Long-term operating lease liabilities	228	230
Deferred credits and other liabilities	385	366

6. Related Party Transactions

Transactions with related parties were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Sales to related parties	$ 263	$ 21	$ 452	$ 40
Purchases from related parties	480	297	791	579

Sales to related parties, which are included in sales and other operating revenues, consist primarily of refined product sales and renewable feedstock sales to certain of our equity affiliates.

Purchases from related parties are included in cost of revenues. We obtain utilities, transportation services and purchase ethanol and renewable fuels from certain of our equity affiliates.

7. Earnings Per Share

We compute basic earnings per share by dividing net income attributable to MPC less income allocated to participating securities by the weighted average number of shares of common stock outstanding. Since MPC grants certain incentive compensation awards to employees and non-employee directors that are considered to be participating securities, we have calculated our earnings per share using the two-class method. Diluted income per share assumes exercise of certain share-based compensation awards, provided the effect is not anti-dilutive.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions, except per share data)	2023	2022	2023	2022
Net income	$ 2,580	$ 6,217	$ 5,664	$ 7,389
Net income attributable to noncontrolling interest	(354)	(344)	(714)	(671)
Net income allocated to participating securities	(1)	(3)	(3)	(3)
Redemption of preferred units	—	—	(2)	—
Income available to common stockholders	$ 2,225	$ 5,870	$ 4,945	$ 6,715
Weighted average common shares outstanding:				
Basic	417	532	430	549
Effect of dilutive securities	2	4	2	4
Diluted	419	536	432	553
Income available to common stockholders per share:				
Basic:				
Net income attributable to MPC per share	$ 5.34	$ 11.03	$ 11.49	$ 12.24
Diluted:				
Net income attributable to MPC per share	$ 5.32	$ 10.95	$ 11.44	$ 12.15

The following table summarizes the shares that were anti-dilutive and, therefore, were excluded from the diluted share calculation.

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions)	2023	2022	2023	2022
Shares issuable under share-based compensation plans	—	—	—	—

8. Equity

In May 2021, MPC announced the authorization of a share repurchase program of up to $7.1 billion. Subsequently, in February 2022, MPC announced a $5.0 billion share repurchase authorization. Both these authorizations were utilized in 2022.

In August 2022, MPC announced a $5.0 billion share repurchase authorization and announced additional $5.0 billion share repurchase authorizations in both January 2023 and in May 2023. As of June 30, 2023, $7.12 billion remained available for repurchase under these authorizations. These authorizations have no expiration date.

We may utilize various methods to effect the repurchases, which could include open market repurchases, negotiated block transactions, tender offers, accelerated share repurchases or open market solicitations for shares, some of which may be effected through Rule 10b5-1 plans. The timing and amount of future repurchases, if any, will depend upon several factors, including market and business conditions, and such repurchases may be suspended or discontinued at any time.

Total share repurchases were as follows for the respective periods:

(In millions, except per share data)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Number of shares repurchased	26	34	51	71
Cash paid for shares repurchased	$ 3,068	$ 3,331	$ 6,248	$ 6,177
Average cost per share[(a)]	$ 117.62	$ 95.46	$ 122.07	$ 85.31

(a) The average cost per share for the 2023 period includes a 1% excise tax on share repurchases resulting from the Inflation Reduction Act of 2022.

The number of shares repurchased shown above and the amount remaining available under the share repurchase authorizations reflect the repurchase of 540,000 common shares for $63 million that were transacted in the second quarter of 2023 and settled in the third quarter of 2023.

9. Segment Information

We have two reportable segments: Refining & Marketing and Midstream. Each of these segments is organized and managed based upon the nature of the products and services it offers.

- Refining & Marketing – refines crude oil and other feedstocks, including renewable feedstocks, at our refineries in the Gulf Coast, Mid-Continent and West Coast regions of the United States, purchases refined products and ethanol for resale and distributes refined products, including renewable diesel, through transportation, storage, distribution and marketing services provided largely by our Midstream segment. We sell refined products to wholesale marketing customers domestically and internationally, to buyers on the spot market, to independent entrepreneurs who operate primarily Marathon® branded outlets and through long-term fuel supply contracts with direct dealers who operate locations mainly under the ARCO® brand.
- Midstream – gathers, transports, stores and distributes crude oil, refined products, including renewable diesel, and other hydrocarbon-based products principally for the Refining & Marketing segment via refining logistics assets, pipelines, terminals, towboats and barges; gathers, processes and transports natural gas; and transports, fractionates, stores and markets NGLs. The Midstream segment primarily reflects the results of MPLX.

Our chief operating decision maker (“CODM”) evaluates the performance of our segments using segment adjusted EBITDA. Our CODM is the chief executive officer. Amounts included in income before income taxes and excluded from segment adjusted EBITDA include: (i) depreciation and amortization; (ii) net interest and other financial costs; (iii) turnaround expenses and (iv) other adjustments as deemed necessary. These items are either: (i) believed to be non-recurring in nature; (ii) not believed to be allocable or controlled by the segment; or (iii) not tied to the operational performance of the segment. Assets by segment are not a measure used to assess the performance of the company by the CODM and thus are not reported in our disclosures.

(Millions of dollars)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Segment adjusted EBITDA for reportable segments				
Refining & Marketing	$ 3,163	$ 7,760	$ 7,016	$ 9,134
Midstream	1,532	1,456	3,062	2,859
Total reportable segments	$ 4,695	$ 9,216	$ 10,078	$ 11,993
Reconciliation of segment adjusted EBITDA for reportable segments to income before income taxes				
Total reportable segments	$ 4,695	$ 9,216	$ 10,078	$ 11,993
Corporate	(164)	(156)	(329)	(294)
Refining planned turnaround costs	(392)	(151)	(749)	(296)
Renewable volume obligation requirements	—	238	—	238
Litigation	—	—	—	27
Depreciation and amortization	(834)	(819)	(1,634)	(1,624)
Net interest and other financial costs	(142)	(312)	(296)	(574)
Income before income taxes	$ 3,163	$ 8,016	$ 7,070	$ 9,470

(Millions of dollars)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Sales and other operating revenues				
Refining & Marketing				
Revenues from external customers[a]	$ 35,167	$ 52,300	$ 68,830	$ 89,092
Intersegment revenues	21	47	48	83
Refining & Marketing segment revenues	35,188	52,347	68,878	89,175
Midstream				
Revenues from external customers[a]	1,176	1,495	2,377	2,761
Intersegment revenues	1,347	1,308	2,709	2,555
Midstream segment revenues	2,523	2,803	5,086	5,316
Total segment revenues	37,711	55,150	73,964	94,491
Less: intersegment revenues	1,368	1,355	2,757	2,638
Consolidated sales and other operating revenues[a]	$ 36,343	$ 53,795	$ 71,207	$ 91,853

(a) Includes related party sales. See Note 6 for additional information.

(Millions of dollars)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Income (loss) from equity method investments				
Refining & Marketing	$ 17	$ 6	$ (19)	$ 18
Midstream	182	141	351	271
Corporate	—	—	—	—
Consolidated income from equity method investments	$ 199	$ 147	$ 332	$ 289
Depreciation and amortization				
Refining & Marketing	$ 484	$ 475	$ 948	$ 936
Midstream	331	330	648	661
Corporate	19	14	38	27
Consolidated depreciation and amortization	$ 834	$ 819	$ 1,634	$ 1,624
Capital expenditures				
Refining & Marketing	$ 243	$ 315	$ 664	$ 559
Midstream	273	222	514	505
Segment capital expenditures and investments	516	537	1,178	1,064
Less investments in equity method investees	89	48	296	160
Plus:				
Corporate	33	15	40	38
Capitalized interest	13	25	34	48
Consolidated capital expenditures[a]	$ 473	$ 529	$ 956	$ 990

[a] Includes changes in capital expenditure accruals. See Note 19 for a reconciliation of total capital expenditures to additions to property, plant and equipment for the six months ended June 30, 2023 and 2022 as reported in the consolidated statements of cash flows.

10. Net Interest and Other Financial Costs

Net interest and other financial costs were as follows:

(Millions of dollars)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Interest income	$ (119)	$ (18)	$ (240)	$ (23)
Interest expense	329	324	663	634
Interest capitalized	(13)	(25)	(36)	(48)
Pension and other postretirement non-service costs[a]	(25)	32	(48)	11
Loss on extinguishment of debt	—	—	9	—
Investments - net premium (discount) amortization	(31)	(5)	(59)	(6)
Other financial costs	1	4	7	6
Net interest and other financial costs	$ 142	$ 312	$ 296	$ 574

[a] See Note 22.

11. Income Taxes

We recorded a combined federal, state and foreign income tax provision of $583 million and $1.41 billion for the three and six months ended June 30, 2023, respectively, which was lower than the U.S. statutory rate primarily due to net income attributable to noncontrolling interests, a benefit related to foreign derived intangible income, offset by state taxes.

We recorded a combined federal, state and foreign income tax provision of $1.80 billion and $2.08 billion for the three and six months ended June 30, 2022, respectively, which was higher than the U.S. statutory rate primarily due to state taxes offset by net income attributable to noncontrolling interests.

12. Inventories

(Millions of dollars)	June 30, 2023	December 31, 2022
Crude oil	$ 3,279	$ 3,047
Refined products	5,254	4,748
Materials and supplies	1,003	1,032
Total	$ 9,536	$ 8,827

Inventories are carried at the lower of cost or market value. Costs of crude oil and refined products are aggregated on a consolidated basis for purposes of assessing whether the LIFO cost basis of these inventories may have to be written down to market values.

13. Equity Method Investments

LF Bioenergy Acquisition

On March 8, 2023, MPC announced the acquisition of a 49.9 percent interest in LF Bioenergy, an emerging producer of renewable natural gas ("RNG") in the U.S., for approximately $56 million, which included funding for on-going operations and project development. LF Bioenergy has been focused on developing and growing a portfolio of dairy farm-based, low carbon intensity RNG projects.

LF Bioenergy is a VIE since it is unable to fund its operations without financial support from its equity owners. We are not the primary beneficiary of this VIE because we do not have the ability to control the activities that significantly influence the economic outcomes of the entity and, therefore, do not consolidate the entity. MPC accounts for our ownership interest in LF Bioenergy as an equity method investment.

Watson Cogeneration Company

On June 1, 2022, MPC purchased the remaining 49 percent interest in Watson Cogeneration Company from NRG Energy, Inc. for approximately $59 million. This entity is now consolidated and included in our consolidated results. It was previously accounted for as an equity method investment.

The excess of the $62 million fair value over the $25 million book value of our 51 percent ownership interest in Watson Cogeneration Company resulted in a $37 million gain, which is included in the net gain on disposal of assets line of the accompanying consolidated statements of income.

14. Property, Plant and Equipment (PP&E)

	June 30, 2023			December 31, 2022		
(Millions of dollars)	Gross PP&E	Accumulated Depreciation	Net PP&E	Gross PP&E	Accumulated Depreciation	Net PP&E
Refining & Marketing	$ 32,712	$ 17,576	$ 15,136	$ 32,292	$ 16,745	$ 15,547
Midstream	28,043	8,689	19,354	27,659	8,118	19,541
Corporate	1,589	1,020	569	1,550	981	569
Total	$ 62,344	$ 27,285	$ 35,059	$ 61,501	$ 25,844	$ 35,657

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15. Fair Value Measurements

Fair Values—Recurring

The following tables present assets and liabilities accounted for at fair value on a recurring basis as of June 30, 2023 and December 31, 2022 by fair value hierarchy level. We have elected to offset the fair value amounts recognized for multiple derivative contracts executed with the same counterparty, including any related cash collateral as shown below; however, fair value amounts by hierarchy level are presented on a gross basis in the following tables.

	June 30, 2023					
	Fair Value Hierarchy					
(Millions of dollars)	Level 1	Level 2	Level 3	Netting and Collateral[(a)]	Net Carrying Value on Balance Sheet[(b)]	Collateral Pledged Not Offset
Assets:						
Commodity contracts	$ 338	$ 10	$ —	$ (330)	$ 18	$ 53
Liabilities:						
Commodity contracts	$ 361	$ —	$ —	$ (361)	$ —	$ —
Embedded derivatives in commodity contracts	—	—	53	—	53	—

	December 31, 2022					
	Fair Value Hierarchy					
(Millions of dollars)	Level 1	Level 2	Level 3	Netting and Collateral[(a)]	Net Carrying Value on Balance Sheet[(b)]	Collateral Pledged Not Offset
Assets:						
Commodity contracts	$ 310	$ —	$ —	$ (243)	$ 67	$ 100
Liabilities:						
Commodity contracts	$ 301	$ —	$ —	$ (301)	$ —	$ —
Embedded derivatives in commodity contracts	—	—	61	—	61	—

(a) Represents the impact of netting assets, liabilities and cash collateral when a legal right of offset exists. As of June 30, 2023, cash collateral of $31 million was netted with mark-to-market derivative liabilities. As of December 31, 2022, cash collateral of $58 million was netted with mark-to-market derivative liabilities.

(b) We have no derivative contracts which are subject to master netting arrangements reflected gross on the balance sheet.

Level 2 instruments include over-the-counter fixed swaps to mitigate the price risk from MPLX's sales of propane. The swap valuations are based on observable inputs in the form of forward prices based on Mont Belvieu propane forward spot prices and contain no significant unobservable inputs.

Level 3 instruments relate to an embedded derivative liability for a natural gas purchase commitment embedded in a keep-whole processing agreement. The fair value calculation for these Level 3 instruments at June 30, 2023 used significant unobservable inputs including: (1) NGL prices interpolated and extrapolated due to inactive markets ranging from $0.54 to $1.34 per gallon with a weighted average of $0.72 per gallon and (2) the probability of renewal of 100 percent for the five-year term of the natural gas purchase commitment and related keep-whole processing agreement. Increases or decreases in the fractionation spread result in an increase or decrease in the fair value of the embedded derivative liability.

