

MainStay VP Natural Resources Portfolio

Message from the President and Semiannual Report

Unaudited | June 30, 2023

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INVESTMENTS

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Message from the President

Despite high levels of volatility and sharp, short-term shifts in value, broadly based stock and bond indices generally gained ground during the six-month reporting period ended June 30, 2023. Markets reacted positively to several developments – easing inflationary pressures and softening monetary policy – the most prominent among them.

At the start of the reporting period, high levels of inflation had already begun to show signs of easing in the face of aggressive rate hikes by the U.S. Federal Reserve (the “Fed”). From a peak of 9.06% in June 2022, the annualized U.S. inflation rate as measured by the Consumer Price Index fell to 6.41% in January 2023, and to 2.97% in June 2023, according to the most recent figures. At the same time, the Fed increased the benchmark federal funds rate, from 4.25%–4.50% at the beginning of the reporting period, to 5.00%–5.25% as of June 30, 2023. While the Fed signaled that further rate increases were likely in 2023, the Fed also appeared to be approaching the end of its current rate-hike cycle. Economic growth, although slower, remained positive, supported by historically high levels of employment and robust consumer spending. On a negative note, rising interest rates contributed to the failures of a number of high-profile regional banks in March and April 2023, leading to a wider loss of confidence in the banking industry, and increasing the prospect of a tighter credit environment, although swift federal action to guarantee deposits appeared to limit the damage.

Equity market behavior during the reporting period generally reflected investors’ optimism regarding the prospects for a so-called “soft landing,” in which inflation comes under control and the Fed holds rates steady—or begins to lower them—while the economy avoids a severe recession. The S&P 500[®] Index, a widely regarded benchmark of U.S. market performance, posted its first extended gains since November 2021. Previously beaten down growth-oriented shares led the market’s rebound, with information technology the S&P 500[®] Index’s strongest sector, followed by consumer discretionary. However, the communications

services, utilities and energy sectors lost substantial ground as value-oriented stocks fell out of favor and oil prices declined, with financials and health care shares dipping more mildly. While international markets rose, they generally trailed the U.S. market, with developed international markets outperforming their emerging markets counterparts.

Corporate bond prices trended moderately higher amid high volatility, bolstered by positive inflationary and interest rate trends in the United States while constrained by banking industry turmoil. After years of low yields and tight credit spreads, the sector benefited from more attractive valuations and income opportunities. Markets generally rewarded longer duration and lower credit quality, although an uptick in default rates posed added risks for high-yield corporate bonds. Long-term rates remained lower than short-term rates throughout the reporting period, a yield curve inversion that reminded investors of the uncertainties implicit in the current economic environment. U.S. Treasury bonds provided more modest gains, with the positive impact of declining inflation largely balanced by the negative impact of high consumer prices.

However the economic story unfolds in the months and years to come, we remain dedicated to providing you with the long-term focus, unique perspectives and commitment to client service you expect.

Thank you for trusting us to help meet your investment needs.

Sincerely,



Kirk C. Lehneis
President

The opinions expressed are as of the date of this report and are subject to change. There is no guarantee that any forecast made will come to pass. This material does not constitute investment advice and is not intended as an endorsement of any specific investment. Past performance is no guarantee of future results.

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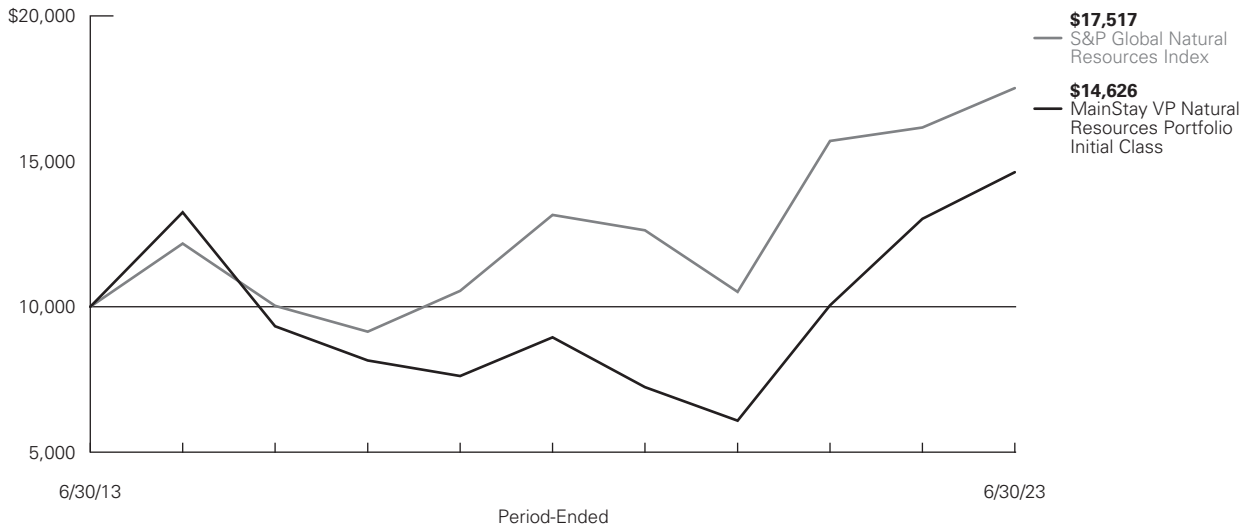
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Investors should refer to the Portfolio's Summary Prospectus and/or Prospectus and consider the Portfolio's investment objectives, strategies, risks, charges and expenses carefully before investing. The Summary Prospectus and/or Prospectus contain this and other information about the Portfolio. You may obtain copies of the Portfolio's Summary Prospectus, Prospectus and Statement of Additional Information, which includes information about the MainStay VP Funds Trust's Trustees, free of charge, upon request, by calling toll-free 800-598-2019, by writing to New York Life Insurance and Annuity Corporation, 51 Madison Avenue, Room 251, New York, New York 10010 or by sending an email to MainStayShareholdersServices@nylim.com. These documents are also available at newyorklifeinvestments.com/investment-products/vp. Please read the Portfolio's Summary Prospectus and/or Prospectus carefully before investing. MainStay VP Funds Trust portfolios are separate account options which are purchased through a variable insurance or variable annuity contract.

Investment and Performance Comparison (Unaudited)

Performance data quoted represents past performance. Past performance is no guarantee of future results. Because of market volatility and other factors, current performance may be lower or higher than the figures shown. Investment return and principal value will fluctuate, and as a result, when shares are redeemed, they may be worth more or less than their original cost. The performance table and graph do not reflect any deduction of sales charges, mortality and expense charges, contract charges or administrative charges. Please refer to the Performance Summary appropriate for your policy. For performance information current to the most recent month-end, please call 800-598-2019 or visit www.newyorklife.com.

