
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

FORM 11-K

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

For the Fiscal Year Ended December 31, 2012

OR

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

Commission File No. 001-35054

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

MARATHON PETROLEUM THRIFT PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

Marathon Petroleum Corporation

539 South Main Street
Findlay, Ohio 45840

**Marathon Petroleum
Thrift Plan
Financial Statements and Supplemental Schedule**

December 31, 2012 and 2011

**Marathon Petroleum
Thrift Plan
Index
December 31, 2012 and 2011**

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Participants and Administrator of
the Marathon Petroleum Thrift Plan

We have audited the accompanying statements of net assets available for benefits of the Marathon Petroleum Thrift Plan (the Plan) as of December 31, 2012 and 2011, and the related statement of changes in net assets available for benefits for the year ended December 31, 2012. These financial statements are the responsibility of Plan management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the auditing standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by Plan management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2012 and 2011, and the changes in net assets available for benefits for the year ended December 31, 2012 in conformity with accounting principles generally accepted in the United States of America.

Our audits were performed for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedule of assets (held at end of year) is presented for the purpose of additional analysis and is not a required part of the basic financial statements but is supplementary information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974, as amended. This supplementary information is the responsibility of Plan management. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

/s/ McConnell & Jones LLP
Houston, Texas
June 24, 2013

**Marathon Petroleum
Thrift Plan
Statements of Net Assets Available for Benefits
December 31, 2012 and 2011**

	<u>2012</u>	<u>2011</u>
Assets		
Investments, at fair value	\$1,579,622,395	\$1,398,627,652
Receivables:		
Notes receivable from participants	35,270,487	34,538,363
Other	<u>3,060,273</u>	<u>1,025,205</u>
	<u>38,330,760</u>	<u>35,563,568</u>
Net Assets, at fair value	1,617,953,155	1,434,191,220
Adjustment from fair value to contract for fully benefit-responsive investment contracts	<u>(13,051,407)</u>	<u>(15,335,861)</u>
Net Assets Available for Benefits	<u>\$1,604,901,748</u>	<u>\$1,418,855,359</u>

**Marathon Petroleum
Thrift Plan
Statement of Changes in Net Assets Available for Benefits
Year Ended December 31, 2012**

Additions:

Additions to net assets attributed to:

Investment income:

Net appreciation in fair value of investments	\$ 156,680,999
Interest	7,901,239
Dividends	<u>28,588,757</u>
	<u>193,170,995</u>

Interest income from notes receivable from participants	1,147,609
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Contributions:

Participants	72,790,650
Employer	45,876,374
Rollovers and direct plan transfers	<u>39,131,377</u>
	<u>157,798,401</u>

Total additions	<u>352,117,005</u>
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Deductions:

Deductions from net assets attributed to:

Benefits paid to participants	<u>161,396,384</u>
Total deductions	<u>161,396,384</u>

Net Increase before Transfer out of Plan	190,720,621
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Transfer out of the Plan	<u>4,674,232</u>
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Net increase	186,046,389
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Net assets available for benefits:

Beginning of year	<u>1,418,855,359</u>
End of year	<u>\$1,604,901,748</u>

1. Description of the Marathon Petroleum Thrift Plan

The following brief description of the Marathon Petroleum Thrift Plan (the “Plan”) provides only general information. Participants should refer to the Summary Plan Description or the Plan document for a more complete description of the Plan’s provisions.

General

The Plan is a defined contribution thrift savings plan. The Plan covers substantially all regular and casual employees of (1) Marathon Petroleum Company LP (the “Company”), which is a wholly owned subsidiary of Marathon Petroleum Corporation and (2) employees participating in the Retirement Plan of the Company, (excluding employees of Speedway LLC, which is a separate wholly owned subsidiary of Marathon Petroleum Corporation). In order to participate in the Plan, employees must have one year of vesting service and be 21 years or older. An eligible employee may participate in the Plan by making contributions to the Plan. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974 (“ERISA”), as amended.

The Plan was created effective July 1, 2011 contingent upon the issuance of a favorable determination letter from the Internal Revenue Service as discussed in Note 10, as a spin-off of the Marathon Oil Company Thrift Plan. As a part of the spin-off agreement, the Marathon Oil Company Thrift Plan provided a transfer of assets to the Plan representing the account balances of the participants transferring to the Plan.

Contributions

Participants may elect to make contributions from 1 percent to a maximum of 18 percent of their gross pay consisting of after-tax contributions, or 1 percent to a maximum of 25 percent of their gross pay consisting of pre-tax contributions, Roth 401(k) contributions, or a combination of both. In addition, catch up contributions and Roth 401(k) catch-up contributions are allowed under the Plan, which allow for additional contributions for participants who have attained age 50 before the close of the Plan year as permitted under the Internal Revenue Code (the “Code”). An active participant may make any combination of after-tax, pre-tax, and Roth 401(k) payroll contributions provided that the participant does not exceed the maximums permitted under the Code or the limits set forth in the Plan document.

The contributions of “highly compensated employees” are subject to additional limitations pursuant to the provisions of Code Sections 401(k) and 401(m). Compensation of a participant taken into account under the Plan was limited to \$250,000 for 2012, as provided in Code Section 401(a)(17).

Participants may also make rollover contributions or direct-plan transfer contributions of qualified distributions from the qualified plans of the Company, its subsidiaries, its affiliates, and any other qualified plans or individual retirement accounts (“IRA”) upon specific authorization and subject to such terms and conditions as set forth by the Plan administrator.

To the extent that the Company has accumulated earnings and profits, the Company will match on a dollar for dollar basis each participant's after-tax, Roth 401(k), or pre-tax contributions to the Plan up to an aggregate of 7 percent of each participant's gross pay.

Valuation of Participant Accounts

Each participant's account is credited with the participant's contribution and allocations of (a) the Company's contributions and (b) Plan earnings (losses) based on the participant's relative investment holdings. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Vesting

Participants are fully and immediately vested in their contributions plus actual earnings thereon. Participants become fully vested in the Company contributions, plus actual earnings thereon, upon the earliest of the following: upon retirement under the Retirement Plan of the Company as then in effect; at death; after three years of service with the Company or a participating employer; upon attainment of age 65; or upon the termination or partial termination of the Plan.

Participant Loans

Participants may borrow from their fund accounts a minimum of \$500 up to a maximum equal to the lesser of \$50,000 or 50 percent of their vested account balance. The loans are collateralized by the balance in the participant's account and bear interest rates that currently range from 3.25 percent to 9.50 percent, determined in accordance with Plan provisions. Principal and interest is paid ratably through payroll deductions for active employees and through coupon payments for participants not receiving pay and retirees.

Payment of Benefits

On termination of service, unless a participant elects otherwise or as required by the Code, a participant will receive a lump-sum amount equal to the value of the participant's vested interest in his or her account. In general, the participant alternatively may elect to defer the commencement of benefits until a date no later than the April 1, immediately following the calendar year in which such participant attains age 70-1/2. In accordance with the provisions of the Code, mandatory distributions greater than \$1,000 require automatic rollover to an IRA for participants who fail to make an active election otherwise available under the Plan. A retired member or a spouse beneficiary member may withdraw, during any year, all or any portion of the remaining balance in his or her account subject to certain restrictions. An installment settlement option is available to retired participants, active participants (currently employed) who are at least age 70-1/2 and spouse beneficiary participants subject to certain requirements and restrictions.

Forfeitures

Non-vested participants whose services with the Company have been terminated will forfeit their entire Company-matching contribution and earnings thereon when either of the following takes place: (1) they remove their participant contributions from the Plan, or (2) they do not regain employment within five years of termination. Company contributions and earnings thereon are eligible for reinstatement, should a member be rehired prior to the limitation indicated under the Plan. Total forfeitures of \$32,990 for the year ended December 31, 2012, were used to reduce employer matching contributions made to the Plan. As of December 31, 2012, forfeited non-vested accounts totaled \$13,341. There were no forfeited non-vested amounts as of December 31, 2011.