The following is a reconciliation of the beginning and ending balances recorded for net liabilities classified as Level 3 in the fair value hierarchy.

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Beginning balance	$ 58	$ 99	$ 61	$ 108
Unrealized and realized gain included in net income	(3)	(4)	(3)	(8)
Settlements of derivative instruments	(2)	(3)	(5)	(8)
Ending balance	$ 53	$ 92	$ 53	$ 92
The amount of total gain for the period included in earnings attributable to the change in unrealized losses relating to liabilities still held at the end of period:	$ (3)	$ (3)	$ (3)	$ (8)

Fair Values – Reported

We believe the carrying value of our other financial instruments, including cash and cash equivalents, receivables, accounts payable and certain accrued liabilities, approximate fair value. Our fair value assessment incorporates a variety of considerations, including the short-term duration of the instruments and the expected insignificance of bad debt expense, which includes an evaluation of counterparty credit risk. The borrowings under our revolving credit facilities, which include variable interest rates, approximate fair value. The fair value of our long-term debt is based on prices from recent trade activity and is categorized in level 3 of the fair value hierarchy. The carrying and fair values of our debt were approximately $26.9 billion and $24.5 billion at June 30, 2023, respectively, and approximately $26.3 billion and $24.0 billion at December 31, 2022, respectively. These carrying and fair values of our debt exclude the unamortized issuance costs which are netted against our total debt.

16. Derivatives

For further information regarding the fair value measurement of derivative instruments, including any effect of master netting agreements or collateral, see Note 15. We do not designate any of our commodity derivative instruments as hedges for accounting purposes.

Derivatives that are not designated as accounting hedges may include commodity derivatives used to hedge price risk on (1) inventories, (2) fixed price sales of refined products, (3) the acquisition of foreign-sourced crude oil, (4) the acquisition of ethanol for blending with refined products, (5) the sale of NGLs, (6) the purchase of natural gas, (7) the purchase of soybean oil and (8) the sale of propane.

The following table presents the fair value of derivative instruments as of June 30, 2023 and December 31, 2022 and the line items in the consolidated balance sheets in which the fair values are reflected. The fair value amounts below are presented on a gross basis and do not reflect the netting of asset and liability positions permitted under the terms of our master netting arrangements including cash collateral on deposit with, or received from, brokers. We offset the recognized fair value amounts for multiple derivative instruments executed with the same counterparty in our financial statements when a legal right of offset exists. As a result, the asset and liability amounts below will not agree with the amounts presented in our consolidated balance sheets.

(Millions of dollars)	June 30, 2023		December 31, 2022	
Balance Sheet Location	Asset	Liability	Asset	Liability
Commodity derivatives				
Other current assets	$ 348	$ 361	$ 310	$ 301
Other current liabilities[(a)]	—	7	—	10
Deferred credits and other liabilities[(a)]	—	46	—	51

(a) Includes embedded derivatives.

The table below summarizes open commodity derivative contracts for crude oil, refined products, blending products, soybean oil and propane as of June 30, 2023.

		Position	
(Units in thousands of barrels)	Percentage of contracts that expire next quarter	Long	Short
Exchange-traded[(a)]			
Crude oil	53.1%	74,081	79,120
Refined products	86.9%	15,695	14,661
Blending products	49.6%	1,958	4,433
Soybean oil	76.6%	4,610	5,150
Over-the-counter			
Propane	50.5%	—	809

(a) Included in exchange-traded are spread contracts in thousands of barrels: Crude oil - 20,150 long and 20,500 short; Refined products - 2,449 long and 995 short. There are no spread contracts for blending products or soybean oil.

The following table summarizes the effect of all commodity derivative instruments in our consolidated statements of income:

	Gain (Loss)			
(Millions of dollars)	Three Months Ended June 30,		Six Months Ended June 30,	
Income Statement Location	2023	2022	2023	2022
Sales and other operating revenues	$ 8	$ —	$ 10	$ —
Cost of revenues	50	17	111	(325)
Other income	—	(1)	1	1
Total	$ 58	$ 16	$ 122	$ (324)

17. Debt

Our outstanding borrowings at June 30, 2023 and December 31, 2022 consisted of the following:

(Millions of dollars)	June 30, 2023	December 31, 2022
Marathon Petroleum Corporation:		
Senior notes	$ 6,449	$ 6,449
Notes payable	1	1
Finance lease obligations	493	522
Total	6,943	6,972
MPLX LP:		
Senior notes	20,700	20,100
Finance lease obligations	7	8
Total	20,707	20,108
Total debt	27,650	27,080
Unamortized debt issuance costs	(150)	(142)
Unamortized discount, net of unamortized premium	(217)	(238)
Amounts due within one year	(72)	(1,066)
Total long-term debt due after one year	$ 27,211	$ 25,634

MPLX Senior Notes

On February 9, 2023, MPLX issued $1.6 billion aggregate principal amount of senior notes in a public offering, consisting of $1.1 billion aggregate principal amount of 5.00 percent senior notes due March 2033 and $500 million aggregate principal amount of 5.65 percent senior notes due March 2053. On February 15, 2023, MPLX used $600 million of the net proceeds to redeem all of its outstanding Series B preferred units. On March 13, 2023, MPLX used the remaining proceeds to redeem all of MPLX's and MarkWest's $1.0 billion aggregate principal amount of 4.50 percent senior notes due July 2023. The redemption resulted in a loss on extinguishment of debt of $9 million due to the immediate expense recognition of unamortized debt discount and issuance costs.

Available Capacity under our Credit Facilities as of June 30, 2023

(Millions of dollars)	Total Capacity	Outstanding Borrowings	Outstanding Letters of Credit	Available Capacity	Weighted Average Interest Rate	Expiration
MPC, excluding MPLX						
MPC bank revolving credit facility	$ 5,000	$ —	$ 1	$ 4,999	— %	July 2027
MPC trade receivables securitization facility[a]	100	—	100	—	—	September 2023
MPLX						
MPLX bank revolving credit facility	2,000	—	—	2,000	— %	July 2027

[a] The committed borrowing and letter of credit issuance capacity of the trade receivables securitization facility is $100 million. In addition, the facility allows for the issuance of letters of credit in excess of the committed capacity at the discretion of the issuing banks. As of June 30, 2023, letters of credit in the total amount of $386 million were issued and outstanding under the facility to secure contracts awarded by the Department of Energy to purchase crude oil from the Strategic Petroleum Reserve.

18. Revenue

The following table presents our revenues from external customers disaggregated by segment and product line.

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Refining & Marketing				
Refined products	$ 32,864	$ 48,864	$ 64,787	$ 82,457
Crude oil	1,875	2,976	3,205	5,865
Services and other	428	460	838	770
Total revenues from external customers	35,167	52,300	68,830	89,092
Midstream				
Refined products	377	698	797	1,195
Services and other	799	797	1,580	1,566
Total revenues from external customers	1,176	1,495	2,377	2,761
Sales and other operating revenues	$ 36,343	$ 53,795	$ 71,207	$ 91,853

We do not disclose information on the future performance obligations for any contract with expected duration of one year or less at inception. As of June 30, 2023, we do not have future performance obligations that are material to future periods.

Receivables

On the accompanying consolidated balance sheets, receivables, less allowance for doubtful accounts primarily consists of customer receivables. Significant, non-customer balances included in our receivables at June 30, 2023 include matching buy/sell receivables of $4.55 billion.

19. Supplemental Cash Flow Information

(Millions of dollars)	Six Months Ended June 30, 2023		Six Months Ended June 30, 2022	
Net cash provided by operating activities included:				
Interest paid (net of amounts capitalized)	$	584	$	519
Net income taxes paid to (received from) taxing authorities		1,400		1,123
Non-cash investing and financing activities:				
Book value of equity method investment[a]		—		25

[a] Represents the book value of MPC's equity method investment in Watson Cogeneration Company at June 1, 2022. See Note 13 for additional information.

The consolidated statements of cash flows exclude changes to the consolidated balance sheets that did not affect cash. The following is a reconciliation of additions to property, plant and equipment to total capital expenditures:

(Millions of dollars)	Six Months Ended June 30, 2023		Six Months Ended June 30, 2022	
Additions to property, plant and equipment per the consolidated statements of cash flows	$	938	$	993
Increase (decrease) in capital accruals		18		(3)
Total capital expenditures	$	956	$	990

20. Other Current Liabilities

The following summarizes the components of other current liabilities:

(Millions of dollars)	June 30, 2023		December 31, 2022	
Environmental credits liability	$	1,135	$	429
Accrued interest payable		325		315
Other current liabilities		587		423
Total other current liabilities	$	2,047	$	1,167

21. Accumulated Other Comprehensive Income (Loss)

The following table shows the changes in accumulated other comprehensive income (loss) by component. Amounts in parentheses indicate debits.

(Millions of dollars)	Pension Benefits		Other Benefits		Other		Total	
Balance as of December 31, 2021	$	(117)	$	49	$	1	$	(67)
Other comprehensive gain (loss) before reclassifications, net of tax of $(8)		(19)		3		(6)		(22)
Amounts reclassified from accumulated other comprehensive loss:								
Amortization of prior service credit[a]		(23)		(11)		—		(34)
Amortization of actuarial loss[a]		7		3		—		10
Settlement loss[a]		56		—		—		56
Tax effect		(10)		2		—		(8)
Other comprehensive income (loss)		11		(3)		(6)		2
Balance as of June 30, 2022	$	(106)	$	46	$	(5)	$	(65)

(Millions of dollars)	Pension Benefits	Other Benefits	Other	Total
Balance as of December 31, 2022	$ (163)	$ 165	$ —	$ 2
Other comprehensive gain (loss) before reclassifications, net of tax of $0	(4)	3	(3)	(4)
Amounts reclassified from accumulated other comprehensive loss:				
Amortization of prior service credit[(a)]	(22)	(11)	—	(33)
Amortization of actuarial gain[(a)]	(3)	—	—	(3)
Settlement loss[(a)]	(2)	—	—	(2)
Tax effect	7	3	—	10
Other comprehensive loss	(24)	(5)	(3)	(32)
Balance as of June 30, 2023	$ (187)	$ 160	$ (3)	$ (30)

(a) These accumulated other comprehensive loss components are included in the computation of net periodic benefit cost. See Note 22.

22. Pension and Other Postretirement Benefits

The following summarizes the components of net periodic benefit costs:

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Pension Benefits				
Service cost	$ 48	$ 65	$ 97	$ 133
Interest cost	29	24	58	47
Expected return on plan assets	(42)	(37)	(84)	(78)
Amortization of prior service credit	(11)	(12)	(22)	(23)
Amortization of actuarial (gain) loss	(1)	3	(3)	7
Settlement loss	(2)	54	(2)	56
Net periodic pension benefit cost	$ 21	$ 97	$ 44	$ 142
Other Benefits				
Service cost	$ 5	$ 5	$ 10	$ 13
Interest cost	8	5	16	10
Amortization of prior service credit	(6)	(6)	(11)	(11)
Amortization of actuarial loss	—	1	—	3
Net periodic other benefit cost	$ 7	$ 5	$ 15	$ 15

The components of net periodic benefit cost other than the service cost component are included in net interest and other financial costs on the consolidated statements of income.

During the six months ended June 30, 2023, we made no contributions to our funded pension plans. Benefit payments related to unfunded pension and other postretirement benefit plans were $7 million and $27 million, respectively, during the six months ended June 30, 2023.

23. Commitments and Contingencies

We are the subject of, or a party to, a number of pending or threatened legal actions, contingencies and commitments involving a variety of matters, including laws and regulations relating to the environment. Some of these matters are discussed below. For matters for which we have not recorded a liability, we are unable to estimate a range of possible loss because the issues involved have not been fully developed through pleadings, discovery or court proceedings. However, the ultimate resolution of some of these contingencies could, individually or in the aggregate, be material.

Environmental Matters

We are subject to federal, state, local and foreign laws and regulations relating to the environment. These laws generally provide for control of pollutants released into the environment and require responsible parties to undertake remediation of hazardous waste disposal sites and certain other locations including presently or formerly owned or operated retail marketing sites. Penalties may be imposed for noncompliance.

At June 30, 2023 and December 31, 2022, accrued liabilities for remediation totaled $374 million and $387 million, respectively. It is not presently possible to estimate the ultimate amount of all remediation costs that might be incurred or the penalties, if any, that may be imposed. Receivables for recoverable costs from certain states, under programs to assist companies in clean-up efforts related to underground storage tanks at presently or formerly owned or operated retail marketing sites, were $5 million at both June 30, 2023 and December 31, 2022.

Governmental and other entities in various states have filed climate-related lawsuits against numerous energy companies, including MPC. The lawsuits allege damages as a result of climate change and the plaintiffs are seeking unspecified damages and abatement under various tort theories. We are currently subject to such proceedings in federal or state courts in California, Delaware, Maryland, Hawaii, Rhode Island, South Carolina and Oregon. Similar lawsuits may be filed in other jurisdictions. At this early stage, the ultimate outcome of these matters remains uncertain, and neither the likelihood of an unfavorable outcome nor the ultimate liability, if any, can be determined.