Performance figures may reflect certain fee waivers and/or expense limitations, without which total returns may have been different. For information on current fee waivers and/or expense limitations (if any), please refer to the Notes to Financial Statements.



Average Annual Total Returns for the Period-Ended June 30, 2023¹

Class	Inception Date ²	Six Months ³	One Year	Five Years	Ten Years	Gross Expense Ratio ⁴
Initial Class Shares	2/17/2012	-2.86%	12.31%	10.33%	3.88%	0.83%

- The Portfolio replaced its subadvisor and modified its principal investment strategies as of November 30, 2018. Therefore, the performance information shown in this report prior to November 30, 2018 reflects the Portfolio's prior subadvisor, investment objective and principal investment strategies.
- Due to an organizational restructuring, the portfolio managers from Mellon Investments Corporation who managed the day-to-day operations of the Portfolio transitioned to Newton Investment Management North America, LLC as of September 1, 2021. The past performance in the graph and table prior to that date reflects the Portfolio's prior subadvisor.
- Not annualized.
- The gross expense ratios presented reflect the Portfolio's "Total Annual Portfolio Operating Expenses" from the most recent Prospectus and may differ from other expense ratios disclosed in this report.

Benchmark Performance*	Six Months ¹	One Year	Five Years	Ten Years
S&P Global Natural Resources Index ²	-3.11%	8.37%	5.89%	5.77%
Morningstar Natural Resources Category Average ³	2.96	11.13	7.29	5.76

* Returns for indices reflect no deductions for fees, expenses or taxes, except for foreign withholding taxes where applicable. Results assume reinvestment of all dividends and capital gains. An investment cannot be made directly in an index.

- Not annualized.
- The Portfolio has selected the S&P Global Natural Resources Index as its primary benchmark. The S&P Global Natural Resources Index includes 90 of the largest publicly-traded companies in natural resources and commodities businesses that meet specific investability requirements, offering investors diversified and investable equity exposure across 3 primary commodity-related sectors: agribusiness, energy, and metals & mining.
- The Morningstar Natural Resources Category Average is representative of funds that invest primarily on commodity-based industries such as energy, chemicals, minerals, and forest products in the United States or outside of the United States. Some funds invest across this spectrum to offer broad natural-resources exposure. Others concentrate heavily or even exclusively in specific industries. Funds that concentrate primarily in energy-related industries are part of the equity energy category. Results are based on average total returns of similar funds with all dividends and capital gain distributions reinvested.

Cost in Dollars of a \$1,000 Investment in MainStay VP Natural Resources Portfolio (Unaudited)

The example below is intended to describe the fees and expenses borne by shareholders during the six-month period from January 1, 2023 to June 30, 2023, and the impact of those costs on your investment.

Example

As a shareholder of the Portfolio you incur two types of costs: (1) transaction costs, including exchange fees and sales charges (loads) on purchases (as applicable), and (2) ongoing costs, including management fees and other Portfolio expenses (as applicable). This example is intended to help you understand your ongoing costs (in dollars) of investing in the Portfolio and to compare these costs with the ongoing costs of investing in other mutual funds. The example is based on an investment of \$1,000 made at the beginning of the six-month period and held for the entire period from January 1, 2023 to June 30, 2023. Shares are only sold in connection with variable life and annuity contracts and the example does not reflect any contract level or transactional fees or expenses. If these costs had been included, your costs would have been higher.

This example illustrates your Portfolio's ongoing costs in two ways:

Actual Expenses

The second and third data columns in the table below provide information about actual account values and actual expenses. You may use the information in these columns, together with the amount you invested, to estimate the expenses that you paid during the six months ended June

30, 2023. Simply divide your account value by \$1,000 (for example, an \$8,600 account value divided by \$1,000 = 8.6), then multiply the result by the number under the heading entitled "Expenses Paid During Period" to estimate the expenses you paid on your account during this period.

Hypothetical Example for Comparison Purposes

The fourth and fifth data columns in the table below provide information about hypothetical account values and hypothetical expenses based on the Portfolio's actual expense ratio and an assumed rate of return of 5% per year before expenses, which is not the Portfolio's actual return. The hypothetical account values and expenses may not be used to estimate the actual ending account balances or expenses you paid for the six-month period shown. You may use this information to compare the ongoing costs of investing in the Portfolio with the ongoing costs of investing in other mutual funds. To do so, compare this 5% hypothetical example with the 5% hypothetical examples that appear in the shareholder reports of the other mutual funds.

Please note that the expenses shown in the table are meant to highlight your ongoing costs only and do not reflect any transactional costs, such as exchange fees or sales charges (loads). Therefore, the fourth and fifth data columns of the table are useful in comparing ongoing costs only and will not help you determine the relative total costs of owning different funds. In addition, if these transactional costs were included, your costs would have been higher.

Share Class	Beginning Account Value 1/1/23	Ending Account Value (Based on Actual Returns and Expenses) 6/30/23	Expenses Paid During Period ¹	Ending Account Value (Based on Hypothetical 5% Annualized Return and Actual Expenses) 6/30/23	Expenses Paid During Period ¹	Net Expense Ratio During Period ²
Initial Class Shares	\$1,000.00	\$971.40	\$4.11	\$1,020.63	\$4.21	0.84%

- Expenses are equal to the Portfolio's annualized expense ratio of each class multiplied by the average account value over the period, divided by 365 and multiplied by 181 (to reflect the six-month period). The table above represents the actual expenses incurred during the six-month period. In addition to the fees and expenses which the Portfolio bears directly, it also indirectly bears a pro rata share of the fees and expenses of the underlying funds in which it invests. Such indirect expenses are not included in the above-reported expense figures.
- Expenses are equal to the Portfolio's annualized expense ratio to reflect the six-month period.

Country Composition as of June 30, 2023 (Unaudited)

United States	60.8%	Chile	1.7%
Canada	16.0	Brazil	1.4
Australia	4.9	Monaco	0.7
Netherlands	4.8	Other Assets, Less Liabilities	<u>-0.9</u>
United Kingdom	4.3		<u>100.0%</u>
Norway	3.5		
Zambia	2.8		

See Portfolio of Investments beginning on page 10 for specific holdings within these categories. The Portfolio's holdings are subject to change.

Top Ten Holdings and/or Issuers Held as of June 30, 2023 (excluding short-term investments)
(Unaudited)

1. Shell plc	6. Freeport-McMoRan, Inc.
2. Hess Corp.	7. BP plc
3. Teck Resources Ltd., Class B	8. Weatherford International plc
4. Occidental Petroleum Corp.	9. Transocean Ltd.
5. Schlumberger NV	10. Cameco Corp.