Transfer Out of the Plan

The transfer out of the Plan shown on the statement of changes in net assets available for benefits is related to the account balances of former employees of the Company included in the Minnesota refining division asset sale to Northern Tier Energy LP who made direct transfers out of the Plan.

Investment Options

Upon enrollment in the Plan, a participant may direct employee contributions in any of the funds which are made available through the Plan.

2. Summary of Significant Accounting Policies

Basis of Accounting

The financial statements of the Plan are prepared under the accrual method of accounting in accordance with accounting principles generally accepted in the United States of America.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and changes therein and disclosure of contingent assets and liabilities. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

Investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. See Note 4 for discussion of fair value measurements.

Investment contracts held by a defined-contribution plan are required to be reported at fair value. However, contract value is the relevant measurement attribute for that portion of the net assets available for benefits of a defined contribution plan attributable to fully benefit-responsive investment contracts because contract value is the amount participants would receive if they were to initiate permitted transactions under the terms of the plan. The statements of net assets available for benefits present the fair value of the investment contracts as well as the adjustment of the fully benefit-responsive investment contracts from fair value to contract value. The statement of changes in net assets available for benefits is prepared on a contract value basis.

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date. Net appreciation includes gains and losses on investments bought and sold as well as held during the year.

Payment of Benefits

Benefits are recorded when paid.

Notes Receivable from Participants

Notes receivable from participants represent loans that are recorded at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded when it is earned. No allowance for credit losses has been recorded. Delinquent notes receivable from participants are recorded as a distribution based upon the terms of the Plan document.

Administration of Plan Assets

All costs, expenses, and fees incurred in administering the Plan, to the extent not paid by the Company, are incurred by the participants. Fees or charges for investment management services are not paid by the Company but are borne by the participants electing such services. Any taxes applicable to the participants' account are charged or credited to the participants' account by Fidelity Management Trust Company ("Fidelity" or the "Trustee").

The Stable Value Fund (the "Fund") is managed by the Trustee pursuant to a trust agreement. Any fees charged by the Trustee are deducted from the interest earned by Plan members in the Fund. The total amount of fees charged for 2012 in connection with the Fund was \$783,252.

3. Accounting Standards Update

In May 2011, the Financial Accounting Standards Board ("FASB") amended existing requirements for measuring fair value and for disclosing information about fair value measurements. This revised guidance results in a consistent definition of fair value, as well as common requirements for measurement and disclosure of fair value information between US GAAP and International Financial Reporting Standards ("IFRS"). In addition, the amendments set forth enhanced disclosure requirements with respect to recurring Level 3 measurements, nonfinancial assets measured or disclosed at fair value, transfers between levels in the fair value hierarchy, and assets and liabilities disclosed but not recorded at fair value. For the Plan, the revised fair value measurement guidance was effective for periods beginning after January 1, 2012. The adoption of the accounting standard does not impact the Plan's financial statements.

In October 2012, the FASB issued ASU 2012-04, "Technical Corrections and Improvements" ("ASU 2012-04"), which contains amendments that affect a number of topics, including technical corrections and improvements to the ASC and conforming amendments related to fair value measurements, which include clarifying the treatment of selling costs for plan investments in determining fair value of plan assets subject to ASC Topic 962, "Plan Accounting – Defined Contribution Pension Plans." These amendments are effective for public entities for interim and annual reporting periods beginning after December 15, 2012 and are not expected to have a significant effect on the Plan's financial condition.

4. Fair Value Measurements

The FASB Accounting Standards codification (ASC) 820, Fair Value Measurement and Disclosures (ASC 820) establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. There are three approaches for measuring the fair value of assets and liabilities: the market approach, the income approach and the cost approach, each of which includes multiple valuation techniques. This hierarchy consists of three broad levels:

- Level 1 inputs consist of unadjusted quoted prices in active markets for identical assets and liabilities and have the highest priority;
- Level 2 inputs consist of observable market-based inputs or unobservable inputs that are corroborated by market data, and are either directly or indirectly observable as of the measurements date;
- Level 3 inputs are unobservable inputs that are not corroborated by market data and may be used with internally developed methodologies that result in management's best estimate of fair value. These inputs have the lowest priority.

The Plan's investments are reported at fair value in the accompanying statements of net assets available for benefits, adjusted to contract value for benefit-responsive contracts. The methods used to measure fair value may produce an amount that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date. The following provides a description of the valuation techniques employed for each major Plan asset category at December 31, 2012 and 2011.

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

Common stock – Investments in common stocks are valued using a market approach at the closing price reported in an active market and is therefore considered Level 1.

Mutual funds – Investments in mutual funds including money market mutual funds are valued using a market approach at the net asset value (“NAV”) of shares held. The NAV is generally based on prices from a public exchange, which is normally the principal market on which a significant portion of the underlying investments are traded, and is considered Level 1.

Common Collective Trusts (“CCTs”) – Investment in CCTs are valued using a market approach at the NAV of units held, but investment opportunities in such funds are limited to institutional investors on behalf of defined contribution plans. A significant portion of the underlying investments are mainly publicly traded. This investment is considered Level 2.

The majority of the CCTs are Pyramis Core Lifecycle (2000, 2005, 2010, 2015, 2020, 2025, 2030, 2035, 2040, 2045, 2050 and 2055) Commingled Pools. These pools seek active return until the pool’s targeted retirement year. Thereafter, the pool’s objective will be capital preservation. These pools invest in a diversified portfolio of equity, fixed income, and/or short-term products and may use futures, options, swaps, and exchange-traded funds to remain fully invested. Each pool’s retirement date target allocation will be approximately 50 percent equity index, 40 percent fixed income index and 10 percent short term. There are no redemption restrictions on these CCTs.

The remaining CCT is the Fidelity US Equity Index Fund. The fund’s objective is to seek a return that corresponds to the total return performance of common stock publicly traded in the United States. Under normal conditions, 90% of the fund will be invested in securities of companies which compose the S&P 500 Index. The remaining portion of the fund’s assets may be in stock index futures and options and collective investment vehicles or shares of investment companies that are managed by the Trustee or its affiliates. There are currently no redemption restrictions on this CCT.

Synthetic Investment Contracts (“SICS”) – A SIC is comprised of two components, an underlying asset and a wrapper contract. The wrapper contract guarantees the SICs value. The underlying assets which are primarily invested in benefit-responsive investment contracts issued by insurance companies and other approved financial institutions, and other short-term investments are determined based on the market values of the contracts’ underlying securities plus any accrued income. Contract value represents contributions made to the fund, plus earnings, less withdrawals and transfers from the fund and administrative expenses. Wrap contracts are fair valued using a replacement cost methodology. This investment, with the exception of cash and equivalent investments, stated at cost which approximates fair value, is considered Level 2.