We are involved in a number of environmental enforcement matters arising in the ordinary course of business. While the outcome and impact on us cannot be predicted with certainty, management believes the resolution of these environmental matters will not, individually or collectively, have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Other Legal Proceedings

In July 2020, Tesoro High Plains Pipeline Company, LLC (“THPP”), a subsidiary of MPLX, received a Notification of Trespass Determination from the Bureau of Indian Affairs (“BIA”) relating to a portion of the Tesoro High Plains Pipeline that crosses the Fort Berthold Reservation in North Dakota. The notification demanded the immediate cessation of pipeline operations and assessed trespass damages of approximately $187 million. After subsequent appeal proceedings and in compliance with a new order issued by the BIA, in December 2020, THPP paid approximately $4 million in assessed trespass damages and ceased use of the portion of the pipeline that crosses the property at issue. In March 2021, the BIA issued an order purporting to vacate the BIA’s prior orders related to THPP’s alleged trespass and direct the Regional Director of the BIA to reconsider the issue of THPP’s alleged trespass and issue a new order. In April 2021, THPP filed a lawsuit in the District of North Dakota against the United States of America, the U.S. Department of the Interior and the BIA (together, the “U.S. Government Parties”) challenging the March 2021 order purporting to vacate all previous orders related to THPP’s alleged trespass. On February 8, 2022, the U.S. Government Parties filed their answer and counterclaims to THPP’s suit claiming THPP is in continued trespass with respect to the pipeline and seek disgorgement of pipeline profits from June 1, 2013 to present, removal of the pipeline and remediation. We intend to vigorously defend ourselves against these counterclaims.

We are also a party to a number of other lawsuits and other proceedings arising in the ordinary course of business. While the ultimate outcome and impact to us cannot be predicted with certainty, we believe that the resolution of these other lawsuits and proceedings will not, individually or collectively, have a material adverse effect on our consolidated financial position, results of operations or cash flows.

Guarantees

We have provided certain guarantees, direct and indirect, of the indebtedness of other companies. Under the terms of most of these guarantee arrangements, we would be required to perform should the guaranteed party fail to fulfill its obligations under the specified arrangements. In addition to these financial guarantees, we also have various performance guarantees related to specific agreements.

Guarantees related to indebtedness of equity method investees

LOOP and LOCAP

MPC and MPLX hold interests in an offshore oil port, LOOP, and MPLX holds an interest in a crude oil pipeline system, LOCAP. Both LOOP and LOCAP have secured various project financings with throughput and deficiency agreements. Under the agreements, MPC, as a shipper, is required to advance funds if the investees are unable to service their debt. Any such advances are considered prepayments of future transportation charges. The duration of the agreements varies but tend to follow the terms of the underlying debt, which extend through 2037. Our maximum potential undiscounted payments under these agreements for the debt principal totaled $171 million as of June 30, 2023.

Dakota Access Pipeline

MPLX holds a 9.19 percent indirect interest in a joint venture (“Dakota Access”) that owns and operates the Dakota Access Pipeline and Energy Transfer Crude Oil Pipeline projects, collectively referred to as the Bakken Pipeline system or DAPL. In 2020, the U.S. District Court for the District of Columbia (the “D.D.C.”) ordered the U.S. Army Corps of Engineers (“Army Corps”), which granted permits and an easement for the Bakken Pipeline system, to prepare an environmental impact statement (“EIS”) relating to an easement under Lake Oahe in North Dakota. The D.D.C. later vacated the easement. The Army Corps expects to release a draft EIS in 2023.

In May 2021, the D.D.C. denied a renewed request for an injunction to shut down the pipeline while the EIS is being prepared. In June 2021, the D.D.C. issued an order dismissing without prejudice the tribes' claims against the Dakota Access Pipeline. The litigation could be reopened or new litigation challenging the EIS, once completed, could be filed. The pipeline remains operational.

MPLX has entered into a Contingent Equity Contribution Agreement whereby it, along with the other joint venture owners in the Bakken Pipeline system, has agreed to make equity contributions to the joint venture upon certain events occurring to allow the entities that own and operate the Bakken Pipeline system to satisfy their senior note payment obligations. The senior notes were issued to repay amounts owed by the pipeline companies to fund the cost of construction of the Bakken Pipeline system. If the pipeline were temporarily shut down, MPLX would have to contribute its 9.19 percent pro rata share of funds required to pay interest accruing on the notes and any portion of the principal that matures while the pipeline is shutdown. MPLX also expects to contribute its 9.19 percent pro rata share of any costs to remediate any deficiencies to reinstate the permit and/or return the pipeline into operation. If the vacatur of the easement permit results in a permanent shutdown of the pipeline, MPLX would have to contribute its 9.19 percent pro rata share of the cost to redeem the bonds (including the 1 percent redemption premium required pursuant to the indenture governing the notes) and any accrued and unpaid interest. As of June 30, 2023, our maximum potential undiscounted payments under the Contingent Equity Contribution Agreement were approximately $170 million.

Crowley Blue Water Partners LLC

In connection with our 50 percent indirect interest in Crowley Blue Water Partners LLC, we have agreed to provide a conditional guarantee of up to 50 percent of its outstanding debt balance in the event there is no charter agreement in place with an investment grade customer for the entity's three vessels as well as other financial support in certain circumstances. As of June 30, 2023, our maximum potential undiscounted payments under this arrangement were $97 million.

Other guarantees

We have entered into other guarantees with maximum potential undiscounted payments totaling $124 million as of June 30, 2023, which primarily consist of a commitment to contribute cash to an equity method investee for certain catastrophic events in lieu of procuring insurance coverage, a commitment to fund a share of the bonds issued by a government entity for construction of public utilities in the event that other industrial users of the facility default on their utility payments, a commitment to pay a termination fee on a supply agreement if terminated during the initial term, and leases of assets containing general lease indemnities and guaranteed residual values.

Contractual Commitments and Contingencies

Certain natural gas processing and gathering arrangements require us to construct natural gas processing plants, natural gas gathering pipelines and NGL pipelines and contain certain fees and charges if specified construction milestones are not achieved for reasons other than force majeure. In certain cases, certain producer customers may have the right to cancel the processing arrangements with us if there are significant delays that are not due to force majeure.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

This section should also be read in conjunction with the unaudited consolidated financial statements and accompanying footnotes included under Item 1. Financial Statements and in conjunction with our Annual Report on Form 10-K for the year ended December 31, 2022.

DISCLOSURES REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, particularly Management's Discussion and Analysis of Financial Condition and Results of Operations and Quantitative and Qualitative Disclosures about Market Risk, includes forward-looking statements that are subject to risks, contingencies or uncertainties. You can identify forward-looking statements by words such as "anticipate," "believe," "commitment," "could," "design," "estimate," "expect," "forecast," "goal," "guidance," "intend," "may," "objective," "opportunity," "outlook," "plan," "policy," "position," "potential," "predict," "priority," "project," "prospective," "pursue," "seek," "should," "strategy," "target," "will," "would" or other similar expressions that convey the uncertainty of future events or outcomes.

Forward-looking statements include, among other things, statements regarding:

- future financial and operating results;
- environmental, social and governance ("ESG") plans and goals, including those related to greenhouse gas emissions, diversity and inclusion and ESG reporting;
- future levels of capital, environmental or maintenance expenditures, general and administrative and other expenses;
- the success or timing of completion of ongoing or anticipated capital or maintenance projects;
- business strategies, growth opportunities and expected investments;
- consumer demand for refined products, natural gas, renewables and NGLs;
- the timing, amount and form of any future capital return transactions at MPC or MPLX; and
- the anticipated effects of actions of third parties such as competitors, activist investors, federal, foreign, state or local regulatory authorities, or plaintiffs in litigation.

Our forward-looking statements are not guarantees of future performance, and you should not rely unduly on them, as they involve risks, uncertainties and assumptions that we cannot predict. Forward-looking and other statements regarding our ESG plans and goals are not an indication that these statements are material to investors or required to be disclosed in our filings with the SEC. In addition, historical, current, and forward-looking ESG-related statements may be based on standards for measuring progress that are still developing, internal controls and processes that continue to evolve, and assumptions that are subject to change in the future. Material differences between actual results and any future performance suggested in our forward-looking statements could result from a variety of factors, including the following:

- general economic, political or regulatory developments, including inflation, interest rates, changes in governmental policies relating to refined petroleum products, crude oil, natural gas, NGLs or renewables, or taxation;
- the regional, national and worldwide availability and pricing of refined products, crude oil, natural gas, renewables, NGLs and other feedstocks;
- disruptions in credit markets or changes to credit ratings;
- the adequacy of capital resources and liquidity, including availability, timing and amounts of free cash flow necessary to execute business plans and to effect any share repurchases or to maintain or increase the dividend;
- the potential effects of judicial or other proceedings on the business, financial condition, results of operations and cash flows;
- the timing and extent of changes in commodity prices and demand for crude oil, refined products, feedstocks or other hydrocarbon-based products, or renewables;
- volatility in or degradation of general economic, market, industry or business conditions as a result of the COVID-19 pandemic, other infectious disease outbreaks, natural hazards, extreme weather events, the military conflict between Russia and Ukraine, other conflicts, inflation, rising interest rates or otherwise;
- compliance with federal and state environmental, economic, health and safety, energy and other policies and regulations and enforcement actions initiated thereunder;
- adverse market conditions or other risks affecting MPLX;
- refining industry overcapacity or under capacity;
- foreign imports and exports of crude oil, refined products, natural gas and NGLs;
- changes in producer customers' drilling plans or in volumes of throughput of crude oil, natural gas, NGLs, refined products, other hydrocarbon-based products or renewables;
- non-payment or non-performance by our customers;
- changes in the cost or availability of third-party vessels, pipelines, railcars and other means of transportation for crude oil, natural gas, NGLs, feedstocks, refined products and renewables;
- the price, availability and acceptance of alternative fuels and alternative-fuel vehicles and laws mandating such fuels or vehicles;

- political and economic conditions in nations that consume refined products, natural gas, renewables and NGLs, including the United States and Mexico, and in crude oil producing regions, including the Middle East, Russia, Africa, Canada and South America;
- actions taken by our competitors, including pricing adjustments, the expansion and retirement of refining capacity and the expansion and retirement of pipeline capacity, processing, fractionation and treating facilities in response to market conditions;
- completion of pipeline projects within the United States;
- changes in fuel and utility costs for our facilities;
- accidents or other unscheduled shutdowns affecting our refineries, machinery, pipelines, processing, fractionation and treating facilities or equipment, means of transportation, or those of our suppliers or customers;
- acts of war, terrorism or civil unrest that could impair our ability to produce refined products, receive feedstocks or to gather, process, fractionate or transport crude oil, natural gas, NGLs, refined products or renewables;
- political pressure and influence of environmental groups and other stakeholders upon policies and decisions related to the production, gathering, refining, processing, fractionation, transportation and marketing of crude oil or other feedstocks, refined products, natural gas, NGLs, other hydrocarbon-based products or renewables;
- labor and material shortages;
- our ability to successfully achieve our ESG goals and targets within the expected timeframe, if at all;
- the costs, disruption and diversion of management's attention associated with campaigns commenced by activist investors;
- personnel changes; and
- the imposition of windfall profit taxes or maximum refining margin penalties on companies operating in the energy industry in California or other jurisdictions.

For additional risk factors affecting our business, see the risk factors described in our Annual Report on Form 10-K for the year ended December 31, 2022. We undertake no obligation to update any forward-looking statements except to the extent required by applicable law.

EXECUTIVE SUMMARY

Business Update

Our results through the first six months of 2023 as compared to the first six months of 2022, were unfavorably impacted by market prices, however, the demand environment in which our business operates remains strong. Supply has remained constrained for a variety of reasons, including, but not limited to, effects from refinery closures and disruptions in the crude oil and petroleum-based products markets resulting from the Russia-Ukraine conflict. We are unable to predict the potential effects that the continuance or escalation of the military conflict between Russia and Ukraine, and related sanctions or market disruptions, may have on our financial position and results. It remains uncertain how long these conditions may last or how severe they may become.

In March 2023, the California legislature adopted Senate Bill No. 2 (such statute, together with any regulations contemplated or issued thereunder, SBx1-2), which authorizes the California Energy Commission ("CEC") to establish a "maximum gross gasoline refining margin" with respect to certain of our refining activities in California, as well as establish fees for refiners for exceeding this margin. The law further expands on existing reporting requirements for refiners to the CEC. It is uncertain whether, or when, the CEC will establish a maximum gross gasoline refining margin and impose associated fees. We will evaluate the impact that SBx1-2 and any associated forthcoming CEC regulations may have on our current or anticipated future operations in California and results of operations when the regulations have been promulgated.

Strategic Updates

South Texas Gateway Terminal LLC

On June 15, 2023, MPC agreed to sell its 25 percent interest in South Texas Gateway Terminal LLC ("South Texas Gateway") to an affiliate of Gibson Energy Inc. ("Gibson Energy"). Pursuant to the purchase agreement, Gibson Energy agreed to pay $1.1 billion in cash, subject to closing adjustments, to acquire 100 percent of the membership interests of South Texas Gateway from MPC and its other members. South Texas Gateway owns an oil export facility in the U.S. Gulf Coast. The terminal is operated by a third party. The carrying value of MPC's 25 percent interest at June 30, 2023 was $167 million. The deal is expected to close in the third quarter.

LF Bioenergy Acquisition

On March 8, 2023, MPC announced the acquisition of a 49.9 percent equity interest in LF Bioenergy, an emerging producer of renewable natural gas ("RNG") in the U.S., for approximately $56 million, which included funding for on-going operations and project development. LF Bioenergy has been focused on developing and growing a portfolio of dairy farm-based, low carbon intensity RNG projects. Current projects are under various stages of development, with the first facility nearing completion and expected to be in service in the first half of 2023. LF Bioenergy's management and origination teams continue to expand the portfolio with additional sanctioned projects while progressing their existing pipeline of opportunities toward final investment decisions. As specific project milestones are achieved, MPC is expected to fund its share of capital expenditures to build out the portfolio.