Portfolio Management Discussion and Analysis (Unaudited)

Answers to the questions reflect the views of portfolio manager Albert Chu, CFA, Brock Campbell, CFA, and David S. Intoppa, CFA of Newton Investment Management North America, LLC, the Portfolio's Subadvisor.

How did MainStay VP Natural Resources Portfolio perform relative to its benchmark and peers during the six months ended June 30, 2023?

For the six months ended June 30, 2023, MainStay VP Natural Resources Portfolio returned -2.86% for Initial Class shares. Over the same period, Initial Class shares of the Portfolio outperformed the -3.11% return of the S&P Global Natural Resources Index (the "Index"), which is the Portfolio's benchmark, and underperformed the 2.96% return of the Morningstar Natural Resources Category Average.¹

What factors affected the Portfolio's relative performance during the reporting period?

During the reporting period, overweight exposure to the energy sector detracted from the Portfolio's performance relative to the Index, as investors discounted a slowdown in demand owing to a potential global recession and resilient supply.

Which sectors were the strongest contributors to the Portfolio's relative performance and which sectors were particularly weak?

The reporting period was marked by fears of a global recession, an economic slowdown and China's tepid reopening from COVID-19 lockdowns. The subsectors perceived to be levered to these exposures, such as oil and base metals, lagged. Agriculture, while generally more recession-resilient, also lagged on higher planted acreages and little disruption in the early planting season. Subsectors that outperformed were generally driven by more idiosyncratic factors, such as uranium price strength (low macro dependency), natural gas price strength (also low macro dependency) and the international oilfield services recovery.

During the reporting period, which individual stocks made the strongest positive contributions to the Portfolio's absolute performance and which stocks detracted the most?

The strongest positive contributions to the Portfolio's absolute performance during the reporting period came from uranium miner Cameco, offshore oil & gas drilling services provider Transocean, and energy drilling equipment company Weatherford International. (Contributions take weightings and total returns into account.) Cameco shares advanced as investors began to focus on expected tightness in the uranium market. Transocean shares benefited as day rates for offshore rigs rallied at the onset of an offshore upcycle. Weatherford International shares rose as the international oilfield capital expenditure cycle continued to recover.

The most significant detractors from the Portfolio's absolute performance during the same period included positions in aluminum producer Alcoa and fertilizer companies Nutrien and CF Industries Holdings. Alcoa shares lagged as investors grew

increasingly concerned over the prospect of a global recession, in addition to the pace and sustainability of China's reopening. Nutrien shares declined as fertilizer prices continued to drift downward and grain prices were pressured by a robust harvest outlook. CF Industries shares weakened as global nitrogen prices fell, owing to lower natural-gas prices; however, we remain constructive on the firm's prospects, as the company's U.S. assets remain advantaged in their natural gas feedstock.

Did the Portfolio make any significant purchases or sales during the reporting period?

Key additions to the Portfolio during the reporting period included new positions in U.K.-based integrated oil & gas company BP, Australia-based diversified mining company South32 and Australia-based mineral miner Pilbara Minerals. The addition of BP reflected our positive view of the company's shareholder return program and its valuation discount relative to other integrated oil companies. The position in South32 brought significant exposure to aluminum and other energy-transition metals. Pilbara Minerals appeared positioned to benefit as the lithium market recovers from oversupply.

During the same period, the Portfolio eliminated its entire positions in South Africa-based gold miner Sibanye Stillwater, U.S.-based oil & gas equipment & services provider NexTier Oilfield Solutions and U.S.-based oil & gas contract drilling company Patterson-UTI Energy in favor of more compelling risk/reward opportunities.

How did the Portfolio's subsector and subindustry weightings change during the reporting period?

During the reporting period, the Portfolio maintained its overweight exposure to energy relative to the Index. We added exposure to select metals-and-mining companies and maintained the Portfolio's underweight exposure to agriculture.

How was the Portfolio positioned at the end of the reporting period?

As of June 30, 2023, we continue to hold strong conviction in the natural resources sector and foresee a tight supply/demand environment in the coming years. Inflation has started to permeate the global economy, and we believe the supply response will take some time to alleviate inflationary pressures. The rise of environmental, social and governance (ESG) concerns are likely to continue to distort price signals to commodity producers, thereby exacerbating supply shortfalls. We believe that the potential impact of a recession on the Portfolio's commodity holdings has been exaggerated by the market, especially as the Chinese economy reopens. Our analysis suggests that demand impacts to energy and metals, the Portfolio's major overweight positions, should be relatively moderate.

1. See page 5 for more information on benchmark and peer group returns.

In this environment, the Portfolio's investment process and style remains unchanged. We continue to seek investments in areas where the commodity macroeconomic and company-specific factors are aligned. In our opinion, the natural resources sector remains one of the best sources of overall portfolio diversification, inflation protection and dividend yield generation.

The opinions expressed are those of the portfolio managers as of the date of this report and are subject to change. There is no guarantee that any forecasts will come to pass. This material does not constitute investment advice and is not intended as an endorsement of any specific investment.

Not all MainStay VP Portfolios and/or share classes are available under all policies.

Portfolio of Investments June 30, 2023[†](Unaudited)