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

The following tables set forth by level, within the fair value hierarchy, the Plan's assets at fair value:

	Assets at Fair Value as of December 31, 2012			
	Level 1	Level 2	Level 3	Total
Mutual funds:				
Blend	\$ 288,704,604	\$	\$	\$ 288,704,604
Growth	174,060,988			174,060,988
International-Stock	28,663,599			28,663,599
Other*	96,209,421			96,209,421
Taxable Bond	167,330,512			167,330,512
Value	38,808,045			38,808,045
Money Market**	27,448,009			27,448,009
Common collective trusts		116,872,697		116,872,697
MPC Common stock	100,551,194			100,551,194
MOC Common Stock	64,369,161			64,369,161
Other - SICs	26,623,305	449,980,860		476,604,165
Total assets at fair value	<u>\$1,012,768,838</u>	<u>\$566,853,557</u>	<u>\$ —</u>	<u>\$1,579,622,395</u>

* Includes Brokerage Link investments

** Includes interest-bearing cash

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

	Assets at Fair Value as of December 31, 2011			Total
	Level 1	Level 2	Level 3	
Mutual funds:				
Blend	\$232,162,672	\$	\$	\$ 232,162,672
Growth	158,521,000			158,521,000
International-Stock	30,174,084			30,174,084
Other*	91,402,736			91,402,736
Taxable Bond	119,149,222			119,149,222
Value	53,629,244			53,629,244
Money Market**	26,001,633			26,001,633
Common collective trusts		96,144,394		96,144,394
MPC Common stock	88,826,627			88,826,627
MOC Common Stock	87,669,543			87,669,543
Other - SICs	86,574,610	328,371,887		414,946,497
Total assets at fair value	<u>\$974,111,371</u>	<u>\$424,516,281</u>	<u>\$ —</u>	<u>\$1,398,627,652</u>

* Includes Brokerage Link investments

** Includes interest-bearing cash

5. Investments

The following presents individual investments that represent 5 percent or more of the Plan's net assets available for benefits at December 31:

	2012	2011
Interest-Bearing Cash-Fidelity Institutional Cash Portfolios	\$ 27,224,964	\$ 85,038,543
Natixis Financial Products Wrapper Contract 1706-01*	98,686,129	97,904,386
State Street Bank & Trust Company Boston 111013*	98,701,052	97,912,200
Chase Manhattan Bank Wrapper Contract MARAPETRO-7-11*	133,613,725	132,555,302
American General Life Wrapper Contract 1627813 *	118,979,954	—
Fidelity Spartan 500 Index Institutional	91,259,479	66,076,185
Marathon Oil Corporation Common Stock	64,369,161	87,669,543
Marathon Petroleum Corporation Common Stock	100,551,194	88,826,627

* SICs are investments included in the Fund comprised of underlying assets and wrapper contracts (used as liquidity guarantees).

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

During 2012, the Plan's investments (including gains and losses on investments bought and sold, as well as held during the year) appreciated in value by \$ 156,680,999 as follows:

Mutual funds	\$ 75,993,240
Common/ Collective Trusts	12,781,311
MOC Common stock	3,911,666
MPC Common stock	63,994,782
	<u>\$156,680,999</u>

6. Stable Value Fund

At December 31, 2012 and 2011 the Plan held SICs of \$436,929,453 and \$313,036,026, respectively, recorded at contract value. The remaining assets of \$26,623,305 and \$86,574,610 held by the Fund at December 31, 2012 and 2011, respectively, are invested in cash equivalents and stated at cost. Ordinarily, participants may direct the withdrawal or transfer of all or a portion of their investment in the fund at contract value.

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

The following presents the fair value, adjustment to contract value, and the major credit rating of each individual wrap contract held within the Fund at December 31, 2012 and 2011:

	Fair Value	Adjustment to Contract Value	S&P Credit Rating
December 31, 2012			
Natixis Financial Products Wrapper Contract 1706-01	\$ 98,686,129	\$ (2,862,328)	A
State Street Bank & Trust Boston Wrapper Contract 111013	98,701,052	(2,862,761)	AA-
Chase Manhattan Bank Wrapper Contract MARAPETRO-7-11	133,613,725	(3,875,381)	A+
American General Life Wrapper Contract 1627813; 2.05%	<u>118,979,954</u>	<u>(3,450,937)</u>	A+
	<u>\$449,980,860</u>	<u>\$(13,051,407)</u>	
December 31, 2011			
Natixis Financial Products Wrapper Contract 1706-01	\$ 97,904,386	\$ (4,572,401)	A+
State Street Bank & Trust Boston Wrapper Contract 111013	97,912,200	(4,572,766)	AA-
Chase Manhattan Bank Wrapper Contract MARAPETRO-7-11	<u>132,555,302</u>	<u>(6,190,694)</u>	A+
	<u>\$328,371,888</u>	<u>\$(15,335,861)</u>	

The Fund's average yield for 2012 was 1.87 percent. The Fund's crediting rate at December 31, 2012 was 1.90 percent. Wrap contracts use a crediting rate formula to convert market value changes in the underlying assets into income distributions in order to minimize the difference between the market value and contract value of the underlying assets over time. Using the crediting rate formula, an estimated future market value is calculated by compounding the current market value at the current yield to maturity for a period equal to the duration of the wrapped assets. The crediting rate may be affected by many factors, including purchases and redemptions by participants, but the precise impact depends on whether the market value of the underlying assets is higher or lower than the contract value of those assets. Crediting rates are typically reset, if needed, on a monthly basis. The wrap contracts provide a guarantee that the crediting rate will not fall below zero percent.

A wrap issuer may terminate a wrap contract at any time subject to the provisions of the contract agreement. In addition, wrap contracts limit the ability of the Fund to transact at contract value upon the occurrence of certain events (including but not limited to, the complete or partial

**Marathon Petroleum
Thrift Plan
Notes to Financial Statements
December 31, 2012 and 2011**

termination of the Plan, group layoffs, early retirement programs or the Plan's failure to qualify under Section 401(a) or Section 401(k) of the Code). However, the Plan administrator believes the occurrence of these types of events is not probable at this time.

7. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500:

	Period Ended December 31, 2012	Period Ended December 31, 2011
Net assets available per the financial statements	\$1,604,901,748	\$1,418,855,359
Adjustment from fair value to contract for fully benefit-responsive investment contracts	13,051,407	15,335,861
Net assets available for benefits per the Form 5500	<u>\$1,617,953,155</u>	<u>\$1,434,191,220</u>

The following is a reconciliation of the changes in net assets available for benefits per the financial statements to the Form 5500 for the year ended December 31, 2012:

	2012
Increase in net assets available for benefits per the financial statements	\$186,046,389
Adjustment from fair value to contract value for benefit-responsive investment contracts	
Prior-year adjustment	(15,335,861)
Current year adjustment	13,051,407
Increase in net assets available for benefits per Form 5500	<u>\$183,761,935</u>

8. Party-in-Interest Transactions

Transactions involving shares of Marathon Petroleum Corporation common stock are performed by the Trustee on the open market, unless otherwise directed by the Company, in which case, shares may be bought or sold directly from Marathon Petroleum Corporation. During 2012, all shares of Marathon Petroleum Corporation stock were purchased on the open market.

Certain Plan investments are shares of mutual funds managed by Fidelity. Fidelity is the trustee as defined by the Plan and, therefore, these transactions qualify as party-in-interest.

9. Plan Termination

Although it has not expressed any interest to do so, the Company has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants will become 100 percent vested in their accounts

10. Tax Status

The Plan was established effective as of July 1, 2011 in connection with the spin-off of the Company's corporate parent, Marathon Petroleum Corporation, from its former parent company, Marathon Oil Corporation. The Plan was established as a mirror plan of the plan sponsored by Marathon Oil Corporation which covered the Company's employees prior to the spin-off. With respect to the prior plan from which the Plan was mirrored, the Internal Revenue Service ("IRS") had determined by letter dated May 7, 2003, that the prior plan met the requirements of Code Section 401(a), and was therefore a qualified plan not subject to tax under present income tax law. The Plan has not yet received its own determination letter. However, the Plan administrator and the Plan's tax counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the Code and is therefore a tax qualified plan. The Plan has applied for the IRS determination letter and has received an acknowledgement of request letter dated February 19, 2013.