Martinez Renewable Fuels Project Joint Venture

The Martinez Renewable Fuels facility reached full Phase I production capacity of 260 million gallons per year of renewable fuels during the first quarter of 2023. Pretreatment capabilities are expected to come online in the second half of 2023 and the facility is expected to be capable of producing 730 million gallons per year by the end of 2023.

South Texas Asset Repositioning ("STAR") Project

We completed the STAR project at our Galveston Bay refinery, which is expected to add 40 mbpd of incremental crude capacity and 17 mbpd of resid processing capacity.

Share Repurchase Authorization

On May 2, 2023, we announced that our board of directors approved an additional $5.0 billion share repurchase authorization in addition to the $5.0 billion share repurchase authorization announced on January 31, 2023. Future repurchases under these authorizations will depend on the macro environment, cash available after opportunities for capital investment and growth of the business and market conditions. The authorizations have no expiration date. As of June 30, 2023, MPC had $7.12 billion remaining under its share repurchase authorizations.

See Note 8 to the unaudited consolidated financial statements for further discussion of our share repurchase authorizations.

Results

Our CODM evaluates the performance of our segments using segment adjusted EBITDA. Amounts included in income before income taxes and excluded from segment adjusted EBITDA include: (i) depreciation and amortization; (ii) net interest and other financial costs; (iii) turnaround expenses and (iv) other adjustments as deemed necessary. These items are either: (i) believed to be non-recurring in nature; (ii) not believed to be allocable or controlled by the segment; or (iii) are not tied to the operational performance of the segment.

Select results are reflected in the following table.

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Segment adjusted EBITDA for reportable segments				
Refining & Marketing	$ 3,163	$ 7,760	$ 7,016	$ 9,134
Midstream	1,532	1,456	3,062	2,859
Total reportable segments	$ 4,695	$ 9,216	$ 10,078	$ 11,993
Reconciliation of segment adjusted EBITDA for reportable segments to income before income taxes				
Total reportable segments	$ 4,695	$ 9,216	$ 10,078	$ 11,993
Corporate	(164)	(156)	(329)	(294)
Refining planned turnaround costs	(392)	(151)	(749)	(296)
Renewable volume obligation requirements	—	238	—	238
Litigation	—	—	—	27
Depreciation and amortization	(834)	(819)	(1,634)	(1,624)
Net interest and other financial costs	(142)	(312)	(296)	(574)
Income before income taxes	$ 3,163	$ 8,016	$ 7,070	$ 9,470
Net income attributable to MPC per diluted share	$ 5.32	$ 10.95	$ 11.44	$ 12.15

Net income attributable to MPC was $2.23 billion, or $5.32 per diluted share, in the second quarter of 2023 compared to $5.87 billion, or $10.95 per diluted share, for the second quarter of 2022 and $4.95 billion, or $11.44 per diluted share, in the first six months of 2023 compared to $6.72 billion, or $12.15 per diluted share, in the first six months of 2022. The decreases in net income attributable to MPC were largely due to lower Refining & Marketing margins.

Refer to the Results of Operations section for a discussion of consolidated financial results and segment results for the second quarter of 2023 as compared to the second quarter of 2022 and the first six months of 2023 compared to the first six months of 2022.

MPLX

We owned approximately 647 million MPLX common units as of June 30, 2023, with a market value of $21.97 billion based on the June 30, 2023 closing price of $33.94 per common unit. On July 25, 2023, MPLX declared a quarterly cash distribution of $0.7750 per common unit payable on August 14, 2023, to unitholders of record on August 4, 2023. As a result, MPC's portion of this distribution is approximately $502 million.

We received limited partner distributions of $1.0 billion from MPLX in the six months ended June 30, 2023 and $913 million in the six months ended June 30, 2022.

During the six months ended June 30, 2023, no MPLX units were repurchased. As of June 30, 2023, approximately $846 million remained available under the authorization for future unit repurchases.

On February 9, 2023, MPLX issued $1.1 billion aggregate principal amount of 5.00 percent senior notes due 2033 and $500 million aggregate principal amount of 5.65 percent senior notes due 2053 in an underwritten public offering.

On February 15, 2023, MPLX redeemed all of its 600,000 outstanding Series B preferred units at the redemption price of $1,000 per unit. The semi-annual distribution due to Series B unitholders on February 15, 2023, was also paid on that date, in the usual manner. On March 13, 2023, MPLX redeemed all of MPLX's and MarkWest's $1.0 billion aggregate principal amount of 4.50 percent senior notes due July 2023 at par, plus accrued and unpaid interest.

See Note 4 to the unaudited consolidated financial statements for additional information on MPLX.

OVERVIEW OF SEGMENTS

Refining & Marketing

Refining & Marketing segment adjusted EBITDA depends largely on our refinery throughput, Refining & Marketing margin, refining operating costs and distribution costs.

Refining & Marketing margin is the difference between the prices of refined products sold and the costs of crude oil and other charge and blendstocks refined, including the costs to transport these inputs to our refineries and the costs of products purchased for resale. The crack spread is a measure of the difference between market prices for refined products and crude oil, commonly used by the industry as a proxy for the refining margin. Crack spreads can fluctuate significantly, particularly when prices of refined products do not move in the same direction as the cost of crude oil. As a performance benchmark and a comparison with other industry participants, we calculate Gulf Coast, Mid-Continent and West Coast crack spreads that we believe most closely track our operations and slate of products. The following are used for these crack spread calculations:

- The Gulf Coast crack spread uses three barrels of MEH crude producing two barrels of USGC CBOB gasoline and one barrel of USGC ULSD;
- The Mid-Continent crack spread uses three barrels of WTI crude producing two barrels of Chicago CBOB gasoline and one barrel of Chicago ULSD; and
- The West Coast crack spread uses three barrels of ANS crude producing two barrels of LA CARBOB and one barrel of LA CARB Diesel.

Our refineries can process significant amounts of sweet and sour crude oil, which typically can be purchased at a discount to crude oil referenced in our Gulf Coast, Mid-Continent and West Coast crack spreads. The amount of these discounts, which we refer to as the sweet differential and sour differential, can vary significantly, causing our Refining & Marketing margin to differ from blended crack spreads. In general, larger sweet and sour differentials will enhance our Refining & Marketing margin.

Future crude oil differentials will be dependent on a variety of market and economic factors, as well as U.S. energy policy.

The following table provides sensitivities showing an estimated change in annual Refining & Marketing segment adjusted EBITDA due to potential changes in market conditions.

(Millions of dollars)		
Blended crack spread sensitivity[(a)] *(per $1.00/barrel change)*	$	1,080
Sour differential sensitivity[(b)] *(per $1.00/barrel change)*		500
Sweet differential sensitivity[(c)] *(per $1.00/barrel change)*		500
Natural gas price sensitivity[(d)] *(per $1.00/MMBtu)*		310

(a) Crack spread based on 40 percent MEH, 40 percent WTI and 20 percent ANS with Gulf Coast, Mid-Continent and West Coast product pricing, respectively, and assumes all other differentials and pricing relationships remain unchanged.

(b) Sour crude oil basket consists of the following crudes: ANS, Argus Sour Crude Index, Maya and Western Canadian Select. We assume approximately 50 percent of the crude processed at our refineries in 2023 will be sour crude.

(c) Sweet crude oil basket consists of the following crudes: Bakken, Brent, MEH, WTI-Cushing and WTI-Midland. We assume approximately 50 percent of the crude processed at our refineries in 2023 will be sweet crude.

(d) This is consumption-based exposure for our Refining & Marketing segment and does not include the sales exposure for our Midstream segment.

In addition to the market changes indicated by the crack spreads, the sour differential and the sweet differential, our Refining & Marketing margin is impacted by factors such as:

- the selling prices realized for refined products;
- the types of crude oil and other charge and blendstocks processed;
- our refinery yields;
- the cost of products purchased for resale;
- the impact of commodity derivative instruments used to hedge price risk;
- the potential impact of lower of cost or market adjustments to inventories in periods of declining prices;
- the potential impact of LIFO charges due to changes in historic inventory levels; and
- the cost of purchasing RINs in the open market to comply with RFS2 requirements.

Refining & Marketing segment adjusted EBITDA is also affected by changes in refinery operating costs in addition to committed distribution costs. Changes in operating costs are primarily driven by the cost of energy used by our refineries, including purchased natural gas, and the level of maintenance costs. Distribution costs primarily include long-term agreements with MPLX, which as discussed below include minimum commitments to MPLX, and will negatively impact segment adjusted EBITDA in periods when throughput or sales are lower or refineries are idled.

We have various long-term, fee-based commercial agreements with MPLX. Under these agreements, MPLX, which is reported in our Midstream segment, provides transportation, storage, distribution and marketing services to our Refining & Marketing segment. Certain of these agreements include commitments for minimum quarterly throughput and distribution volumes of crude oil and refined products and minimum storage volumes of crude oil, refined products and other products. Certain other agreements include commitments to pay for 100 percent of available capacity for certain marine transportation and refining logistics assets.

Midstream

Our Midstream segment gathers, transports, stores and distributes crude oil, refined products, including renewable diesel, and other hydrocarbon-based products, principally for our Refining & Marketing segment. Additionally, the segment markets refined products. The profitability of our pipeline transportation operations primarily depends on tariff rates and the volumes shipped through the pipelines. The profitability of our marine operations primarily depends on the quantity and availability of our vessels and barges. The profitability of our light product terminal operations primarily depends on the throughput volumes at these terminals. The profitability of our fuels distribution services primarily depends on the sales volumes of certain refined products. The profitability of our refining logistics operations depends on the quantity and availability of our refining logistics assets. A majority of the crude oil and refined product shipments on our pipelines and marine vessels and the refined product throughput at our terminals serve our Refining & Marketing segment and our refining logistics assets and fuels distribution services are used solely by our Refining & Marketing segment. As discussed above in the Refining & Marketing section, MPLX, which is reported in our Midstream segment, has various long-term, fee-based commercial agreements related to services provided to our Refining & Marketing segment. Under these agreements, MPLX has received various commitments of minimum throughput, storage and distribution volumes as well as commitments to pay for all available capacity of certain assets. The volume of crude oil that we transport is directly affected by the supply of, and refiner demand for, crude oil in the markets served directly by our crude oil pipelines, terminals and marine operations. Key factors in this supply and demand balance are the production levels of crude oil by producers in various regions or fields, the availability and cost of alternative modes of transportation, the volumes of crude oil processed at refineries and refinery and transportation system maintenance levels. The volume of refined products that we transport, store, distribute and market is directly affected by the production levels of, and user demand for, refined products in the markets served by our refined product pipelines and marine operations. In most of our markets, demand for gasoline and distillate peaks during the summer driving season, which extends from May through September of each year, and declines during the fall and winter months. As with crude oil, other transportation alternatives and system maintenance levels influence refined product movements.

Our Midstream segment also gathers, processes and transports natural gas and transports, fractionates, stores and markets NGLs. NGL and natural gas prices are volatile and are impacted by changes in fundamental supply and demand, as well as market uncertainty, availability of NGL transportation and fractionation capacity and a variety of additional factors that are beyond our control. Our Midstream segment profitability is affected by prevailing commodity prices primarily as a result of processing or conditioning at our own or third-party processing plants, purchasing and selling or gathering and transporting volumes of natural gas at index-related prices and the cost of third-party transportation and fractionation services. To the extent that commodity prices influence the level of natural gas drilling by our producer customers, such prices also affect profitability.

RESULTS OF OPERATIONS

The following discussion includes comments and analysis relating to our results of operations. This discussion should be read in conjunction with Item 1. Financial Statements and is intended to provide investors with a reasonable basis for assessing our historical operations, but should not serve as the only criteria for predicting our future performance.

Consolidated Results of Operations

	Three Months Ended June 30,			Six Months Ended June 30,		
(Millions of dollars)	2023	2022	Variance	2023	2022	Variance
Revenues and other income:						
Sales and other operating revenues	$ 36,343	$ 53,795	$ (17,452)	$ 71,207	$ 91,853	$ (20,646)
Income from equity method investments	199	147	52	332	289	43
Net gain on disposal of assets	13	39	(26)	16	21	(5)
Other income	269	257	12	346	459	(113)
Total revenues and other income	36,824	54,238	(17,414)	71,901	92,622	(20,721)
Costs and expenses:						
Cost of revenues (excludes items below)	31,762	44,207	(12,445)	61,056	79,275	(18,219)
Depreciation and amortization	834	819	15	1,634	1,624	10
Selling, general and administrative expenses	704	694	10	1,395	1,297	98
Other taxes	219	190	29	450	382	68
Total costs and expenses	33,519	45,910	(12,391)	64,535	82,578	(18,043)
Income from operations	3,305	8,328	(5,023)	7,366	10,044	(2,678)
Net interest and other financial costs	142	312	(170)	296	574	(278)
Income before income taxes	3,163	8,016	(4,853)	7,070	9,470	(2,400)
Provision for income taxes	583	1,799	(1,216)	1,406	2,081	(675)
Net income	2,580	6,217	(3,637)	5,664	7,389	(1,725)
Less net income attributable to:						
Redeemable noncontrolling interest	23	21	2	46	42	4
Noncontrolling interests	331	323	8	668	629	39
Net income attributable to MPC	$ 2,226	$ 5,873	$ (3,647)	$ 4,950	$ 6,718	$ (1,768)

Second Quarter 2023 Compared to Second Quarter 2022

Net income attributable to MPC decreased $3.65 billion in the second quarter of 2023 compared to the second quarter of 2022 primarily due to lower Refining & Marketing margins in the second quarter of 2023.

Revenues and other income decreased $17.41 billion primarily due to:

- decreased sales and other operating revenues of $17.45 billion primarily due to decreased Refining & Marketing segment average refined product sales prices of $1.13 per gallon and decreased refined product sales volumes of 34 mbpd; and
- increased income from equity method investments of $52 million primarily due to increased income from Midstream equity affiliates.