	Shares	Value		Shares	Value
Common Stocks 99.1%			United States 59.0%		
Australia 4.9%			Alcoa Corp. (Metals & Mining)		
Lynas Rare Earths Ltd. (Metals & Mining) (a)	354,371	\$ 1,617,040	203,846	\$	6,916,495
Pilbara Minerals Ltd. (Metals & Mining)	1,472,525	4,796,711	Archer-Daniels-Midland Co. (Food Products)		
South32 Ltd. (Metals & Mining)	2,372,999	5,943,708	48,360		3,654,082
Woodside Energy Group Ltd. (Oil, Gas & Consumable Fuels)	232,541	5,335,003	99,968		9,431,981
		<u>17,692,462</u>	162,297		11,266,658
			195,718		7,220,037
Brazil 1.4%			Chesapeake Energy Corp. (Oil, Gas & Consumable Fuels)		
Adecoagro SA (Food Products) (b)	542,177	5,074,777	60,019		5,022,390
			ConocoPhillips (Oil, Gas & Consumable Fuels)		
			70,571		7,311,861
			Corteva, Inc. (Chemicals)		
			103,796		5,947,511
			Darling Ingredients, Inc. (Food Products) (a)		
			38,693		2,468,226
			Energy Fuels, Inc. (Oil, Gas & Consumable Fuels) (a)(b)		
			495,259		3,090,416
			Energy Recovery, Inc. (Machinery) (a)		
			73,470		2,053,486
			EOG Resources, Inc. (Oil, Gas & Consumable Fuels)		
			85,711		9,808,767
			EQT Corp. (Oil, Gas & Consumable Fuels)		
			289,653		11,913,428
			Fluor Corp. (Construction & Engineering) (a)		
			247,414		7,323,454
			Freeport-McMoRan, Inc. (Metals & Mining)		
			410,519		16,420,760
			Halliburton Co. (Energy Equipment & Services)		
			144,265		4,759,302
			Hess Corp. (Oil, Gas & Consumable Fuels)		
			126,322		17,173,476
			Marathon Petroleum Corp. (Oil, Gas & Consumable Fuels)		
			94,489		11,017,417
			Mosaic Co. (The) (Chemicals)		
			112,265		3,929,275
			NOV, Inc. (Energy Equipment & Services)		
			172,833		2,772,241
			Occidental Petroleum Corp. (Oil, Gas & Consumable Fuels)		
			282,636		16,618,997
			Schlumberger NV (Energy Equipment & Services)		
			334,588		16,434,963
			Transocean Ltd. (Energy Equipment & Services) (a)(b)		
			2,084,484		14,612,233
			Weatherford International plc (Energy Equipment & Services) (a)		
			222,904		14,805,284
					<u>211,972,740</u>
			Zambia 2.8%		
			First Quantum Minerals Ltd. (Metals & Mining)		
			431,091		10,198,447
			Total Common Stocks		
					<u>356,294,269</u>
					(Cost \$323,034,436)
Canada 16.0%					
Cameco Corp. (Oil, Gas & Consumable Fuels)	429,843	13,466,981			
Capstone Copper Corp. (Metals & Mining) (a)	852,075	3,865,613			
Ivanhoe Mines Ltd., Class A (Metals & Mining) (a)	842,828	7,698,221			
Li-Cycle Holdings Corp. (Commercial Services & Supplies) (a)(b)	82,629	458,591			
NexGen Energy Ltd. (Oil, Gas & Consumable Fuels) (a)	1,285,770	6,066,097			
Nutrien Ltd. (Chemicals)	148,383	8,762,016			
Teck Resources Ltd., Class B (Metals & Mining)	407,174	17,142,026			
		<u>57,459,545</u>			
Chile 1.7%					
Antofagasta plc (Metals & Mining)	327,412	6,075,031			
Monaco 0.7%					
Scorpio Tankers, Inc. (Oil, Gas & Consumable Fuels)	52,485	2,478,867			
Netherlands 4.8%					
Shell plc (Oil, Gas & Consumable Fuels)	582,444	17,327,563			
Norway 3.5%					
Equinor ASA, Sponsored ADR (Oil, Gas & Consumable Fuels)	252,914	7,387,618			
Frontline plc (Oil, Gas & Consumable Fuels)	177,922	2,585,207			
Norsk Hydro ASA (Metals & Mining)	422,489	2,511,254			
		<u>12,484,079</u>			
United Kingdom 4.3%					
BP plc (Oil, Gas & Consumable Fuels)	2,668,036	15,530,758			

	Shares	Value
Short-Term Investments 1.8%		
Affiliated Investment Company 0.9%		
United States 0.9%		
MainStay U.S. Government Liquidity Fund, 5.06% (c)	3,036,970	\$ 3,036,970
Unaffiliated Investment Company 0.9%		
United States 0.9%		
Invesco Government & Agency Portfolio, 5.158% (c)(d)	3,381,600	3,381,600
Total Short-Term Investments (Cost \$6,418,570)		6,418,570
Total Investments (Cost \$329,453,006)	100.9%	362,712,839
Other Assets, Less Liabilities	(0.9)	(3,189,970)
Net Assets	100.0%	\$ 359,522,869

† Percentages indicated are based on Portfolio net assets.

^ Industry and country classifications may be different than those used for compliance monitoring purposes.

(a) Non-income producing security.

(b) All or a portion of this security was held on loan. As of June 30, 2023, the aggregate market value of securities on loan was \$8,002,100; the total market value of collateral held by the Portfolio was \$8,174,854. The market value of the collateral held included non-cash collateral in the form of U.S. Treasury securities with a value of \$4,793,254. The Portfolio received cash collateral with a value of \$3,381,600. (See Note 2(l))

(c) Current yield as of June 30, 2023.

(d) Represents a security purchased with cash collateral received for securities on loan.

Investments in Affiliates (in 000's)

Investments in issuers considered to be affiliate(s) of the Portfolio during the six-month period ended June 30, 2023 for purposes of Section 2(a)(3) of the Investment Company Act of 1940, as amended, were as follows:

Affiliated Investment Companies	Value, Beginning of Period	Purchases at Cost	Proceeds from Sales	Net Realized Gain/(Loss) on Sales	Change in Unrealized Appreciation/ (Depreciation)	Value, End of Period	Dividend Income	Other Distributions	Shares End of Period
MainStay U.S. Government Liquidity Fund	\$ 1,917	\$ 59,052	\$ (57,932)	\$ —	\$ —	\$ 3,037	\$ 56	\$ —	3,037

Abbreviation(s):

ADR—American Depositary Receipt

The notes to the financial statements are an integral part of, and should be read in conjunction with, the financial statements.

Portfolio of Investments June 30, 2023^{†^}(Unaudited) (continued)

The following is a summary of the fair valuations according to the inputs used as of June 30, 2023, for valuing the Portfolio's assets:

Description	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
Asset Valuation Inputs				
Investments in Securities (a)				
Common Stocks	\$ 356,294,269	\$ —	\$ —	\$ 356,294,269
Short-Term Investments				
Affiliated Investment Company	3,036,970	—	—	3,036,970
Unaffiliated Investment Company	3,381,600	—	—	3,381,600
Total Short-Term Investments	<u>6,418,570</u>	<u>—</u>	<u>—</u>	<u>6,418,570</u>
Total Investments in Securities	<u>\$ 362,712,839</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 362,712,839</u>

(a) For a complete listing of investments and their industries, see the Portfolio of Investments.

The table below sets forth the diversification of the Portfolio's investments by industry.

Industry Diversification

	Value	Percent †^
Chemicals	\$ 37,125,497	10.3%
Commercial Services & Supplies	458,591	0.1
Construction & Engineering	7,323,454	2.0
Energy Equipment & Services	53,384,023	14.9
Food Products	20,629,066	5.8
Machinery	2,053,486	0.6
Metals & Mining	83,185,306	23.1
Oil, Gas & Consumable Fuels	<u>152,134,846</u>	<u>42.3</u>
	356,294,269	99.1
Short-Term Investments	6,418,570	1.8
Other Assets, Less Liabilities	<u>(3,189,970)</u>	<u>(0.9)</u>
Net Assets	<u>\$359,522,869</u>	<u>100.0%</u>

† Percentages indicated are based on Portfolio net assets.