GAAP requires Plan management to evaluate uncertain tax positions taken by the Plan and to recognize a tax liability (or asset) when the position is more likely than not, based on the technical merits, to be sustained upon examination by the IRS. The Plan administrator has analyzed the tax positions taken by the Plan and has concluded that as of December 31, 2012 there were no uncertain positions taken or expected to be taken that would require recognition of a liability (or asset) or disclosure in the financial statements. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress.

11. Risks and Uncertainties

The Plan provides for various investment options. These investments are exposed to various risks, such as interest rate, market and credit. Due to the level of risk associated with certain investment securities and the level of uncertainty related to changes in the value of investment securities, it is possible that changes in the near or long term could materially affect participants' account balances and the amounts reported in the statement of net assets available for benefits and the statement of changes in net assets available for benefits.

Marathon Petroleum
Thrift Plan EIN 31-1537655, Plan Number 010
Form 5500, Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
RTUN *	Marathon Petroleum Corporation	Marathon Common Stock - 1,596,051 shares	\$100,551,194
RTUP	Marathon Oil Corporation	Marathon Common Stock - 2,099,451 shares	64,369,161
Investment Trust Shares			
0009 *	Fidelity Select Consumer Staples	Investment Company - 6,994 shares	\$ 559,689
0015 *	Fidelity Ginnie Mae Fund	Investment Company - 15,236 shares	178,876
0026 *	Fidelity Investment Grade Bond Fund	Investment Company - 38,042 shares	304,337
0028 *	Fidelity Select Software	Investment Company - 2,628 shares	216,261
0032 *	Fidelity Intermediate Bond Fund	Investment Company - 97,204 shares	1,082,852
0038 *	Fidelity Capital & Income Fund	Investment Company - 140,540 shares	1,335,133
0041 *	Fidelity Select Gold	Investment Company - 27,586 shares	1,020,131
0042 *	Fidelity Select Biotechnology	Investment Company - 3,056 shares	336,115
0043 *	Fidelity Select Energy Service	Investment Company - 10,834 shares	722,613
0054 *	Fidelity Government Income Fund	Investment Company - 1,807,287 shares	19,121,092
0055 *	Fidelity Cash Reserves	Investment Company - 486,293 shares	486,293
0060 *	Fidelity Select Energy	Investment Company - 33,888 shares	1,721,843
0062 *	Fidelity Select Leisure	Investment Company - 1,134 shares	115,155
0063 *	Fidelity Select Healthcare	Investment Company - 5,911 shares	792,367
0064 *	Fidelity Select Technology	Investment Company - 4,256 shares	431,197
0066 *	Fidelity Select Financial Services	Investment Company - 3,071 shares	189,662
0067 *	Fidelity Select Defense & Aerospace	Investment Company - 10,611 shares	923,968
0068 *	Fidelity Select Brokerage	Investment Company - 2,101 shares	105,343
0069 *	Fidelity Select Chemicals	Investment Company - 4,864 shares	579,100
0301 *	Fidelity Europe	Investment Company - 2,478 shares	77,398
0302 *	Fidelity Pacific Basin Fund	Investment Company - 5,703 shares	142,348
0303 *	Fidelity Real Estate Investment	Investment Company - 44,566 shares	1,432,352
0308 *	Fidelity Convertible Securities Fund	Investment Company - 18,856 shares	488,558
0309 *	Fidelity Canada	Investment Company - 43,981 shares	2,353,433
0314 *	Fidelity Asset Manager 50%	Investment Company - 106,284 shares	1,748,377
0318 *	Fidelity Worldwide Fund	Investment Company - 8,836 shares	179,810

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value	
0321	*	Fidelity Asset Manager 70%	Investment Company - 129,173 shares	\$ 2,239,865
0328	*	Fidelity Asset Manager 20%	Investment Company - 42,656 shares	560,075
0331	*	Fidelity New Markets Income Fund	Investment Company - 63,178 shares	1,124,577
0334	*	Fidelity Global Balanced Fund	Investment Company - 8,105 shares	189,652
0336	*	Fidelity Stock Selector Small Cap	Investment Company - 13,922 shares	279,834
0338	*	Fidelity Large Cap Stock Fund	Investment Company - 4,421 shares	90,580
0340	*	Fidelity Small Cap Stock Fund	Investment Company - 37,137 shares	671,803
0341	*	Fidelity Europe Capital Appreciation Fund	Investment Company - 3,374 shares	64,166
0342	*	Fidelity Nordic Fund	Investment Company - 10,030 shares	319,969
0349	*	Fidelity Latin America Fund	Investment Company - 46,632 shares	2,159,513
0351	*	Fidelity Emerging Asia Fund	Investment Company - 64,941 shares	1,274,589
0352	*	Fidelity China Region Fund	Investment Company - 46,259 shares	1,418,305
0354	*	Fidelity Select Medical Equipment & Systems	Investment Company - 22,185 shares	618,731
0355	*	Fidelity Four-In-One Index Fund	Investment Company - 4,118 shares	120,279
0368	*	Fidelity Strategic Income Fund	Investment Company - 127,334 shares	1,447,787
0452	*	Fidelity Intermediate Gov't Income Fund	Investment Company - 26,261 shares	284,936
0455	*	Fidelity High Income Fund	Investment Company - 30,168 shares	281,773
0500	*	Fidelity Fifty	Investment Company - 11,019 shares	222,590
0505	*	Fidelity Select Medical Delivery	Investment Company - 4,181 shares	239,867
0507	*	Fidelity Select Banking	Investment Company - 12,843 shares	247,998
0509	*	Fidelity Select Materials	Investment Company - 3,328 shares	237,602
0513	*	Fidelity Select Natural Gas	Investment Company - 31,495 shares	971,616
0514	*	Fidelity Select Natural Resources	Investment Company - 22,724 shares	732,834
0630	*	Fidelity Retirement Money Market	Investment Company - 560,842 shares	560,842
0631	*	Fidelity Retirement Govt. Money Market	Investment Company - 19,165,309 shares	19,165,309
0708	*	Fidelity Stock Selector Large Cap Value Fund	Investment Company - 16,326 shares	191,343
0762	*	Fidelity Mid Cap Value Fund	Investment Company - 335,177 shares	5,966,154
0782	*	Fidelity US Equity Index Fund	Investment Company - 5,174 shares	268,588
0794	*	Fidelity Inflation-Protected Bond Fund	Investment Company - 11,112 shares	148,454

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
0814	* Fidelity Floating Rate High Income	Investment Company - 3,329 shares	\$ 33,026
0963	* Fidelity Select Wireless	Investment Company - 38,877 shares	322,288
1271	* Fidelity Blue Chip Value	Investment Company - 9,370 shares	101,568
1368	* Fidelity International Real Estate Fund	Investment Company - 11,963 shares	113,890
1388	* Fidelity Small Cap Growth	Investment Company - 12,210 shares	192,802
1520	* Spartan Total Market Index Advtg	Investment Company - 32,644 shares	1,345,904
1521	* Spartan Extended Market Index Advtg	Investment Company - 1,080,840 shares	43,136,340
1564	* Spartan Intermediate Treasury Bond Inx Advtg	Investment Company - 13,555 shares	154,261
2076	* Fidelity Growth Strategies K	Investment Company - 10,617 shares	221,150
OF1P	PIMCO Total Return Institutional	Investment Company - 5,502,570 shares	61,848,888
OF4P	PIMCO Global Bond Unhedged	Investment Company - 2,962 shares	29,681
OF5P	PIMCO High Yield	Investment Company - 28,193 shares	271,583
2077	* Fidelity Balanced K	Investment Company - 1,355,344 shares	27,337,278
2078	* Fidelity Blue Chip Growth K	Investment Company - 145,791 shares	7,156,866
2079	* Fidelity Capital Appreciation K	Investment Company - 19,233 shares	565,632
2080	* Fidelity Contrafund K	Investment Company - 765,359 shares	59,322,988
2082	* Fidelity Diversified International K	Investment Company - 89,493 shares	2,674,955
2083	* Fidelity Dividend Grade K	Investment Company - 24,363 shares	727,962
2084	* Fidelity Emerging Markets K	Investment Company - 50,297 shares	1,165,390
2085	* Fidelity Equity Income K	Investment Company - 19,415 shares	913,295
2086	* Fidelity Equity Dividend Income K	Investment Company - 348,742 shares	6,790,009
2087	* Fidelity Export and Multinational K	Investment Company - 24,090 shares	526,610
2088	* Fidelity Fund K	Investment Company - 96,121 shares	3,440,171
2089	* Fidelity Growth & Income K	Investment Company - 243,791 shares	5,178,116
2090	* Fidelity Growth Company K	Investment Company - 590,428 shares	55,075,091
2091	* Fidelity Growth Discovery K	Investment Company - 18,236 shares	283,928
2092	* Fidelity Independence K	Investment Company - 18,498 shares	479,471
2093	* Fidelity International Discovery K	Investment Company - 308,636 shares	10,178,810
2094	* Fidelity Leveraged Company Stock K	Investment Company - 106,848 shares	3,447,969