Costs and expenses decreased $12.39 billion primarily due to decreased cost of revenues of $12.45 billion mainly due to lower crude oil costs, partially offset by insignificant items in selling, general and administrative expenses and other taxes.

Net interest and other financial costs decreased $170 million largely due to increased interest income and decreased pension non-service costs, partially offset by increased interest expense due to higher MPLX borrowings.

We recorded a combined federal, state and foreign income tax provision of $583 million for the three months ended June 30, 2023, which was lower than the U.S. statutory rate primarily due to net income attributable to noncontrolling interests, a benefit related to foreign derived intangible income, offset by state taxes. We recorded a combined federal, state and foreign income tax provision of $1.80 billion for the three months ended June 30, 2022, which was higher than the U.S. statutory rate primarily due to state taxes offset by net income attributable to noncontrolling interests.

Six Months Ended June 30, 2023 Compared to Six Months Ended June 30, 2022

Net income attributable to MPC decreased $1.77 billion in the first six months of 2023 compared to the first six months of 2022 primarily due to lower Refining & Marketing margins in the first six months of 2023.

Revenues and other income decreased $20.72 billion primarily due to:

- decreased sales and other operating revenues of $20.65 billion primarily due to decreased Refining & Marketing segment average refined product sales prices of $0.68 per gallon, partially offset by increased refined product sales volumes of 12 mbpd;
- increased income from equity method investments of $43 million largely due to increased income from Midstream equity affiliates, partially offset by decreased income from Refining & Marketing equity affiliates; and
- decreased other income of $113 million primarily due to lower income on RIN sales.

Costs and expenses decreased $18.04 billion primarily due to:

- decreased cost of revenues of $18.22 billion primarily due to lower crude oil costs;
- increased selling, general and administrative expenses of $98 million primarily due to increased salaries and employee related expenses, contract services and technology and communication expenses, partially offset by decreased employee benefit costs, credit card processing fees and insurance expenses; and
- increased other taxes of $68 million primarily due to the reinstated Petroleum Superfund Tax which was effective January 1, 2023.

Net interest and other financial costs decreased $278 million largely due to increased interest income and decreased pension non-service costs, partially offset by increased interest expense due to higher MPLX borrowings.

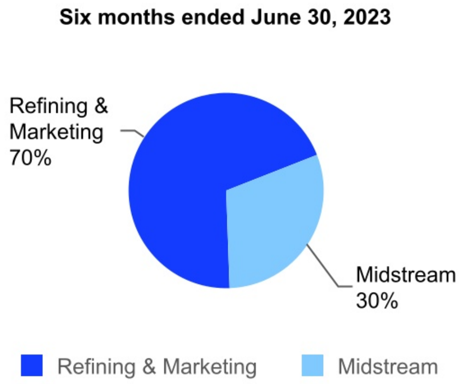
We recorded a combined federal, state and foreign income tax expense of $1.41 billion for the six months ended June 30, 2023, which was lower than the U.S. statutory rate primarily due to net income attributable to noncontrolling interests, a benefit related to foreign derived intangible income, offset by state taxes. We recorded a combined federal, state and foreign income tax expense of $2.08 billion for the six months ended June 30, 2022, which was higher than the U.S. statutory rate primarily due to state taxes offset by net income attributable to noncontrolling interests.

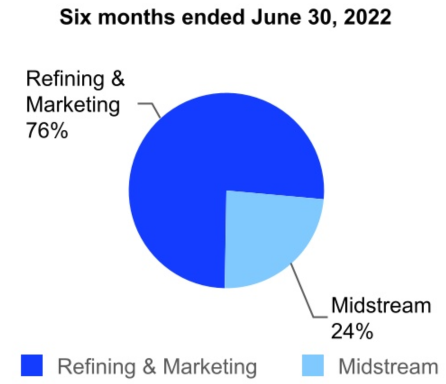
Net income attributable to noncontrolling interests increased $39 million primarily due to an increase in MPLX’s net income in the first six months of 2023.

Segment Results

We classify our business in the following reportable segments: Refining & Marketing and Midstream. Segment adjusted EBITDA represents adjusted EBITDA attributable to the reportable segments. Amounts included in income before income taxes and excluded from segment adjusted EBITDA include: (i) depreciation and amortization; (ii) net interest and other financial costs; (iii) turnaround expenses and (iv) other adjustments as deemed necessary. These items are either: (i) believed to be non-recurring in nature; (ii) not believed to be allocable or controlled by the segment; or (iii) are not tied to the operational performance of the segment.

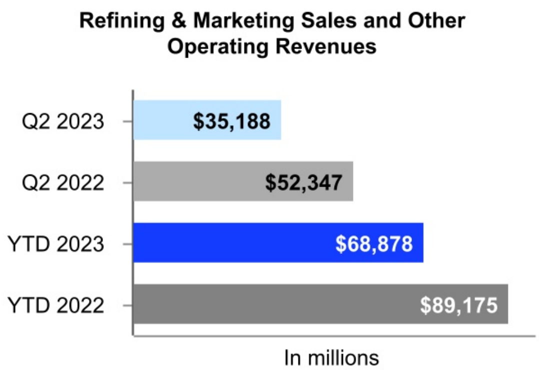
The following shows the percentage of segment adjusted EBITDA by segment for the six months ended June 30, 2023 and 2022.

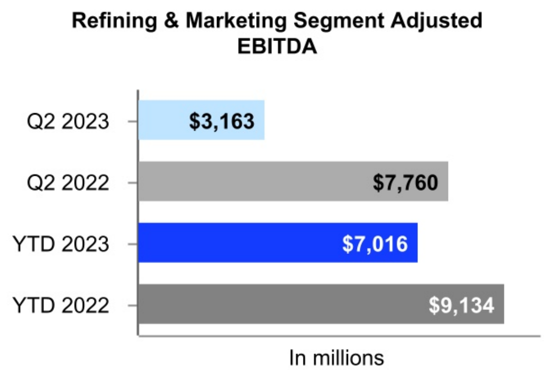


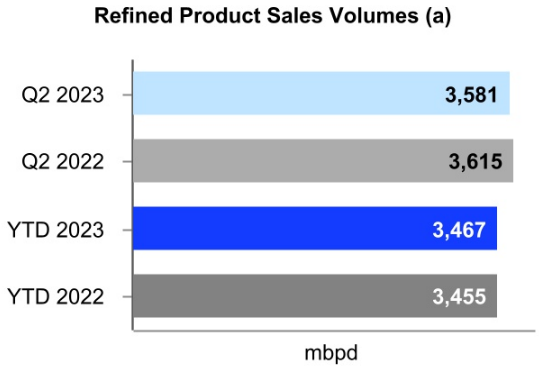


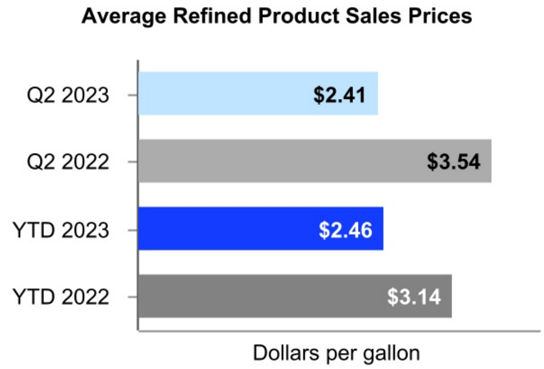
Refining & Marketing

The following includes key financial and operating data for the second quarter of 2023 compared to the second quarter of 2022 and the six months ended June 30, 2023 compared to the six months ended June 30, 2022.









(a) Includes intersegment sales to Midstream and sales destined for export.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Refining & Marketing Operating Statistics				
Net refinery throughput *(mbpd)*	2,925	3,069	2,881	2,952
Refining & Marketing margin per barrel[(a)(b)]	$ 22.10	$ 37.54	$ 24.08	$ 26.93
Less:				
Refining operating costs per barrel[(c)]	5.15	5.19	5.41	5.20
Distribution costs per barrel	5.15	4.76	5.21	4.77
Other income per barrel[(d)]	(0.08)	(0.20)	0.01	(0.14)
Refining & Marketing segment adjusted EBITDA per barrel	$ 11.88	$ 27.79	$ 13.45	$ 17.10
Less:				
Refining planned turnaround costs per barrel	1.47	0.54	1.43	0.56
Depreciation and amortization per barrel	1.82	1.70	1.82	1.75
Refining & Marketing segment income per barrel	$ 8.59	$ 25.55	$ 10.20	$ 14.79
Fees paid to MPLX per barrel included in distribution costs above	$ 3.55	$ 3.30	$ 3.61	$ 3.38

(a) Sales revenue less cost of refinery inputs and purchased products, divided by net refinery throughput.
(b) See “Non-GAAP Measures” section for reconciliation and further information regarding this non-GAAP measure.
(c) Includes refining operating costs and major maintenance costs. Excludes planned turnaround and depreciation and amortization expense.
(d) Includes income (loss) from equity method investments, net gain (loss) on disposal of assets and other income.

The following information presents certain benchmark prices in our marketing areas and market indicators that we believe are helpful in understanding the results of our Refining & Marketing segment. The benchmark crack spreads below do not reflect the market cost of RINs necessary to meet EPA renewable volume obligations for attributable products under the Renewable Fuel Standard.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Benchmark Spot Prices *(dollars per gallon)*				
Chicago CBOB unleaded regular gasoline	$ 2.44	$ 3.55	$ 2.41	$ 3.07
Chicago ULSD	2.44	3.97	2.59	3.41
USGC CBOB unleaded regular gasoline	2.35	3.41	2.37	3.05
USGC ULSD	2.39	3.99	2.63	3.49
LA CARBOB	2.76	3.91	2.74	3.47
LA CARB diesel	2.39	4.07	2.65	3.56
Market Indicators *(dollars per barrel)*				
WTI	$ 73.56	$ 108.52	$ 74.77	$ 101.77
MEH	74.69	109.96	76.22	103.36
ANS	78.43	112.54	78.73	104.43
Crack Spreads:				
Mid-Continent WTI 3-2-1	$ 21.48	$ 38.96	$ 21.94	$ 26.05
USGC MEH 3-2-1	16.59	33.67	18.89	24.31
West Coast ANS 3-2-1	24.49	46.30	27.06	36.38
Blended 3-2-1[(a)]	20.13	38.31	21.75	27.42
Crude Oil Differentials:				
Sweet	$ (0.34)	$ 0.35	$ (0.03)	$ 0.23
Sour	(5.77)	(5.03)	(7.50)	(4.95)

(a) Blended 3-2-1 Mid-Continent/USGC/West Coast crack spread is 40/40/20 percent in 2023 and 2022.

Second Quarter 2023 Compared to Second Quarter 2022

Refining & Marketing segment revenues decreased $17.16 billion primarily due to decreased average refined product sales prices of $1.13 per gallon and decreased refined product sales volumes of 34 mbpd.

Net refinery throughput decreased 144 mbpd during the second quarter of 2023.

Refining & Marketing segment adjusted EBITDA decreased $4.60 billion primarily due to decreases in per barrel margins and throughput and increased distribution costs, excluding depreciation and amortization, partially offset by decreased refining operating costs, excluding depreciation and amortization. Refining & Marketing segment adjusted EBITDA was $11.88 per barrel for the second quarter of 2023, versus $27.79 per barrel for the second quarter of 2022.

Refining & Marketing margin was $22.10 per barrel for the second quarter of 2023 compared to $37.54 per barrel for the second quarter of 2022. Refining & Marketing margin is affected by our performance against the market indicators shown earlier, which use spot market values and an estimated mix of crude purchases and product sales. Based on the market indicators and our crude oil throughput, we estimate a net negative impact of approximately $5 billion on Refining & Marketing margin for the second quarter of 2023 compared to the second quarter of 2022, primarily due to narrower crack spreads. Our reported Refining & Marketing margin differs from market indicators due to the mix of crudes purchased and their costs, the effect of market structure on our crude oil acquisition prices, the effect of RIN prices on the crack spread, and other items like refinery yields, other feedstock variances and fuel margin from sales to direct dealers. These factors had an estimated net positive effect of approximately $300 million on Refining & Marketing segment income in the second quarter of 2023 compared to the second quarter of 2022.

For the three months ended June 30, 2023, refining operating costs, excluding depreciation and amortization, decreased $77 million, or $0.04 per barrel, largely due to lower energy costs, partially offset by project expense associated with higher turnaround activity and routine maintenance expense.

Distribution costs, excluding depreciation and amortization, increased $42 million, or $0.39 per barrel, and include fees paid to MPLX of $946 million and $922 million for the second quarter of 2023 and 2022, respectively. The increase was primarily due to higher pipeline tariff rates and logistics fee escalations.

Refining planned turnaround costs increased $241 million, or $0.93 per barrel, due to the scope and timing of turnaround activity.

Depreciation and amortization increased $9 million, or $0.12 per barrel.

We purchase RINs to satisfy a portion of our RFS2 compliance. Our expenses associated with purchased RINs were $694 million and $730 million, net of benefits related to retroactive changes in renewable volume obligation requirements, in the second quarter of 2023 and 2022, respectively. The RINs expense is included in Refining & Marketing margin. The decrease in the second quarter of 2023 was primarily due to increased RINs acquired with purchased product from third parties and the Martinez Renewable Fuels joint venture.

Six Months Ended June 30, 2023 Compared to Six Months Ended June 30, 2022

Refining & Marketing segment revenues decreased $20.30 billion primarily due to decreased average refined product sales prices of $0.68 per gallon, partially offset by increased refined product sales volumes of 12 mbpd.

Net refinery throughput decreased 71 mbpd in the first six months of 2023.