^ Industry classifications may be different than those used for compliance monitoring purposes.

Statement of Assets and Liabilities as of June 30, 2023 (Unaudited)

Assets

Investment in unaffiliated securities, at value (identified cost \$326,416,036) including securities on loan of \$8,002,100	\$359,675,869
Investment in affiliated investment companies, at value (identified cost \$3,036,970)	3,036,970
Cash denominated in foreign currencies (identified cost \$55,082)	54,917
Receivables:	
Investment securities sold	3,477,413
Dividends	312,133
Portfolio shares sold	108,363
Securities lending	4,154
Other assets	<u>3,178</u>
Total assets	<u>366,672,997</u>

Liabilities

Cash collateral received for securities on loan	3,381,600
Due to custodian	49,522
Payables:	
Investment securities purchased	2,273,754
Portfolio shares redeemed	1,167,064
Manager (See Note 3)	230,704
Professional fees	35,214
Custodian	4,835
Accrued expenses	<u>7,435</u>
Total liabilities	<u>7,150,128</u>
Net assets	<u>\$359,522,869</u>

Composition of Net Assets

Shares of beneficial interest outstanding (par value of \$.001 per share) unlimited number of shares authorized	\$ 30,836
Additional paid-in-capital	<u>376,792,937</u>
	376,823,773
Total distributable earnings (loss)	<u>(17,300,904)</u>
Net assets	<u>\$359,522,869</u>

Initial Class

Net assets applicable to outstanding shares	<u>\$359,522,869</u>
Shares of beneficial interest outstanding	<u>30,835,943</u>
Net asset value per share outstanding	<u>\$ 11.66</u>

Statement of Operations for the six months ended June 30, 2023 (Unaudited)

Investment Income (Loss)

Income

Dividends-unaffiliated (net of foreign tax withholding of \$184,463)	\$ 5,072,571
Securities lending, net	90,099
Dividends-affiliated	<u>55,857</u>
Total income	<u>5,218,527</u>

Expenses

Manager (See Note 3)	1,479,254
Professional fees	50,588
Custodian	15,688
Shareholder communication	5,889
Trustees	4,498
Miscellaneous	<u>9,882</u>
Total expenses	<u>1,565,799</u>

Net investment income (loss) 3,652,728

Realized and Unrealized Gain (Loss)

Net realized gain (loss) on:

Unaffiliated investment transactions	18,516,012
Foreign currency transactions	<u>61,274</u>

Net realized gain (loss) 18,577,286

Net change in unrealized appreciation (depreciation) on:

Unaffiliated investments	(32,839,303)
Translation of other assets and liabilities in foreign currencies	<u>(2,724)</u>

Net change in unrealized appreciation (depreciation) (32,842,027)

Net realized and unrealized gain (loss) (14,264,741)

Net increase (decrease) in net assets resulting from operations \$(10,612,013)

Statements of Changes in Net Assets

for the six months ended June 30, 2023 (Unaudited) and the year ended December 31, 2022

	Six months ended June 30, 2023	Year ended December 31, 2022
Increase (Decrease) in Net Assets		
Operations:		
Net investment income (loss)	\$ 3,652,728	\$ 7,413,546
Net realized gain (loss)	18,577,286	107,424,418
Net change in unrealized appreciation (depreciation)	<u>(32,842,027)</u>	<u>(8,349,052)</u>
Net increase (decrease) in net assets resulting from operations	<u>(10,612,013)</u>	<u>106,488,912</u>
Distributions to shareholders:		
Initial Class	<u>—</u>	<u>(4,193,860)</u>
Capital share transactions:		
Net proceeds from sales of shares	26,520,936	117,317,650
Net asset value of shares issued to shareholders in reinvestment of distributions	—	4,193,860
Cost of shares redeemed	<u>(52,523,190)</u>	<u>(120,252,694)</u>
Increase (decrease) in net assets derived from capital share transactions	<u>(26,002,254)</u>	<u>1,258,816</u>
Net increase (decrease) in net assets	<u>(36,614,267)</u>	<u>103,553,868</u>
Net Assets		
Beginning of period	<u>396,137,136</u>	<u>292,583,268</u>
End of period	<u>\$359,522,869</u>	<u>\$ 396,137,136</u>

Financial Highlights selected per share data and ratios

Initial Class	Six months ended	Year Ended December 31,				
	June 30, 2023*	2022	2021	2020	2019	2018
Net asset value at beginning of period	\$ 12.00	\$ 8.93	\$ 6.55	\$ 6.29	\$ 5.43	\$ 7.61
Net investment income (loss)	0.11(a)	0.22	0.12(a)	0.09(a)	0.13(a)	0.04
Net realized and unrealized gain (loss)	(0.45)	2.97	2.36	0.32	0.78	(2.22)
Total from investment operations	(0.34)	3.19	2.48	0.41	0.91	(2.18)
Less distributions:						
From net investment income	—	(0.12)	(0.10)	(0.15)	(0.05)	—
Net asset value at end of period	\$ 11.66	\$ 12.00	\$ 8.93	\$ 6.55	\$ 6.29	\$ 5.43
Total investment return (b)	(2.83)%(c)	35.84%	38.02%	6.89%	16.62%	(28.65)%(c)
Ratios (to average net assets)/Supplemental Data:						
Net investment income (loss)	1.95%††	1.94%	1.56%	1.68%	2.17%	0.59%
Net expenses (d)	0.84%††	0.83%	0.85%	0.86%	0.96%	0.94%
Portfolio turnover rate	45%	92%	72%	68%	87%	78%
Net assets at end of period (in 000's)	\$ 359,523	\$ 396,137	\$ 292,583	\$ 238,908	\$ 249,276	\$ 240,067

* Unaudited.

†† Annualized.

(a) Per share data based on average shares outstanding during the period.

(b) Total return does not reflect any deduction of sales charges, mortality and expense charges, contract charges or administrative charges. For periods of less than one year, total return is not annualized.

(c) Total investment return may reflect adjustments to conform to generally accepted accounting principles.

(d) In addition to the fees and expenses which the Portfolio bears directly, it also indirectly bears a pro-rata share of the fees and expenses of the underlying funds in which it invests. Such indirect expenses are not included in the above expense ratios.