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
2095	* Fidelity Low Priced Stock K	Investment Company - 1,188,920 shares	\$46,926,657
2096	* Fidelity Magellan K	Investment Company - 115,064 shares	8,420,350
2097	* Fidelity Mid Cap Stock K	Investment Company - 62,112 shares	1,822,998
2098	* Fidelity OTC K	Investment Company - 7,590 shares	463,163
2099	* Fidelity Overseas K	Investment Company - 5,723 shares	184,516
2100	* Fidelity Puritan K	Investment Company - 18,156 shares	352,226
2102	* Fidelity Value K	Investment Company - 51,838 shares	3,959,896
2103	* Fidelity Value Discovery K	Investment Company - 30,090 shares	489,261
2324	* Spartan US Bond Index Advtg	Investment Company - 43,533 shares	517,613
2327	* Spartan 500 Index Institutional	Investment Company - 1,807,476 shares	91,259,479
2362	* Spartan International Index Inst	Investment Company - 2,103,095 shares	72,094,112
3585	* Pyramis Core Lifecycle 2055 Commingled	Investment Company - 50,184 shares	532,949
5187	* Pyramis Core Lifecycle 2000 Commingled	Investment Company - 241,535 shares	2,683,457
5188	* Pyramis Core Lifecycle 2005 Commingled	Investment Company - 98,994 shares	1,109,724
5189	* Pyramis Core Lifecycle 2010 Commingled	Investment Company - 360,107 shares	4,152,033
5190	* Pyramis Core Lifecycle 2015 Commingled	Investment Company - 981,452 shares	11,149,297
5191	* Pyramis Core Lifecycle 2020 Commingled	Investment Company - 2,068,315 shares	22,544,633
5192	* Pyramis Core Lifecycle 2025 Commingled	Investment Company - 1,653,637 shares	18,024,639
5193	* Pyramis Core Lifecycle 2030 Commingled	Investment Company - 1,570,849 shares	16,273,998
5194	* Pyramis Core Lifecycle 2035 Commingled	Investment Company - 1,076,600 shares	11,110,515
5195	* Pyramis Core Lifecycle 2040 Commingled	Investment Company - 1,160,555 shares	11,768,028
5196	* Pyramis Core Lifecycle 2045 Commingled	Investment Company - 883,594 shares	8,959,644
5197	* Pyramis Core Lifecycle 2050 Commingled	Investment Company - 831,182 shares	8,295,192
OF8F	Allianz NFJ Small-Cap Value	Investment Company - 29,559 shares	884,982
OFA2	American Adv Large Cap Value Fund	Investment Company - 14,025 shares	288,080
OFAM	Morgan Stanley Emerging Markets	Investment Company - 12,580 shares	326,317
OFAT	Columbia Acorn International Z	Investment Company - 219,636 shares	8,969,915
OFDP	FPA Crescent Portfolio	Investment Company - 60,169 shares	1,762,347
OFDQ	Rice, Hall, James Micro Cap Portfolio	Investment Company - 9,224 shares	180,051
OFEI	Ariel Fund	Investment Company - 12,537 shares	642,008

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
OFEJ	Ariel Appreciation Fund	Investment Company - 16,623 shares	\$ 681,867
OFJ7	Janus Twenty Fund	Investment Company - 6,970 shares	432,582
OFMU	Mutual Shares	Investment Company - 30,162 shares	678,035
OFMW	Morgan Stanley Mid Cap Growth	Investment Company - 283,208 shares	9,838,632
OFU3	USAA Income Fund	Investment Company - 8,367 shares	112,707
OFUV	Templeton Growth Advisor	Investment Company - 19,444 shares	377,607
OFZQ	Artisan International Fund	Investment Company - 12,086 shares	297,191
OKLZ	DFA Emerging Markets Value	Investment Company - 721,324 shares	21,524,302
OKOW	Royce Value Plus	Investment Company - 20,219 shares	281,848
OKTK	AIM Diversified Dividend	Investment Company - 56,640 shares	762,936
OKTL	American Beacon Balanced	Investment Company - 4,919 shares	69,807
OKTT	Templeton World Fund Adv	Investment Company - 24,569 shares	385,985
OKUU	Neuberger Berman Partners Inst	Investment Company - 9,254 shares	261,138
OLHV	Eaton Vance Large Cap Value	Investment Company - 305,816 shares	5,978,709
OLLF	Invesco Gbl Sm & Mid Cap Grth Inst	Investment Company - 9,425 shares	171,055
OMBS	PIMCO Real Return	Investment Company - 38,951 shares	477,924
OMJA	Managers Bond Fund	Investment Company - 23,942 shares	668,697
OMWG	The Oakmark Equity & Income Fund	Investment Company - 33,527 shares	955,514
OKWB	Wells Fargo Advantage Small Cap Value	Investment Company - 255,498 shares	8,252,599
OQFZ	Templeton Global Bond	Investment Company - 104,248 shares	1,390,668
OQFC	Vanguard Total Bond Market	Investment Company - 6,888,050 shares	76,388,478
OQNK	Vanguard Windsor Admiral	Investment Company - 145,885 shares	7,431,369
OQNZ	Neuberger Berman Genesis	Investment Company - 29,661 shares	1,445,082
OQSC	Artisan Mid Cap Value Fund	Investment Company - 8,197 shares	170,416
OQSD	Mutual Discovery	Investment Company - 37,336 shares	1,069,308
OQYK	Columbia Acorn Select Fund	Investment Company - 8,934 shares	228,434
OSCN	Calvert Social Investment Bond	Investment Company - 9,816 shares	160,195
OSEF	Templeton Foreign Advisor	Investment Company - 652,447 shares	4,430,115

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
OSEX	Rainier Small Mid Cap Equity	Investment Company - 3,313 shares	\$ 123,706
OSLV	CRM Mid Cap Value Institutional	Investment Company - 4,699 shares	144,641
OSMF	Kalmar Growth with Value Small Cap	Investment Company - 365,976 shares	5,928,804
OSXB	Templeton Developing Markets Trust	Investment Company - 8,130 shares	191,302
OUDS	Janus Worldwide I	Investment Company - 6,534 shares	313,253
OUEN	Baron Asset Inst	Investment Company - 6,906 shares	341,416
OUFG	Baron Growth Inst	Investment Company - 61,724 shares	3,336,820
OUKV	Janus Fund I	Investment Company - 75,508 shares	2,406,455