Refining & Marketing segment adjusted EBITDA decreased $2.12 billion primarily driven by decreases in per barrel margins and throughput and increased distribution costs and refining operating costs, both excluding depreciation and amortization. Refining & Marketing segment adjusted EBITDA was $13.45 per barrel for the first six months of 2023, versus $17.10 per barrel for the first six months of 2022.

Refining & Marketing margin was $24.08 per barrel for the first six months of 2023 compared to $26.93 per barrel for the first six months of 2022. Refining & Marketing margin is affected by the market indicators shown earlier, which use spot market values and an estimated mix of crude purchases and product sales. Based on the market indicators and our crude oil throughput, we estimate a net negative impact of approximately $2 billion on Refining & Marketing margin for the first six months of 2023 compared to the first six months of 2022, primarily due to narrower crack spreads. Our reported Refining & Marketing margin differs from market indicators due to the mix of crudes purchased and their costs, market structure on our crude oil acquisition prices, RIN prices on the crack spread, and other items like refinery yields, other feedstock variances and fuel margin from sales to direct dealers. These factors had an estimated net positive effect of approximately $600 million on Refining & Marketing segment income in the first six months of 2023 compared to the first six months of 2022.

For the six months ended June 30, 2023, refining operating costs, excluding depreciation and amortization, increased $43 million, or $0.21 per barrel, largely due to project expense associated with higher turnaround activity, partially offset by lower energy costs.

Distribution costs, excluding depreciation and amortization, increased $165 million for the first six months of 2023, or $0.44 per barrel, and include fees paid to MPLX of $1.88 billion and $1.80 billion for the first six months of 2023 and 2022, respectively. The increase was primarily due to higher pipeline tariff rates and logistics fee escalations.

Refining planned turnaround costs increased $453 million, or $0.87 per barrel, due to the scope and timing of turnaround activity.

Depreciation and amortization increased $12 million, or $0.07 per barrel.

We purchase RINs to satisfy a portion of our RFS2 compliance. Our expenses associated with purchased RINs were $1.16 billion and $1.30 billion, net of benefits related to retroactive changes in renewable volume obligation requirements, in the first six months of 2023 and 2022, respectively. The RINs expense is included in Refining & Marketing margin. The decrease in the first six months of 2023, was primarily due to increased RINs acquired with purchased product from third parties and the Martinez Renewable Fuels joint venture.

Supplemental Refining & Marketing Statistics

	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Refining & Marketing Operating Statistics				
Crude oil capacity utilization percent[a]	93	100	91	96
Refinery throughput (*mbpd*):				
Crude oil refined	2,698	2,896	2,632	2,761
Other charge and blendstocks	227	173	249	191
Net refinery throughput	2,925	3,069	2,881	2,952
Sour crude oil throughput percent	46	48	44	47
Sweet crude oil throughput percent	54	52	56	53
Refined product yields (*mbpd*):				
Gasoline[b]	1,497	1,536	1,503	1,510
Distillates[b]	1,033	1,123	1,029	1,051
Propane	67	74	67	71
NGLs and petrochemicals[b]	227	224	192	193
Heavy fuel oil	61	54	46	70
Asphalt	83	91	83	89
Total	2,968	3,102	2,920	2,984
Refined product export sales volumes (*mbpd*)[c]	295	326	297	298

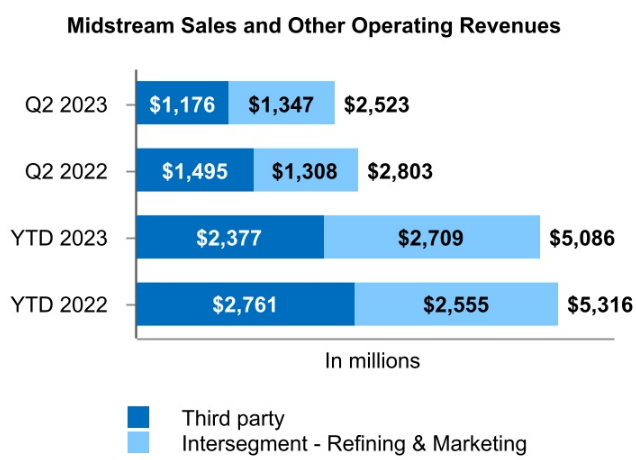
(a) Based on calendar-day capacity, which is an annual average that includes down time for planned maintenance and other normal operating activities.

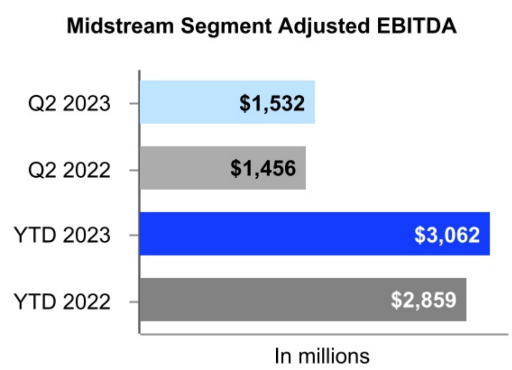
(b) Product yields include renewable production.

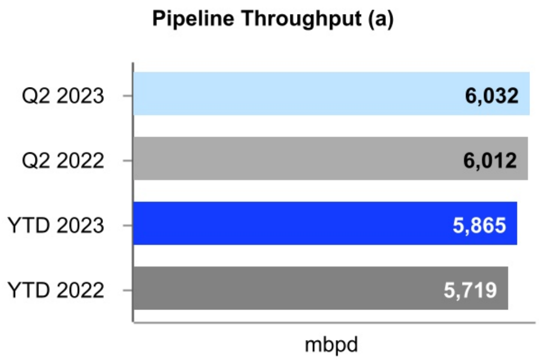
(c) Represents fully loaded export cargoes for each time period. These sales volumes are included in the total sales volume amounts.

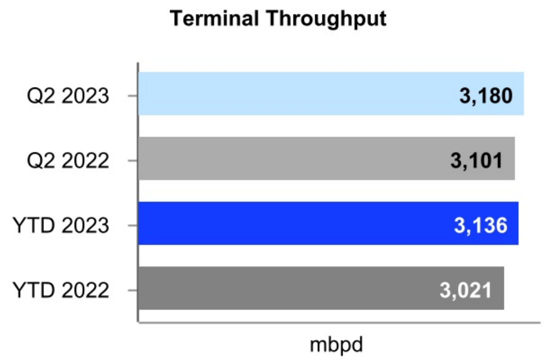
Midstream

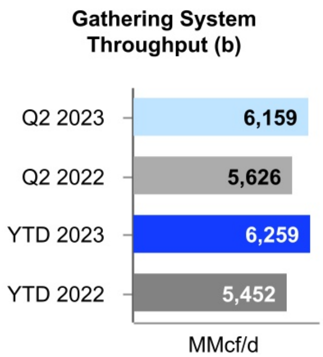
The following includes key financial and operating data for the second quarter of 2023 compared to the second quarter of 2022 and the six months ended June 30, 2023 compared to the six months ended June 30, 2022.

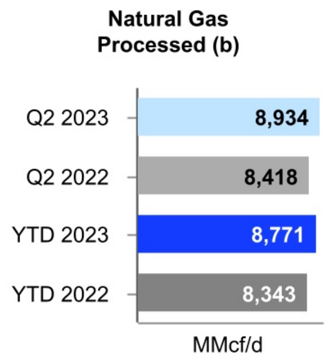


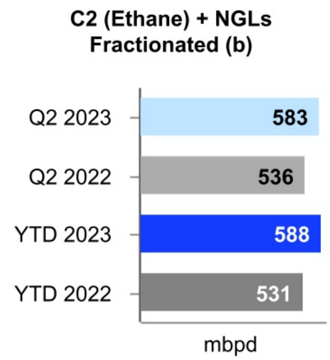












(a) On owned common-carrier pipelines, excluding equity method investments.

(b) Includes amounts related to MPLX operated unconsolidated equity method investments on a 100 percent basis.

	Three Months Ended June 30,		Six Months Ended June 30,	
Benchmark Prices	2023	2022	2023	2022
Natural Gas NYMEX HH *(per MMBtu)*	$ 2.32	$ 7.50	$ 2.54	$ 6.04
C2 + NGL Pricing *(per gallon)*[(a)]	$ 0.63	$ 1.18	$ 0.70	$ 1.16

(a) C2 + NGL pricing based on Mont Belvieu prices assuming an NGL barrel of approximately 35 percent ethane, 35 percent propane, 6 percent iso-butane, 12 percent normal butane and 12 percent natural gasoline.

Second Quarter 2023 Compared to Second Quarter 2022

In the second quarter of 2023, Midstream segment adjusted EBITDA increased $76 million. Sales and operating revenues decreased $280 million mainly due to lower NGL prices, partially offset by higher throughput and rate escalations. This decrease was more than offset by lower purchased product costs of $309 million, primarily due to lower NGL prices of $393 million, partially offset by higher volumes of $90 million, and an increase in income from equity method investments of $41 million.

Six Months Ended June 30, 2023 Compared to Six Months Ended June 30, 2022

Midstream segment adjusted EBITDA increased $203 million in the first six months of 2023. Sales and operating revenues decreased $230 million mainly due to lower NGL prices, partially offset by higher throughput and rate escalations. This decrease was more than offset by lower purchased product costs of $370 million, primarily due to lower NGL prices of $550 million, partially offset by higher volumes of $172 million, and an increase in income from equity method investments of $80 million.

Corporate

Key Financial Information *(millions of dollars)*	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Corporate[a]	$ (183)	$ (170)	$ (367)	$ (321)

[a] Corporate costs consist primarily of MPC's corporate administrative expenses and costs related to certain non-operating assets, except for corporate overhead expenses attributable to MPLX, which are included in the Midstream segment. Corporate costs include depreciation and amortization of $19 million and $14 million for the second quarter of 2023 and 2022, respectively, and $38 million and $27 million for the six months ended June 30, 2023 and 2022, respectively.

Second Quarter 2023 Compared to Second Quarter 2022

In the second quarter of 2023, corporate expenses increased $13 million largely due to higher contract services, salaries and wages and technology and communication expenses, partially offset by lower expenses associated with performance-based equity awards.

Six Months Ended June 30, 2023 Compared to Six Months Ended June 30, 2022

Corporate expenses increased $46 million in the first six months of 2023 mainly due to higher salaries and wages, technology and communication expenses and contract services.

Items not Allocated to Segments

Key Financial Information *(millions of dollars)*	Three Months Ended June 30,		Six Months Ended June 30,	
	2023	2022	2023	2022
Items not allocated to segments:				
Renewable volume obligation requirements	$ —	$ 238	$ —	$ 238
Litigation	—	—	—	27
Total items not allocated to segments:	$ —	$ 238	$ —	$ 265

Second Quarter 2023 Compared to Second Quarter 2022

In the second quarter of 2022, items not allocated to segments included a $238 million benefit related to retroactive changes in renewable volume obligation requirements published by the EPA for 2020 and 2021.

Six Months Ended June 30, 2023 Compared to Six Months Ended June 30, 2022

In the second quarter of 2022, items not allocated to segments primarily included a $238 million benefit related to retroactive changes in renewable volume obligation requirements published by the EPA for 2020 and 2021.

Non-GAAP Financial Measure

Management uses a financial measure to evaluate our operating performance that is calculated and presented on the basis of a methodology other than in accordance with GAAP. The non-GAAP financial measure we use is as follows:

Refining & Marketing Margin

Refining & Marketing margin is defined as sales revenue less cost of refinery inputs and purchased products. We believe this non-GAAP financial measure is used to evaluate our Refining & Marketing segment's operating and financial performance as it is the most comparable measure to the industry's market reference product margins. This measure should not be considered a substitute for, or superior to, Refining & Marketing gross margin or other measures of financial performance prepared in accordance with GAAP, and our calculations thereof may not be comparable to similarly titled measures reported by other companies.

Reconciliation of Refining & Marketing segment adjusted EBITDA to Refining & Marketing gross margin and Refining & Marketing margin

	Three Months Ended June 30,		Six Months Ended June 30,	
(Millions of dollars)	2023	2022	2023	2022
Refining & Marketing segment adjusted EBITDA	$ 3,163	$ 7,760	$ 7,016	$ 9,134
Plus (Less):				
Depreciation and amortization	(484)	(475)	(948)	(936)
Refining planned turnaround costs	(392)	(151)	(749)	(296)
Selling, general and administrative expenses	596	574	1,188	1,082
(Income) loss from equity method investments	(17)	(6)	19	(18)
Net gain on disposal of assets	—	(37)	(3)	(37)
Other income	(241)	(234)	(292)	(415)
Refining & Marketing gross margin	2,625	7,431	6,231	8,514
Plus (Less):				
Operating expenses (excluding depreciation and amortization)	2,748	2,554	5,493	4,943
Depreciation and amortization	484	475	948	936
Gross margin excluded from and other income included in Refining & Marketing margin[(a)]	95	71	28	85
Other taxes included in Refining & Marketing margin	(69)	(49)	(140)	(92)
Refining & Marketing margin	$ 5,883	$ 10,482	$ 12,560	$ 14,386

(a) Reflects the gross margin, excluding depreciation and amortization, of other related operations included in the Refining & Marketing segment and processing of credit card transactions on behalf of certain of our marketing customers, net of other income.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flows

Our consolidated cash and cash equivalents balance was approximately $7.35 billion at June 30, 2023 compared to $8.63 billion at December 31, 2022. Net cash provided by (used in) operating activities, investing activities and financing activities are presented in the following table.