Notes to Financial Statements (Unaudited)

Note 1—Organization and Business

MainStay VP Funds Trust (the "Fund") was organized as a Delaware statutory trust on February 1, 2011. The Fund is registered under the Investment Company Act of 1940, as amended (the "1940 Act"), as an open-end management investment company. The Fund is comprised of thirty-one separate series (collectively referred to as the "Portfolios"). These financial statements and notes relate to the MainStay VP Natural Resources Portfolio (the "Portfolio"), a "non-diversified" portfolio, as that term is defined in the 1940 Act, as interpreted or modified by regulatory authorities having jurisdiction, from time to time. However, due to its principal investment strategies and investment processes, the Portfolio has historically operated as a "diversified" portfolio. Therefore, the Portfolio will not operate as "non-diversified" portfolio without first obtaining shareholder approval.

Shares of the Portfolio are currently offered to certain separate accounts to fund variable annuity policies and variable universal life insurance policies issued by New York Life Insurance and Annuity Corporation ("NYLIAC"), a wholly-owned subsidiary of New York Life Insurance Company ("New York Life") and may also be offered to fund variable annuity policies and variable universal life insurance policies issued by other insurance companies. NYLIAC allocates shares of the Portfolio to, among others, certain NYLIAC separate accounts. Shares of the Portfolio are also offered to the MainStay VP Conservative Allocation Portfolio, MainStay VP Moderate Allocation Portfolio, MainStay VP Growth Allocation Portfolio and MainStay VP Equity Allocation Portfolio, which operate as "funds-of-funds," and other variable insurance funds.

The following table lists the Portfolio's share class that has been registered and commenced operations:

Class	Commenced Operations
Initial Class	February 17, 2012

Shares of the Portfolio are offered and are redeemed at a price equal to their respective net asset value ("NAV") per share. No sales or redemption charge is applicable to the purchase or redemption of the Portfolio's shares.

The Portfolio's investment objective is to seek long-term capital appreciation.

Note 2—Significant Accounting Policies

The Portfolio is an investment company and accordingly follows the investment company accounting and reporting guidance of the Financial Accounting Standards Board ("FASB") Accounting Standards Codification *Topic 946 Financial Services—Investment Companies*. The Portfolio prepares its financial statements in accordance with generally accepted accounting principles ("GAAP") in the United States of America and follows the significant accounting policies described below.

(A) Securities Valuation. Investments are usually valued as of the close of regular trading on the New York Stock Exchange (the "Exchange") (usually 4:00 p.m. Eastern time) on each day the Portfolio is open for business ("valuation date").

Pursuant to Rule 2a-5 under the 1940 Act, the Board of Trustees of the Fund (the "Board") has designated New York Life Investment Management LLC ("New York Life Investments" or the "Manager") as its Valuation Designee (the "Valuation Designee"). The Valuation Designee is responsible for performing fair valuations relating to all investments in the Portfolio's portfolio for which market quotations are not readily available; periodically assessing and managing material valuation risks; establishing and applying fair value methodologies; testing fair valuation methodologies; evaluating and overseeing pricing services; ensuring appropriate segregation of valuation and portfolio management functions; providing quarterly, annual and prompt reporting to the Board, as appropriate; identifying potential conflicts of interest; and maintaining appropriate records. The Valuation Designee has established a valuation committee ("Valuation Committee") to assist in carrying out the Valuation Designee's responsibilities and establish prices of securities for which market quotations are not readily available. The Portfolio's and the Valuation Designee's policies and procedures ("Valuation Procedures") govern the Valuation Designee's selection and application of methodologies for determining and calculating the fair value of Portfolio investments. The Valuation Designee may value the Portfolio's portfolio securities for which market quotations are not readily available and other Portfolio assets utilizing inputs from pricing services and other third-party sources. The Valuation Committee meets (in person, via electronic mail or via teleconference) on an ad-hoc basis to determine fair valuations and on a quarterly basis to review fair value events with respect to certain securities for which market quotations are not readily available, including valuation risks and back-testing results, and preview reports to the Board.

The Valuation Committee establishes prices of securities for which market quotations are not readily available based on such methodologies and measurements on a regular basis after considering information that is reasonably available and deemed relevant by the Valuation Committee. The Board shall oversee the Valuation Designee and review fair valuation materials on a prompt, quarterly and annual basis and approve proposed revisions to the Valuation Procedures.

Investments for which market quotations are not readily available are valued at fair value as determined in good faith pursuant to the Valuation Procedures. A market quotation is readily available only when that quotation is a quoted price (unadjusted) in active markets for identical investments that the Portfolio can access at the measurement date, provided that a quotation will not be readily available if it is not reliable. "Fair value" is defined as the price the Portfolio would reasonably expect to receive upon selling an asset or liability in an orderly transaction to an independent buyer in the principal or most advantageous market for the asset or liability. Fair value measurements are determined within a framework that establishes a three-tier hierarchy that maximizes the use of observable market data and minimizes the use of unobservable inputs

to establish a classification of fair value measurements for disclosure purposes. "Inputs" refer broadly to the assumptions that market participants would use in pricing the asset or liability, including assumptions about risk, such as the risk inherent in a particular valuation technique used to measure fair value using a pricing model and/or the risk inherent in the inputs for the valuation technique. Inputs may be observable or unobservable. Observable inputs reflect the assumptions market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Portfolio. Unobservable inputs reflect the Portfolio's own assumptions about the assumptions market participants would use in pricing the asset or liability based on the information available. The inputs or methodology used for valuing assets or liabilities may not be an indication of the risks associated with investing in those assets or liabilities. The three-tier hierarchy of inputs is summarized below.

- Level 1—quoted prices (unadjusted) in active markets for an identical asset or liability
- Level 2—other significant observable inputs (including quoted prices for a similar asset or liability in active markets, interest rates and yield curves, prepayment speeds, credit risk, etc.)
- Level 3—significant unobservable inputs (including the Portfolio's own assumptions about the assumptions that market participants would use in measuring fair value of an asset or liability)

The level of an asset or liability within the fair value hierarchy is based on the lowest level of an input, both individually and in the aggregate, that is significant to the fair value measurement. The aggregate value by input level of the Portfolio's assets and liabilities as of June 30, 2023, is included at the end of the Portfolio of Investments.