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
Stable Value Contract Carriers			
	Natixis Financial Products	Actively Managed Global Wrap**	
	Wrapper Contract 1706-01; 2.12%		
	Total Contract Value/Fair Market Value		98,686,129***
	Chase Manhattan Bank	Actively Managed Global Wrap**	
	Wrapper Contract MARAPETRO-7-11; 2.16%		
	Total Contract Value/Fair Market Value		133,613,725***
	State Street Bank & Trust Company Boston	Actively Managed Global Wrap**	
	Wrapper Contract 111013; 2.11%		
	Total Contract Value/Fair Market Value		98,701,052***
	American General Life	Actively Managed Global Wrap**	
	Wrapper Contract 1627813; 2.05%		
	Total Contract Value/Fair Market Value		118,979,954***
*	Fidelity Management Trust Company Variable interest rate - 1.87% as of 12/31/12	Interest-Bearing Cash-Fidelity Institutional Cash Portfolios; Money Market Portfolio; Class A Money Market Pool	26,623,305
	Brokerage Link	Self-Directed Brokerage Accounts	52,460,342
*	Fidelity Management Trust Company Interest rates range from 3.25%-9.50% due 1/1/13 - 12/31/2017	Loans to Plan Participants	35,270,487
	Totals		<u><u>\$1,614,892,882</u></u>

* Indicates party-in-interest.

** A SIC is comprised of two components, an underlying asset and a wrapper contract. The underlying assets are valued at representative quoted market prices. The wrapper contracts are valued by using replacement cost methodology. Contract value represents contributions made under the contract, plus earnings, less Plan withdrawals and administrative expenses. The wrapper contract guarantees the SIC contract value.

*** Pages 24 thru 34 list the fair value of each underlying investment of the SICs'. Each SIC owns approximately a 25 percent interest in the total fair value of the Fund.

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	(CASH)	Actively Managed Global Wrap Underlying Investments	\$4,856,888
	ABB FIN USA INC 1.625% 5/08/17		166,470
	AT&T INC 2.95% 5/15/16		445,070
	ABBAY NATL 3.875 11/10/14 144A		881,417
	ALLYA 2011-3 A3 0.97% 8/15		486,441
	ALLYA 2011-1 A3 1.45 1/15		295,292
	ALLYA 2011-2 A3 1.18% 4/15		303,620
	ALLYA 2011-5 A2 0.8% 6/14		150,404
	ALLYA 2012-1 A2 0.71% 9/14		282,688
	ALLYA 2012-2 A2 0.56% 10/14		290,283
	ALLYL 2012-SN1 A3 .57% 8/20/15		600,349
	AMER EXPRESS CR 3ML+85 6/24/14		1,060,700
	AMXCA 2012-2 A .68% 3/18		2,238,081
	AMER HONDA 2.5% 9/21/15 144A		439,813
	AMERICAN HONDA 1.5% 9/17 144A		463,823
	ANZ BK GRP 2.125% 1/10/14 144A		385,086
	AUSTRALIA & NZ 1.875% 10/06/17		473,489
	BB&T CORP MTN B/E 3.2% 3/15/16		445,508
	BHP BILLITON F 1% 2/24/15		434,675
	BMWLT 2011-1 A3 1.06% 2/14		316,524
	BMWLT 2012-1 A3 .75% 2/20/15		461,708
	BANK AMER 4.5% 4/1/15		193,879
	BMONT Q 2.125% 6/28/13		544,675
	BANK OF NOVA SC 2.05% 10/07/15		1,758,676
	BK NOVA SCOTIA 1.375 12/18/17		711,064
	BARCLAYS BANK 2.375% 1/13/14		1,061,886
	BSCMS 05-T18 A4 4.933% 2/42		682,995

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	BSCMS 05-PWR8 A4 4.674 6/41	Actively Managed Global Wrap Underlying Investments	\$ 478,597
	BRITISH COLMB PRO 1.2% 4/25/17		2,695,371
	BRIT COLMB PROV 2.1% 5/18/16		1,359,466
	COMM 2012-CR5 A1 0.673% 12/45		350,196
	COMM 2012-CR1 A1 1.116% 5/45		163,403
	COMM 2012-CR1 A2 2.35% 5/45		358,386
	CANADIAN IMP BK .9% 10/01/15		390,513
	CHAIT 2012-A3 A3 0 6/17		1,912,900
	CHAIT 2012-A5 A5 .59% 8/17		2,202,902
	CHAIT 2012-A8 A8 0.54% 10/17		2,896,984
	CHEVRON CORP NE 1.104% 12/5/17		881,475
	CITIGROUP 5.125 5/5/14		163,460
	CCCIT 2008-A5 A5 4.85% 4/15		1,014,274
	CCCIT 2009-A4 A4 4.9 6/16		448,060
	CCCIT 2012-A1 A1 0.55% 10/17		1,290,645
	CGCMT 2006-C5 A4 5.431 10/49		437,704
	COMM 2006-C8 A4 0 12/46		668,907
	CMMONWLTH BK 3.5% 3/19/15 144A		440,697
	COMMONWEALTH NY 1.95% 3/16/15		673,784
	COMMONWETH MTN2.9 9/17/14 144A		2,144,467
	CORNELL UNIV 4.35% 2/1/14	456,009	
	CSFB 2003-C4 A4 5.137 8/36	330,285	
	CREDIT SUISSE NY 2.2% 1/14/14	1,444,881	
	DBUBS 2011-LC3A A1 2.238 8/44	97,311	
	DCENT 2012-A1 A1 0.81% 8/17	947,465	
	DCENT 2012-A3 A 0.86% 11/15/17	1,006,932	
	EXPORT DEV CANADA 1.5% 5/15/14	280,122	
	FHLG 15YR 4.50% 8/18 #E98688	374,581	

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	FHLG 15YR 4.50% 9/18 #E99205	Actively Managed Global Wrap Underlying Investments	\$ 127,630
	FHLG 15YR 4.50% 10/18 #E99833		173,923
	FHLM ARM 3.53% 4/40 #1B4657		176,574
	FHLM ARM 3.58% 4/40 #1B4702		135,935
	FHLM ARM 4.68% 1/36 #847584		42,691
	FHLM ARM 3.88% 1/35 #848084		37,064
	FHLG 7.50% 7/34 #G02115		508,569
	FHLG 15YR 5.00% 3/19 #G13052		482,279
	FHLG 15YR 3.50% 1/26 #G14312		363,418
	FHLG 15YR 4.00% 9/25 #G14376		447,649
	FHLG 15YR 3.50% 4/27 #G14449		875,447
	FHLG 15YR 3.50% 10/26 #G14450		3,762,170
	FHLG 25YR 5.50% 7/35 #G05815		213,633
	FHLM ARM 4.941% 11/35 #1J1228		144,314
	FHLM ARM 5.37% 12/35 #1N0106		114,913
	FHLM ARM 2.98% 8/41 #1B8533		265,679
	FHLM ARM 3.07% 9/41 #1B8608		150,795
	FHLG 5.50% 3/34 #G01665		316,979
	FHLG 15YR 5.50% 4/18 #G11389		165,394
	FHLG 15YR 4.00% 9/25 #E02787		466,735
	FHLG 15YR 4.00% 4/26 #E02867		246,262
	FHLG 15YR 4.50% 11/18 #B10931		107,061
	FHLM ARM 4.199% 8/36 #848185		75,803
	FHLG 5.50% 5/34 #Z40042		2,345,297
	FHR 2417 EH 6% 2/17		31,798
	FHR 2394 KD 6% 12/16		49,177
	FNMA 0.75% 12/19/14		740,473
	FNMA 0.5% 5/27/15		1,029,742