	Six Months Ended June 30,	
(Millions of dollars)	2023	2022
Net cash provided by (used in):		
Operating activities - continuing operations	$ 8,041	$ 9,509
Operating activities - discontinued operations	—	(44)
Total operating activities	8,041	9,465
Investing activities	(1,696)	620
Financing activities	(7,627)	(6,296)
Total increase (decrease) in cash	$ (1,282)	$ 3,789

Operating Activities

Net cash provided by continuing operations decreased $1.47 billion in the first six months of 2023 compared to the first six months of 2022. The change in net cash provided by continuing operations is primarily due to a decrease in operating results, partially offset by a favorable change in working capital of $78 million when comparing the change in working capital in both periods.

For the first six months of 2023, changes in working capital, excluding changes in short-term debt, were a net $756 million source of cash primarily due to the effects of decreasing energy commodity prices and volumes at the end of the period on working capital. Current receivables decreased primarily due to decreases in crude volumes and prices. Accounts payable decreased primarily due to decreases in crude prices and volumes. Inventories increased primarily due to increases in refined product and crude oil inventory volumes.

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For the first six months of 2022, changes in working capital, excluding changes in short-term debt, were a net $678 million source of cash primarily due to the effects of increasing energy commodity prices and volumes at the end of the period on working capital. Accounts payable increased primarily due to increases in crude prices and volumes. Current receivables increased primarily due to increases in refined product and crude volumes and prices. Inventories increased primarily due to increases in crude and refined product inventories.

Net cash used in discontinued operations reflects the results of the Speedway business. The $44 million use of cash in the first six months of 2022 represents payment of state income tax liabilities.

Investing Activities

Net cash used in investing activities was $1.70 billion in the first six months of 2023 compared to net cash provided by investing activities of $620 million in the first six months of 2022.

- Net cash used in investing activities in the first six months of 2023 is primarily due to purchases of short-term investments of $4.72 billion, partially offset by maturities and sales of short-term investments of $2.23 billion and $1.58 billion, respectively.

  Net cash provided by investing activities in the first six months of 2022 was primarily due to maturities and sales of short-term investments of $2.81 billion and $1.08 billion, respectively, partially offset by purchases of short-term investments of $2.58 billion.
- Additions to property, plant and equipment decreased $55 million. See the “Capital Requirements” section for additional information on our capital investment plan.
- Cash used for acquisitions of $74 million in the first six months of 2022 included acquisitions in our Refining & Marketing and Midstream segments.
- Cash used in net investments was $296 million for the first six months of 2023 compared to $160 million for the first six months of 2022. In 2023, investments primarily included the Martinez Renewable Fuels joint venture and the acquisition of a 49.9 percent equity interest in LF Bioenergy for approximately $56 million. In 2022, increased MPLX contributions to equity method investments included a $60 million contribution to its Bakken Pipeline joint venture to fund its share of a debt repayment by the joint venture.

The consolidated statements of cash flows exclude changes to the consolidated balance sheets that did not affect cash. A reconciliation of additions to property, plant and equipment per the consolidated statements of cash flows to reported total capital expenditures and investments follows.

	Six Months Ended June 30,	
(Millions of dollars)	2023	2022
Additions to property, plant and equipment per the consolidated statements of cash flows	$ 938	$ 993
Increase (decrease) in capital accruals	18	(3)
Total capital expenditures	956	990
Investments in equity method investees	296	160
Total capital expenditures and investments	$ 1,252	$ 1,150

Financing Activities

Financing activities were a net $7.63 billion use of cash in the first six months of 2023 compared to a net $6.30 billion use of cash in the first six months of 2022.

- Long-term debt borrowings and repayments were a net $531 million source of cash in the first six months of 2023 compared to a net $1.13 billion source of cash in the first six months of 2022. During the first six months of 2023, MPLX issued $1.6 billion of senior notes and redeemed $1.0 billion of senior notes.

  During the first six months of 2022, MPLX issued $1.5 billion of senior notes and had net payments of $300 million under its revolving credit facility.
- Cash used in common stock repurchases, including fees and expenses, totaled $6.25 billion in the first six months of 2023 compared to $6.18 billion in the first six months of 2022. See the “Capital Requirements” section for further discussion of our stock repurchases.
- Cash used in dividend payments increased $10 million due to increased per share dividends in 2023 offset by a reduction of shares resulting from share repurchases in 2023 and 2022.
- Cash used in repurchases of noncontrolling interests was $135 million in the first six months of 2022 related to the repurchase of MPLX common units. See Note 4 to the unaudited consolidated financial statements for further discussion of MPLX.
- During the first six months of 2023, MPLX redeemed all of its outstanding Series B preferred units for $600 million.

Derivative Instruments

See Item 3. Quantitative and Qualitative Disclosures about Market Risk for a discussion of derivative instruments and associated market risk.

Capital Resources

MPC, Excluding MPLX

We control MPLX through our ownership of the general partner; however, the creditors of MPLX do not have recourse to MPC's general credit through guarantees or other financial arrangements, except as noted. MPC has effectively guaranteed certain indebtedness of LOOP and LOCAP, in which MPLX holds an interest. Therefore, in the following table, we present the liquidity of MPC, excluding MPLX. MPLX liquidity is discussed in the following section.

Our liquidity, excluding MPLX, totaled $15.70 billion at June 30, 2023 consisting of:

	June 30, 2023			
(Millions of dollars)	Total Capacity	Outstanding Borrowings	Outstanding Letters of Credit	Available Capacity
Bank revolving credit facility	$ 5,000	$ —	$ 1	$ 4,999
Trade receivables facility[(a)]	100	—	100	—
Total	$ 5,100	$ —	$ 101	$ 4,999
Cash and cash equivalents and short-term investments[(b)]				10,699
Total liquidity				$ 15,698

(a) The committed borrowing and letter of credit issuance capacity of the trade receivables securitization facility is $100 million. In addition, the facility allows for the issuance of letters of credit in excess of the committed capacity at the discretion of the issuing banks. As of June 30, 2023, letters of credit in the total amount of $386 million were issued and outstanding under the facility to secure contracts awarded by the Department of Energy to purchase crude oil from the Strategic Petroleum Reserve.

(b) Excludes cash and cash equivalents of MPLX of $755 million.

Because of the alternatives available to us, including internally generated cash flow and access to capital markets and a commercial paper program, we believe that our short-term and long-term liquidity is adequate to fund not only our current operations, but also our near-term and long-term funding requirements, including capital spending programs, the repurchase of shares of our common stock, dividend payments, defined benefit plan contributions, repayment of debt maturities and other amounts that may ultimately be paid in connection with contingencies.

We have a commercial paper program that allows us to have a maximum of $2.0 billion in commercial paper outstanding. We do not intend to have outstanding commercial paper borrowings in excess of available capacity under our bank revolving credit facility. At June 30, 2023, we had no borrowings outstanding under the commercial paper program.

The MPC Credit Agreement and trade receivables facility contain representations and warranties, affirmative and negative covenants and events of default that we consider usual and customary for agreements of these types. The financial covenant included in the MPC Credit Agreement requires us to maintain, as of the last day of each fiscal quarter, a ratio of Consolidated Net Debt to Total Capitalization (as defined in the MPC Credit Agreement) of no greater than 0.65 to 1.00. As of June 30, 2023, we were in compliance with the covenants contained in the MPC Credit Agreement and our trade receivables facility, including the financial covenant with a ratio of Consolidated Net Debt to Total Capitalization of 0.03 to 1.00.

Our intention is to maintain an investment-grade credit profile. As of June 30, 2023, the credit ratings on our senior unsecured debt are as follows.

Company	Rating Agency	Rating
MPC	Moody's	Baa2 (stable outlook)
	Standard & Poor's	BBB (stable outlook)
	Fitch	BBB (stable outlook)

The ratings reflect the respective views of the rating agencies and should not be interpreted as a recommendation to buy, sell or hold our securities. Although it is our intention to maintain a credit profile that supports an investment grade rating, there is no assurance that these ratings will continue for any given period of time. The ratings may be revised or withdrawn entirely by the rating agencies if, in their respective judgments, circumstances so warrant. A rating from one rating agency should be evaluated independently of ratings from other rating agencies.

The MPC Credit Agreement does not contain credit rating triggers that would result in the acceleration of interest, principal or other payments in the event that our credit ratings are downgraded. However, any downgrades of our senior unsecured debt could increase the applicable interest rates, yields and other fees payable thereunder and may limit our flexibility to obtain financing in the future, including to refinance existing indebtedness. In addition, a downgrade of our senior unsecured debt rating to below investment-grade levels could, under certain circumstances, impact our ability to purchase crude oil on an unsecured basis and could result in us having to post letters of credit under existing transportation services or other agreements.

See Note 17 to the unaudited consolidated financial statements for further discussion of our debt.

MPLX

MPLX's liquidity totaled $4.26 billion at June 30, 2023 consisting of:

	June 30, 2023			
(Millions of dollars)	Total Capacity	Outstanding Borrowings	Outstanding Letters of Credit	Available Capacity
MPLX LP - bank revolving credit facility[(a)]	$ 2,000	$ —	$ —	$ 2,000
MPC intercompany loan agreement	1,500	—	—	1,500
Total	$ 3,500	$ —	$ —	$ 3,500
Cash and cash equivalents				755
Total liquidity				$ 4,255

(a) Outstanding borrowings include less than $1 million in letters of credit outstanding under this facility.

On February 9, 2023, MPLX issued $1.6 billion aggregate principal amount of senior notes in a public offering, consisting of $1.1 billion aggregate principal amount of 5.00 percent senior notes due March 2033 and $500 million aggregate principal amount of 5.65 percent senior notes due March 2053. On February 15, 2023, MPLX used $600 million of the net proceeds to redeem all of its outstanding Series B preferred units. On March 13, 2023, MPLX used the remaining proceeds to redeem all of MPLX's and MarkWest's $1.0 billion aggregate principal amount of 4.50 percent senior notes due July 2023.

The MPLX Credit Agreement contains certain representations and warranties, affirmative and restrictive covenants and events of default that we consider to be usual and customary for an agreement of this type. The financial covenant requires MPLX to maintain a ratio of Consolidated Total Debt as of the end of each fiscal quarter to Consolidated EBITDA (both as defined in the MPLX credit agreement) for the prior four fiscal quarters of no greater than 5.0 to 1.0 (or 5.5 to 1.0 during the six-month period following certain acquisitions). Consolidated EBITDA is subject to adjustments for certain acquisitions completed and capital projects undertaken during the relevant period. Other covenants restrict MPLX and/or certain of its subsidiaries from incurring debt, creating liens on assets and entering into transactions with affiliates. As of June 30, 2023, MPLX was in compliance with the covenants, including the financial covenant with a ratio of Consolidated Total Debt to Consolidated EBITDA of 3.5 to 1.0.

Our intention is to maintain an investment-grade credit profile for MPLX. As of June 30, 2023, the credit ratings on MPLX's senior unsecured debt are as follows.

Company	Rating Agency	Rating
MPLX	Moody's	Baa2 (stable outlook)
	Standard & Poor's	BBB (stable outlook)
	Fitch	BBB (stable outlook)

The ratings reflect the respective views of the rating agencies and should not be interpreted as a recommendation to buy, sell or hold MPLX securities. Although it is our intention to maintain a credit profile that supports an investment grade rating for MPLX, there is no assurance that these ratings will continue for any given period of time. The ratings may be revised or withdrawn entirely by the rating agencies if, in their respective judgments, circumstances so warrant. A rating from one rating agency should be evaluated independently of ratings from other rating agencies.

The agreements governing MPLX's debt obligations do not contain credit rating triggers that would result in the acceleration of interest, principal or other payments in the event that MPLX credit ratings are downgraded. However, any downgrades of MPLX senior unsecured debt to below investment grade ratings could increase the applicable interest rates, yields and other fees payable under such agreements. In addition, a downgrade of MPLX senior unsecured debt ratings to below investment-grade levels may limit MPLX's ability to obtain future financing, including to refinance existing indebtedness.

See Note 17 to the unaudited consolidated financial statements for further discussion of MPLX's debt.

Capital Requirements

Capital Investment Plan

MPC's capital investment plan for 2023 totals approximately $1.3 billion for capital projects and investments, excluding capitalized interest, potential acquisitions and MPLX's capital investment plan. MPC's capital investment plan includes all of the planned capital spending for Refining & Marketing and Corporate, as well as a portion of the planned capital investments for Midstream. The remainder of the planned capital spending for Midstream reflects the capital investment plan for MPLX, which totals $950 million, excluding reimbursable capital. We continuously evaluate our capital investment plan and make changes as conditions warrant.

Capital expenditures and investments for MPC and MPLX are summarized below.

(Millions of dollars)	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Capital expenditures and investments:[a]		
MPC, excluding MPLX		
Refining & Marketing	$ 664	$ 559
Midstream - Other	(1)	5
Corporate and Other[b]	40	38
Total MPC, excluding MPLX	$ 703	$ 602
Midstream - MPLX	$ 515	$ 500

[a] Capital expenditures include changes in capital accruals.

[b] Excludes capitalized interest of $34 million and $48 million for the six months ended June 30, 2023 and 2022, respectively.

Capital expenditures and investments in affiliates during the six months ended June 30, 2023, were primarily for Refining & Marketing and Midstream projects. Major Refining & Marketing projects include renewables projects, primarily the Martinez facility conversion and an emissions reduction program at our Los Angeles refinery, the STAR project, which commenced operations, and projects that we expect will help us reduce future operating costs and improve the competitive position of our assets.

Major Midstream projects were primarily for MPLX for gas processing plants and gathering projects in the Marcellus and Permian basins, as well as additions to MPLX's brown water marine fleet.

Share Repurchases

On May 2, 2023, we announced that our board of directors approved a $5.0 billion share repurchase authorization in addition to the $5.0 billion share repurchase authorization announced on January 31, 2023. The authorizations have no expiration date.