The Portfolio may use third-party vendor evaluations, whose prices may be derived from one or more of the following standard inputs, among others:

• Broker/dealer quotes	• Benchmark securities
• Two-sided markets	• Reference data (corporate actions or material event notices)
• Bids/offers	• Monthly payment information
• Industry and economic events	• Reported trades

An asset or liability for which a market quotation is not readily available is valued by methods deemed reasonable in good faith by the Valuation Committee, following the Valuation Procedures to represent fair value. Under these procedures, the Valuation Designee generally uses a market-based approach which may use related or comparable assets or liabilities, recent transactions, market multiples, book values and other relevant information. The Valuation Designee may also use an income-based valuation approach in which the anticipated future cash flows of the asset or liability are discounted to calculate fair value. Discounts may also be applied due to the nature and/or duration of any restrictions on the disposition of the asset or liability. Fair value represents a good faith approximation of the value of a security. Fair value

determinations involve the consideration of a number of subjective factors, an analysis of applicable facts and circumstances and the exercise of judgment. As a result, it is possible that the fair value for a security determined in good faith in accordance with the Valuation Procedures may differ from valuations for the same security determined for other funds using their own valuation procedures. Although the Valuation Procedures are designed to value a security at the price the Portfolio may reasonably expect to receive upon the security's sale in an orderly transaction, there can be no assurance that any fair value determination thereunder would, in fact, approximate the amount that the Portfolio would actually realize upon the sale of the security or the price at which the security would trade if a reliable market price were readily available. During the six-month period ended June 30, 2023, there were no material changes to the fair value methodologies.

Securities which may be valued in this manner include, but are not limited to: (i) a security for which trading has been halted or suspended or otherwise does not have a readily available market quotation on a given day; (ii) a debt security that has recently gone into default and for which there is not a current market quotation; (iii) a security of an issuer that has entered into a restructuring; (iv) a security that has been delisted from a national exchange; (v) a security subject to trading collars for which no or limited trading takes place; and (vi) a security whose principal market has been temporarily closed at a time when, under normal conditions, it would be open. Securities valued in this manner are generally categorized as Level 2 or 3 in the hierarchy.

Certain securities held by the Portfolio may principally trade in foreign markets. Events may occur between the time the foreign markets close and the time at which the Portfolio's NAVs are calculated. These events may include, but are not limited to, situations relating to a single issuer in a market sector, significant fluctuations in U.S. or foreign markets, natural disasters, armed conflicts, governmental actions or other developments not tied directly to the securities markets. Should the Valuation Designee conclude that such events may have affected the accuracy of the last price of such securities reported on the local foreign market, the Valuation Designee may, pursuant to the Valuation Procedures, adjust the value of the local price to reflect the estimated impact on the price of such securities as a result of such events. In this instance, securities are generally categorized as Level 3 in the hierarchy. Additionally, certain foreign equity securities are also fair valued whenever the movement of a particular index exceeds certain thresholds. In such cases, the securities are fair valued by applying factors provided by a third-party vendor in accordance with the Valuation Procedures and are generally categorized as Level 2 in the hierarchy. No foreign equity securities held by the Portfolio as of June 30, 2023 were fair valued in such a manner.

If the principal market of certain foreign equity securities is closed in observance of a local foreign holiday, these securities are valued using the last closing price of regular trading on the relevant exchange and fair valued by applying factors provided by a third-party vendor in accordance with the Valuation Procedures. These securities are generally categorized as Level 2 in the hierarchy. No securities held by the Portfolio as of June 30, 2023, were fair valued in such a manner.

Notes to Financial Statements (Unaudited) (continued)

Equity securities are valued at the last quoted sales prices as of the close of regular trading on the relevant exchange on each valuation date. Securities that are not traded on the valuation date are valued at the mean of the last quoted bid and ask prices. Prices are normally taken from the principal market in which each security trades. These securities are generally categorized as Level 1 in the hierarchy.

Investments in mutual funds, including money market funds, are valued at their respective NAVs at the close of business each day on the valuation date. These securities are generally categorized as Level 1 in the hierarchy.

Temporary cash investments acquired in excess of 60 days to maturity at the time of purchase are valued using the latest bid prices or using valuations based on a matrix system (which considers such factors as security prices, yields, maturities and ratings), both as furnished by independent pricing services. Temporary cash investments that mature in 60 days or less at the time of purchase ("Short-Term Investments") are valued using the amortized cost method of valuation, unless the use of such method would be inappropriate. The amortized cost method involves valuing a security at its cost on the date of purchase and thereafter assuming a constant amortization to maturity of the difference between such cost and the value on maturity date. Amortized cost approximates the current fair value of a security. Securities valued using the amortized cost method are not valued using quoted prices in an active market and are generally categorized as Level 2 in the hierarchy.

The information above is not intended to reflect an exhaustive list of the methodologies that may be used to value portfolio investments. The Valuation Procedures permit the use of a variety of valuation methodologies in connection with valuing portfolio investments. The methodology used for a specific type of investment may vary based on the market data available or other considerations. The methodologies summarized above may not represent the specific means by which portfolio investments are valued on any particular business day.

(B) Income Taxes. The Portfolio's policy is to comply with the requirements of the Internal Revenue Code of 1986, as amended (the "Internal Revenue Code"), applicable to regulated investment companies and to distribute all of its taxable income to the shareholders of the Portfolio within the allowable time limits.

The Manager evaluates the Portfolio's tax positions to determine if the tax positions taken meet the minimum recognition threshold in connection with accounting for uncertainties in income tax positions taken or expected to be taken for the purposes of measuring and recognizing tax liabilities in the financial statements. Recognition of tax benefits of an uncertain tax position is permitted only to the extent the position is "more likely than not" to be sustained assuming examination by taxing authorities. The Manager analyzed the Portfolio's tax positions taken on federal, state and local income tax returns for all open tax years (for up to three tax years) and has concluded that no provisions for federal, state and local income tax are required in the Portfolio's financial statements. The Portfolio's federal, state and local income tax and federal excise tax

returns for tax years for which the applicable statutes of limitations have not expired are subject to examination by the Internal Revenue Service and state and local departments of revenue.

(C) Foreign Taxes. The Portfolio may be subject to foreign taxes on income and other transaction-based taxes imposed by certain countries in which it invests. A portion of the taxes on gains on investments or currency purchases/repatriation may be reclaimable. The Portfolio will accrue such taxes and reclaims as applicable, based upon its current interpretation of tax rules and regulations that exist in the markets in which it invests.

The Portfolio may be subject to taxation on realized capital gains, repatriation proceeds and other transaction-based taxes imposed by certain countries in which it invests. The Portfolio will accrue such taxes as applicable based upon its current interpretation of tax rules and regulations that exist in the market in which it invests. Capital gains taxes relating to positions still held are reflected as a liability in the Statement of Assets and Liabilities, as well as an adjustment to the Portfolio's net unrealized appreciation (depreciation). Taxes related to capital gains realized, if any, are reflected as part of net realized gain (loss) in the Statement of Operations. Changes in tax liabilities related to capital gains taxes on unrealized investment gains, if any, are reflected as part of the change in net unrealized appreciation (depreciation) on investments in the Statement of Operations. Transaction-based charges are generally assessed as a percentage of the transaction amount.