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
		Actively Managed Global Wrap Underlying Investments	\$ 5,551,251
	FNMA 0.5% 7/02/15		3,021,617
	FNMA .5% 9/28/15		6,271,925
	FNMA .875% 10/26/17		20,672,997
	FNMA 0.875% 12/20/17		19,493,384
	FNMA .375% 12/21/15		306,696
	FNR 2011-88 AB 2.5% 9/26		763,592
	FNR 2012-15 FP 1ML+38 6/40		445,913
	FHR 3943 EF 1ML+25 2/26		460,027
	FHR 3763 QA 4% 4/34		416,260
	FHR 3820 DA 4% 11/35		2,680,163
	FHLMC 1% 9/29/17		1,853,193
	FHLMC .75% 1/12/18		64,998
	FNMA 15YR 7.00% 2/15 #253033		1,738,027
	FNMA 5.50% 11/34 #310105		18,433
	FNMA 15YR 6.50% 10/13 #323321		13,947
	FNMA 15YR 6.50% 6/14 #323794		134,049
	FNMA ARM 3.01% 8/41 #AI4358		150,020
	FNMA ARM 3.37% 9/41 #AI8935		488,248
	FNMA ARM 2.74% 8/41 #AH5259		388,886
	FNMA ARM 2.69% 9/41 #AH5260		305,762
	FNMA ARM 2.57% 10/41 #AH5261		390,366
	FNMA 15YR 3.50% 1/26 #AL1168		849,786
	FNMA 15YR 3.50% 5/27 #AL1741		628,640
	FNMA 15YR 3.50% 5/27 #AL1742		1,357,852
	FNMA 15YR 3.50% 3/27 #AL1746		311,050
	FNMA 15YR 3.50% 5/27 #AL1751		72,912
	FNMA 6.50% 7/32 #545759		

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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
		Actively Managed Global Wrap Underlying Investments	\$ 36,574
	FNMA 6.50% 7/32 #545762		49,410
	FNR 2002-56 MC 5.5% 9/17		222,558
	FNR 2003-74 PG 4.5% 8/18		279,704
	FNR 2005-90 FC 1ML+25 10/35		271,858
	FNR 2005-106 UF 1ML+30 11/35		204,090
	FHR 2866 XE 4 12/18		71,313
	FHR 2915 DC 4.5% 3/19		322,137
	FHR 3117 JF 1ML+30 2/36		196,816
	FNR 2008-29 BG 4.7% 12/35		564,884
	FNR 2008-95 AD 4.5% 12/23		236,018
	FNR 2011-23 AB 2.75% 6/25/20		970,456
	FNMA 1.625% 10/26/15		45,309
	FHR 3560 LA 2% 8/14		158,025
	FHR 3573 LC 1.85% 8/14		213,584
	FNR 2010-123 DL 3.5% 11/25		320,743
	FHR 3741 HD 3% 11/15/39		377,689
	FNR 2010-135 DE 2.25% 4/24		336,739
	FNR 2010-143 B 3.5% 12/25		511,321
	FHR 3659 EJ 3% 6/18		234,856
	FNMA 15YR 4.00% 8/18 #728852		102,111
	FNMA ARM 4.68% 11/34 #735011		36,627
	FNMA 6.50% 12/32 #735415		37,281
	FNMA 6.50% 7/35 #745092		164,891
	FNMA 15YR 4.50% 6/19 #745278		117,494
	FNMA ARM 4.53% 12/34 #802852		52,394
	FNMA 6.50% 8/36 #888034		221,761
	FNMA 6.50% 8/36 #888544		

Marathon Petroleum
Thrift Plan EIN 31-1537655, Plan Number 010
Form 5500, Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
		Actively Managed Global Wrap Underlying Investments	\$ 75,144
	FNMA 15YR 4.50% 7/20 #888653		201,337
	FNMA ARM 4.21% 5/35 #889946		231,121
	FNMA ARM 4.30% 2/35 #995017		79,503
	FNMA ARM 4.58% 7/35 #995273		184,063
	FNMA ARM 4.53% 10/35 #995414		801,385
	FNMA ARM 4.55% 10/35 #995415		210,914
	FNMA ARM 4.512% 12/36 #995606		79,608
	FNMA ARM 2.61% 4/35 #995609		250,680
	FNMA ARM 3.20% 1/40 #AC0599		80,013
	FNMA ARM 4.285% 7/33#AD0066		243,379
	FNMA 6.50% 12/35 #AD0723		196,621
	FNMA ARM 3.47% 3/40 #AD0820		194,597
	FNMA 6.50% 8/36 #AE0746		183,250
	FORDO 2009-C A4 4.43% 11/14		608,167
	FORDO 2009-D A4 2.98% 8/14		321,676
	FORDO 2011-B A3 .84% 6/15		355,443
	FORDO 2011-B A4 1.35% 12/16		271,296
	FORDL 2012-A A3 0.85% 1/15		632,394
	FORDO 2012-B A3 0.72% 12/15/16		220,178
	FORDL 2012-B A2 0.54% 11/14		540,646
	FORDL 2012-B A3 0.57% 9/15		549,897
	FORDO 2012-D A3 0.51% 4/17		758,036
	GEMNT 2012-1 A 1.03% 1/18		2,019,072
	GEMNT 2012-5 A 0.97% 6/15/18		415,306
	GMACC 2004-C2 A4 5.301% 8/38		203,817
	GMACC 2003-C2 A2 CSTR 5/40		285,704
	GSMS 2011-GC5 A1 CSTR 8/44		

Marathon Petroleum
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Form 5500, Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	GSMS 2012-GC6 A1 1.282% 1/45	Actively Managed Global Wrap Underlying Investments	\$ 127,495
	GSMS 04-GG2 A6 CSTR 8/38		466,905
	GSMS 2005-GG4 A3 4.607 7/39		8,944
	GSMS 2006-GG6 A2 5.506% 4/38		94,582
	GSMS 2006-GG8 A2 5.479 11/39		276,045
	GECMC 2005-C2 A4 CSTR 5/43		1,123,066
	GECMC 2006-C1 A4 CSTR 3/44		641,995
	GE-CORP .85% 10/09/15		493,641
	GE CAP MTN 3.5% 6/29/15		523,931
	GE CAP CORP 2.25% 11/9/15		402,957
	GENERAL ELEC 2.95% 5/09/16		122,654
	GOLDMAN SACHS MTN 3.7% 8/1/15		334,067
	GOLDMAN SAC GRP 3.625% 2/07/16		317,541
	GNR 2010-99 PT 3.5% 8/33		224,721
	GNR 2010-112 PM 3.25% 9/33		182,942
	CFGNR 2011-150 D 3% 4/37		287,167
	GNR 2012-149 MF 1ML+25 12/42		1,502,099
	G2SF 12-149 LF 1ML+25 12/42		630,783
	CANADA GOVT .875% 2/14/17		707,773
	HAROT 2011-3 A2 1 4/14		211,030
	HAROT 2010-1 A4 1.98% 5/23/16		153,654
	HAROT 2010-3 A3 .7% 4/14		174,324
	HAROT 2012-2 A3 0.7% 2/16		522,978
	HAROT 2011-1 A4 1.8% 4/17		224,940
	HAROT 2011-2 A3 0.94% 3/15		437,503
	HSBC BANK 3.1% 5/24/16 144A		886,313
	HART 2011-A A3 1.44 4/15		376,864