Total share repurchases were as follows for the respective periods:

(In millions, except per share data)	Three Months Ended June 30, 2023	Three Months Ended June 30, 2022	Six Months Ended June 30, 2023	Six Months Ended June 30, 2022
Number of shares repurchased	26	34	51	71
Cash paid for shares repurchased	$ 3,068	$ 3,331	$ 6,248	$ 6,177
Average cost per share[a]	$ 117.62	$ 95.46	$ 122.07	$ 85.31

[a] The average cost per share for the 2023 period includes a 1% excise tax on share repurchases resulting from the Inflation Reduction Act of 2022.

From January 1, 2012 through June 30, 2023, our board of directors has approved $45.05 billion in total share repurchase authorizations and we have repurchased a total of $37.93 billion of our common stock. As of June 30, 2023, MPC has $7.12 billion remaining under its share repurchase authorizations, which reflects the repurchase of 540,000 common shares for $63 million that were transacted in the second quarter of 2023 and settled in the third quarter of 2023.

We may utilize various methods to effect the repurchases, which could include open market repurchases, negotiated block transactions, tender offers, accelerated share repurchases or open market solicitations for shares, some of which may be effected through Rule 10b5-1 plans. The timing and amount of future repurchases, if any, will depend upon several factors, including market and business conditions, and such repurchases may be discontinued at any time.

See Note 8 to the unaudited consolidated financial statements for further discussion of our share repurchase authorizations.

MPLX Unit Repurchases

Total unit repurchases were as follows for the respective periods:

	Three Months Ended June 30,		Six Months Ended June 30,	
(In millions, except per share data)	2023	2022	2023	2022
Number of common units repurchased	—	1	—	4
Cash paid for common units repurchased	$ —	$ 35	$ —	$ 135
Average cost per unit	$ —	$ 33.74	$ —	$ 32.48

As of June 30, 2023, approximately $846 million remained available under the authorization for future unit repurchases.

MPLX may utilize various methods to effect the repurchases, which could include open market repurchases, negotiated block transactions, tender offers, accelerated share repurchases or open market solicitations for units, some of which may be effected through Rule 10b5-1 plans. The timing and amount of future repurchases, if any, will depend upon several factors, including market and business conditions, and such repurchases may be discontinued at any time.

Cash Commitments

Contractual Obligations

As of June 30, 2023, our purchase commitments primarily consist of obligations to purchase and transport crude oil used in our refining operations. During the first six months of 2023, there were no material changes to our contractual obligations outside the ordinary course of business since December 31, 2022.

Our other contractual obligations primarily consist of long-term debt and pension and post-retirement obligations, for which additional information is included in Notes 17 and 22, respectively, to the unaudited consolidated financial statements, and financing and operating leases.

Other Cash Commitments

On July 26, 2023, our board of directors declared a dividend of $0.75 per share on common stock. The dividend is payable September 11, 2023, to shareholders of record as of the close of business on August 16, 2023.

During the six months ended June 30, 2023, we made no contributions to our funded pension plans. We have no required funding for 2023, but may make voluntary contributions of approximately $200 million at our discretion depending on the anticipated funding status and plan asset performance.

We may, from time to time, repurchase our senior notes in the open market, in tender offers, in privately-negotiated transactions or otherwise in such volumes, at such prices and upon such other terms as we deem appropriate.

ENVIRONMENTAL MATTERS AND COMPLIANCE COSTS

We have incurred and may continue to incur substantial capital, operating and maintenance, and remediation expenditures as a result of environmental laws and regulations. If these expenditures, as with all costs, are not ultimately reflected in the prices of our products and services, our operating results will be adversely affected. We believe that substantially all of our competitors must comply with similar environmental laws and regulations. However, the specific impact on each competitor may vary depending on a number of factors, including the age and location of its operating facilities, marketing areas, production processes and whether it is also engaged in the petrochemical business or the marine transportation of crude oil and refined products.

As previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022, actual expenditures may vary as the number and scope of environmental projects are revised as a result of improved technology or changes in regulatory requirements.

There have been no additional significant changes to our environmental matters and compliance costs during the six months ended June 30, 2023.

CRITICAL ACCOUNTING ESTIMATES

As of June 30, 2023, there have been no significant changes to our critical accounting estimates since our Annual Report on Form 10-K for the year ended December 31, 2022.

ACCOUNTING STANDARDS NOT YET ADOPTED

We have not identified any recent accounting pronouncements that are expected to have a material impact on our financial condition, results of operations or cash flows upon adoption.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

For a detailed discussion of our risk management strategies and our derivative instruments, see Item 7A. Quantitative and Qualitative Disclosures about Market Risk in our Annual Report on Form 10-K for the year ended December 31, 2022.

See Notes 15 and 16 to the unaudited consolidated financial statements for more information about the fair value measurement of our derivatives, as well as the amounts recorded in our consolidated balance sheets and statements of income. We do not designate any of our commodity derivative instruments as hedges for accounting purposes.

The following table includes the composition of net gains and losses on our commodity derivative positions as of June 30, 2023 and 2022, respectively.

	Six Months Ended June 30,	
(Millions of dollars)	2023	2022
Realized gain (loss) on settled derivative positions	$ 137	$ (458)
Unrealized gain (loss) on open net derivative positions	(15)	134
Net gain (loss)	$ 122	$ (324)

See Note 16 to the unaudited consolidated financial statements for additional information on our open derivative positions at June 30, 2023.

Sensitivity analysis of the effects on income from operations (“IFO”) of hypothetical 10 percent and 25 percent increases and decreases in commodity prices for open commodity derivative instruments as of June 30, 2023 is provided in the following table.

	Change in IFO from a Hypothetical Price Increase of		Change in IFO from a Hypothetical Price Decrease of	
(Millions of dollars)	10%	25%	10%	25%
As of June 30, 2023				
Crude	$ (34)	$ (85)	$ 34	$ 85
Refined products	3	8	(3)	(8)
Blending products	(12)	(29)	12	29
Soybean oil	(11)	(27)	11	27

We remain at risk for possible changes in the market value of commodity derivative instruments; however, such risk should be mitigated by price changes in the underlying physical commodity. Effects of these offsets are not reflected in the above sensitivity analysis.

We evaluate our portfolio of commodity derivative instruments on an ongoing basis and add or revise strategies in anticipation of changes in market conditions and in risk profiles. Changes to the portfolio after June 30, 2023 would cause future IFO effects to differ from those presented above.

Sensitivity analysis of the effect of a hypothetical 100-basis-point change in interest rates on long-term debt, including the portion classified as current and excluding finance leases, as of June 30, 2023 is provided in the following table. The fair value of cash and cash equivalents, receivables, accounts payable and accrued interest approximate carrying value and, in addition to short-term investments which are recorded at fair value, are relatively insensitive to changes in interest rates due to the short-term maturity of the instruments. Accordingly, these instruments are excluded from the table.

(Millions of dollars)	Fair Value as of June 30, 2023[a]	Change in Fair Value[b]	Change in Net Income for the Six Months Ended June 30, 2023[c]
Long-term debt			
Fixed-rate	$ 24,726	$ 1,972	n/a
Variable-rate	—	—	—

[a] Fair value was based on market prices, where available, or current borrowing rates for financings with similar terms and maturities.

[b] Assumes a 100-basis-point decrease in the weighted average yield-to-maturity at June 30, 2023.

[c] Assumes a 100-basis-point change in interest rates. The change to net income was based on the weighted average balance of debt outstanding for the six months ended June 30, 2023.

At June 30, 2023, our long-term debt was composed of fixed-rate instruments. The fair value of our fixed-rate debt is relatively sensitive to interest rate fluctuations. Our sensitivity to interest rate declines and corresponding increases in the fair value of our debt unfavorably affects our results of operations and cash flows only when we elect to repurchase or otherwise retire fixed-rate debt at prices above carrying value. Interest rate fluctuations generally do not impact the fair value of our variable-rate debt, but may affect our results of operations and cash flows.

See Note 15 to the unaudited consolidated financial statements for additional information on the fair value of our debt.

Item 4. Controls and Procedures

Disclosure Controls and Procedures

An evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) was carried out under the supervision and with the participation of our management, including our chief executive officer and chief financial officer. Based upon that evaluation, the chief executive officer and chief financial officer concluded that the design and operation of these disclosure controls and procedures were effective as of June 30, 2023, the end of the period covered by this report.

Changes in Internal Control over Financial Reporting

During the quarter ended June 30, 2023, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings

We are the subject of, or a party to, a number of pending or threatened legal actions, contingencies and commitments involving a variety of matters, including laws and regulations relating to the environment. While it is possible that an adverse result in one or more of the lawsuits or proceedings in which we are a defendant could be material to us, based upon current information and our experience as a defendant in other matters, we believe that these lawsuits and proceedings, individually or in the aggregate, will not have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Item 103 of Regulation S-K promulgated by the SEC requires disclosure of certain environmental matters when a governmental authority is a party to the proceedings and such proceedings involve potential monetary sanctions, unless we reasonably believe that the matter will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than a specified threshold of $1 million for this purpose.

There have been no material changes to the legal matters previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022, or in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2023.

Item 1A. Risk Factors

There have been no material changes from the risk factors previously disclosed in our Annual Report on Form 10-K for the year ended December 31, 2022.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

The following table sets forth a summary of our purchases during the quarter ended June 30, 2023, of equity securities that are registered by MPC pursuant to Section 12 of the Securities Exchange Act of 1934, as amended.

				Millions of Dollars
Period	Total Number of Shares Purchased	Average Price Paid per Share[(a)]	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs[(b)(c)]
04/01/2023-04/30/2023	9,207,162	$ 126.93	9,207,162	$ 8,957
05/01/2023-05/31/2023	10,031,513	109.88	10,031,513	7,855
06/01/2023-06/30/2023	6,596,909	111.84	6,596,909	7,117
Total	25,835,584	116.46	25,835,584	

(a) Amounts in this column reflect the weighted average price paid for shares repurchased under our share repurchase authorizations. The weighted average price includes any commissions paid to brokers during the quarter.

(b) On August 2, 2022, we announced that our board of directors had approved a $5.0 billion share repurchase authorization. On January 31, 2023, we announced that our board of directors had approved an additional $5.0 billion share repurchase authorization. On May 2, 2023, we announced that our board of directors had approved an additional $5.0 billion share repurchase authorization. These share repurchase authorizations have no expiration date.

(c) Includes the payment of any commissions paid to brokers during the quarter.

Item 5. Other Information

During the quarter ended June 30, 2023, no director or officer (as defined in Rule 16a-1(f) promulgated under the Exchange Act) of MPC adopted or terminated a “Rule 10b5-1 trading arrangement” or “non-Rule 10b5-1 trading arrangement” (as each term is defined in Item 408 of Regulation S-K).

Item 6. Exhibits

Exhibit Number	Exhibit Description	Form	Incorporated by Reference Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
3.1	Restated Certificate of Incorporation of Marathon Petroleum Corporation, dated April 26, 2023	8-K	3.2	4/27/2023	001-35054		
3.2	Amended and Restated Bylaws of Marathon Petroleum Corporation, dated October 27, 2021	10-Q	3.2	11/2/2021	001-35054		
10.1	Second Amendment to Marathon Petroleum Thrift Plan					X	
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14 and 15d-14 under the Securities Exchange Act of 1934					X	
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14 and 15d-14 under the Securities Exchange Act of 1934					X	
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350						X
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350						X
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded with the Inline XBRL document.						
101.SCH	Inline XBRL Taxonomy Extension Schema Document.					X	
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.					X	
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.					X	
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.					X	
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.					X	
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).						

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

August 1, 2023	MARATHON PETROLEUM CORPORATION
	By: /s/ C. Kristopher Hagedorn
	C. Kristopher Hagedorn Senior Vice President and Controller

Exhibit 10.1

SECOND AMENDMENT TO THE MARATHON PETROLEUM THRIFT PLAN

Pursuant to the powers of amendment reserved under Section 24.01 of the Marathon Petroleum Thrift Plan, as amended and restated effective as of January 1, 2023 (the "Plan"), the Plan is amended, effective as of June 5, 2023, as follows:

FIRST AND ONLY CHANGE

Section 21.01 is hereby amended, effective June 5, 2023, by deleting the first sentence of this Section and replacing it with the following:

Lori B. Glawe shall serve as Plan Administrator.

The Plan, as amended by the foregoing changes, is ratified and confirmed in all respects.

IN WITNESS WHEREOF, the undersigned officer has caused this Amendment to be executed effective as of the date specified above.

/s/ Fiona C. Laird

By: Fiona C. Laird

Its: Chief Human Resources Officer and
Senior Vice President Communications
Marathon Petroleum Corporation

Date Signed: June 14, 2023

Exhibit 31.1

MARATHON PETROLEUM CORPORATION

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

I, Michael J. Hennigan, certify that:

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

Date: August 1, 2023

/s/ Michael J. Hennigan

Michael J. Hennigan
President and Chief Executive Officer

Exhibit 31.2

MARATHON PETROLEUM CORPORATION

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

I, Maryann T. Mannen, certify that:

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

Date: August 1, 2023

/s/ Maryann T. Mannen
Maryann T. Mannen
Executive Vice President and Chief Financial Officer

Exhibit 32.1

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

In connection with the Quarterly Report of Marathon Petroleum Corporation (the “Company”) on Form 10-Q for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Michael J. Hennigan, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 1, 2023

/s/ Michael J. Hennigan

Michael J. Hennigan
President and Chief Executive Officer

Exhibit 32.2

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

In connection with the Quarterly Report of Marathon Petroleum Corporation (the “Company”) on Form 10-Q for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Maryann T. Mannen, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to §906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

August 1, 2023

/s/ Maryann T. Mannen

Maryann T. Mannen
Executive Vice President and Chief Financial Officer