Marathon Petroleum
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(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
		Actively Managed Global Wrap Underlying Investments	\$ 51,134
	HART 09-A A4 3.15% 3/16		615,990
	ING BANK NV 2% 10/18/13 144A		609,280
	JPMORGAN CHASE 3.15% 7/05/16		156,640
	JPMCC 03-CB7 A4 CSTR 1/38		38,802
	JPMCC 2003-C1 A2 4.985 1/37		226,249
	JPMCC 2005-LDP2 A3 4.697 7/42		194,166
	JPMCC 2005-LDP5 A2 5.198 12/44		109,838
	JPMCC 2007-LDPX A2S 5.305 1/49		218,392
	JPMCC 2007-LD11 A2 CSTR 6/49		428,786
	JPMCC 2012-C6 A2 2.2058% 5/45		161,356
	LBUBS 2006-C6 A4 5.372% 9/39		83,324
	LBUBS 2003-C3 A4 4.166 5/32		416,884
	LBUBS 2004-C8 4.799% 12/29		192,438
	LBUBS 2004-C2 A3 3.973% 3/29		150,690
	LBUBS 2005-C1 AAB CSTR 2/30		119,892
	LBUBS 2007-C6 A2 5.845 7/40		41,858
	MVCOT 2006-2A A 5.417% 10/28		891,890
	MASSMUTUAL GLB 3.125 4/16 144A		451,452
	MASSMUTUAL GLBL 2% 4/5/17 144A		499,874
	MBART 2011-1 A3 0.85% 3/15		28,542
	MLMT 2004-KEY2 A2 4.166% 8/39		641,221
	MET LIFE GLBL 2.5 9/29/15 144A		136,407
	MICROSOFT CORP .875% 11/15/17		1,881,222
	MLCFC 2006-3 A4 CSTR 7/46		160,901
	MONUMENTAL GLBL 5.5% 4/13 144A		64,188
	MSC 03-IQ4 A2 4.07 5/40		151,798
	MSC 03-T11 A4 5.15 6/41		

Marathon Petroleum
Thrift Plan EIN 31-1537655, Plan Number 010
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Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	MORGAN STANLEY 2.875% 7/28/14	Actively Managed Global Wrap Underlying Investments	\$ 176,853
	MORGAN STANL MTN 4.2% 11/20/14		104,817
	MORGAN STANLEY 4.1% 1/26/15		221,501
	MSBAM 2012-C5 A1 .916% 8/45		425,337
	MSBAM 2012-C5 A2 1.972% 8/45		758,081
	NCUA GTD NTS MA 1.4% 6/12/15		586,103
	NATIONAL AUSTR NY BR 2% 3/9/15		447,054
	NATIONAL AUSTR 1.6% 8/07/15		679,193
	NATIONAL BANK CA 1.5% 6/26/15		560,555
	NEW YORK LIFE 1.3% 10/17 144A		1,206,942
	NALT 2010-B A3 1% 12/15/13		148,855
	NALT 2010-B A4 1.27% 10/16		193,666
	NALT 2 11-A ABS 1.04% 8/15/14		632,278
	NALT 2011-B A3 0.92% 2/15		301,331
	NAROT 2010-A A3 0.87 7/14		232,407
	NAROT 2011-A A3 1.18% 2/15		355,818
	NORDEA BK AG 1.75 10/4/13 144A		619,323
	NEF 2005-1 A5 4.74% 10/45		182,013
	OCCIDENTAL PETRO 1.5% 2/15/18		423,434
	PNCFUND MTN 3.625% 2/8/15		498,919
	PROCTER & GAMBLE 1.8% 11/15/15		389,516
	ROYAL BK CANADA 1.125 1/15/14	154,826	
	ROYAL BK CDA GBL .8% 10/30/15	460,056	
	ROYAL BK CANADA 2.3% 7/20/16	188,331	
	ROYAL BK CANADA 1.45% 10/30/14	659,729	
	ROYAL BK SCOT 4.875 8/14 144A	1,106,986	
	SLMA 2012-7 A2 1ML+28 9/19	399,744	

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Form 5500, Schedule H, Line 4i – Schedule of Assets (Held at End of Year)
Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	SVOVM 2005-A A 5.25% 2/21	Actively Managed Global Wrap Underlying Investments	\$ 49,434
	SANOFI AVENTIS 2.625% 3/29/16		459,593
	SUMITOMO BKG 1.9% 1/12/15 144A		421,857
	TARGET CORP 1.125% 7/18/14		200,934
	TORONTO DOM BK 2.5% 7/14/16		892,159
	TORONTO DOMINI 2.375% 10/19/16		422,112
	TOTAL CAP CDA 1.625% 1/28/14		431,714
	TOTAL CAPITAL SA 1.5% 2/17/17		448,764
	TOYOTA MOTOR CRD 1.25% 10/5/17		706,810
	UBSBB 2012-C2 A1 1.006% 5/63		377,952
	UBSCM 2012-C1 A1 1.032% 5/45		235,545
	UBSCM 2012-C1 A2 2.180% 5/45		376,627
	UBSBB 2012-C4 A1 .6728 12/45		299,876
	USAA CAPITAL 1.05% 9/14 144A		477,376
	USAA CAP CO 2.25% 12/13/16 144		425,916
	UNION BK NA 3% 6/6/16		913,033
	USTN 1.75% 7/31/15		69,154,894
	USTN 1% 9/30/16		26,004,410
	USTN .375% 11/15/14		97,542,129
	USTN .875% 11/30/16		1,211,513
	USTN .375% 3/15/15		17,200,494
	USTN .875% 4/30/17	21,285,834	
	USTN .750% 6/30/17	21,410,009	
	VERIZON WIRELESS 5.55% 2/1/14	887,263	
	VALET 2011-1 A3 1.22% 6/15	1,018,902	
	VWALT 2010-A A3 0.99% 11/13	78,501	
	VWALT 2011-A A2 1% 2/14	106,290	

Marathon Petroleum
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Year Ended December 31, 2012

(a)	(b) Identity of Issue, Borrower Lessor or Similar Party	(c) Description of Investment	(d) Current Value
	VALET 2012-1 A2 .61 10/14	Actively Managed Global Wrap Underlying Investments	\$ 279,721
	WFRBS 2011-C5 A1 1.456 11/44		113,177
	WFRBS 2012-C8 A1 .864% 8/45		240,889
	WFRBS 2012-C8 A2 1.881% 8/45		423,336
	WBCMT 2006-C23 A5 CSTR 1/45		851,503
	WBCMT 2006-C25 A5 CSTR 5/43		231,360
	WBCMT 05-C16 APB 4.692% 10/41		156,929
	WBCMT 2003-C9 A4 5.012 12/35		487,774
	WBCMT 2007-C31A A2 5.421% 4/47		343,919
	WELLS FARGO MTN 3.625% 4/15/15		271,883
	WELLS FARGO & CO 1.25% 2/13/15		1,343,691
	WELLS FARGO&COM 3.676% 6/15/16		203,046
	WESTPAC BANK CORP 2.1% 8/2/13		247,451
	WESTPAC BK CORP 1.85% 12/09/13		802,423
	WESTPAC BANKING CRP 2% 8/14/17		830,886
	WESTPAC BANKING 1.125% 9/25/15		912,988
	WOART 2012-A A3 0.64% 2/17		571,438
	WOART 2011-A A3 1.49% 10/14		354,108
	WOLS 2012-A A3 0.93% 11/15		282,025
	YALE UNIV MTN 2.9% 10/15/14		360,007
	Total Fair Value of Underlying Investments		\$449,980,860

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Marathon Petroleum Thrift Plan

Date: June 26, 2013

By: /s/ Rodney P. Nichols

Rodney P. Nichols
Plan Administrator

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-175245 of Marathon Petroleum Corporation on Form S-8 of our report related to the financial statements and supplemental schedule of the Marathon Petroleum Thrift Plan dated June 24, 2013, appearing in this Annual Report on Form 11-K for the year ended December 31, 2012.

/s/ McConnell & Jones LLP

Houston, Texas
June 24, 2013