(D) Dividends and Distributions to Shareholders. Dividends and distributions are recorded on the ex-dividend date. The Portfolio intends to declare and pay dividends from net investment income and distributions from net realized capital and currency gains, if any, at least annually. All dividends and distributions are reinvested at NAV in the same class of shares of the Portfolio. Dividends and distributions to shareholders are determined in accordance with federal income tax regulations and may differ from determinations using GAAP.

(E) Security Transactions and Investment Income. The Portfolio records security transactions on the trade date. Realized gains and losses on security transactions are determined using the identified cost method. Dividend income is recognized on the ex-dividend date, net of any foreign tax withheld at the source, and interest income is accrued as earned using the effective interest rate method. Distributions received from real estate investment trusts may be classified as dividends, capital gains and/or return of capital. Discounts and premiums on securities purchased for the Portfolio are accreted and amortized, respectively, on the effective interest rate method.

(F) Expenses. Expenses of the Fund are allocated to the individual Portfolios in proportion to the net assets of the respective Portfolios when the expenses are incurred, except where direct allocations of expenses can be made. The expenses borne by the Portfolio, including those of related parties to the Portfolio, are shown in the Statement of Operations.

Additionally, the Portfolio may invest in mutual funds, which are subject to management fees and other fees that may cause the costs of investing in

mutual funds to be greater than the costs of owning the underlying securities directly. These indirect expenses of mutual funds are not included in the amounts shown as expenses in the Statement of Operations or in the expense ratios included in the Financial Highlights.

(G) Use of Estimates. In preparing financial statements in conformity with GAAP, the Manager makes estimates and assumptions that affect the reported amounts and disclosures in the financial statements. Actual results could differ from those estimates and assumptions.

(H) Foreign Currency Transactions. The Portfolio's books and records are maintained in U.S. dollars. Prices of securities denominated in foreign currency amounts are translated into U.S. dollars at the mean between the buying and selling rates last quoted by any major U.S. bank at the following dates:

- (i) market value of investment securities, other assets and liabilities— at the valuation date; and
- (ii) purchases and sales of investment securities, income and expenses—at the date of such transactions.

The assets and liabilities that are denominated in foreign currency amounts are presented at the exchange rates and market values at the close of the period. The realized and unrealized changes in net assets arising from fluctuations in exchange rates and market prices of securities are not separately presented.

Net realized gain (loss) on foreign currency transactions represents net currency gains or losses realized as a result of differences between the amounts of securities sale proceeds or purchase cost, dividends, interest and withholding taxes as recorded on the Portfolio's books, and the U.S. dollar equivalent amount actually received or paid. Net currency gains or losses from valuing such foreign currency denominated assets and liabilities, other than investments at valuation date exchange rates, are reflected in unrealized foreign exchange gains or losses.

(I) Securities Lending. In order to realize additional income, the Portfolio may engage in securities lending, subject to the limitations set forth in the 1940 Act and relevant guidance by the staff of the Securities and Exchange Commission ("SEC"). If the Portfolio engages in securities lending, the Portfolio will lend through its custodian, JPMorgan Chase Bank, N.A., ("JPMorgan"), acting as securities lending agent on behalf of the Portfolio. Under the current arrangement, JPMorgan will manage the Portfolio's collateral in accordance with the securities lending agency agreement between the Portfolio and JPMorgan, and indemnify the Portfolio against counterparty risk. The loans will be collateralized by cash (which may be invested in a money market fund) and/or non-cash collateral (which may include U.S. Treasury securities and/or U.S. government agency securities issued or guaranteed by the United States government or its agencies or instrumentalities) at least equal at all times to the market value of the securities loaned. Non-cash collateral held at year end is segregated and cannot be transferred by the Portfolio. The Portfolio bears the risk of delay in recovery of, or loss of rights in, the securities loaned. The Portfolio may also record a realized gain or loss on

securities deemed sold due to a borrower's inability to return securities on loan. The Portfolio bears the risk of any loss on investment of cash collateral. The Portfolio will receive compensation for lending its securities in the form of fees or it will retain a portion of interest earned on the investment of any cash collateral. The Portfolio will also continue to receive interest and dividends on the securities loaned and any gain or loss in the market price of the securities loaned that may occur during the term of the loan will be for the account of the Portfolio. Income earned from securities lending activities, if any, is reflected in the Statement of Operations. Securities on loan as of June 30, 2023, are shown in the Portfolio of Investments.

(J) Foreign Securities Risk. The Portfolio may invest in foreign securities, which carry certain risks that are in addition to the usual risks inherent in domestic securities. Foreign regulatory regimes and securities markets can have less stringent investor protections and disclosure standards and less liquid trading markets than U.S. regulatory regimes and securities markets, and can experience political, social and economic developments that may affect the value of investments in foreign securities. These risks include those resulting from currency fluctuations, future adverse political or economic developments and possible imposition of currency exchange blockages or other foreign governmental laws or restrictions. Economic sanctions and other similar governmental actions or developments could, among other things, effectively restrict or eliminate the Portfolio's ability to purchase or sell certain foreign securities or groups of foreign securities, and thus may make the Portfolio's investments in such securities less liquid or more difficult to value. These risks are likely to be greater in emerging markets than in developed markets. The ability of issuers of debt securities held by the Portfolio to meet their obligations may be affected by, among other things, economic or political developments in a specific country, industry or region.

(K) Indemnifications. Under the Fund's organizational documents, its officers and trustees are indemnified against certain liabilities that may arise out of performance of their duties to the Fund. Additionally, in the normal course of business, the Portfolio enters into contracts with third-party service providers that contain a variety of representations and warranties and that may provide general indemnifications. The Portfolio's maximum exposure under these arrangements is unknown, as this would involve future claims that may be made against the Portfolio that have not yet occurred. The Manager believes that the risk of loss in connection with these potential indemnification obligations is remote. However, there can be no assurance that material liabilities related to such obligations will not arise in the future, which could adversely impact the Portfolio.

Note 3—Fees and Related Party Transactions

(A) Manager and Subadvisor. New York Life Investments, a registered investment adviser and an indirect, wholly-owned subsidiary of New York Life, serves as the Portfolio's Manager, pursuant to an Amended and Restated Management Agreement ("Management Agreement"). The Manager provides offices, conducts clerical, recordkeeping and

Notes to Financial Statements (Unaudited) (continued)

bookkeeping services, and keeps most of the financial and accounting records required to be maintained by the Portfolio. Except for the portion of salaries and expenses that are the responsibility of the Portfolio, the Manager pays the salaries and expenses of all personnel affiliated with the Portfolio and certain operational expenses of the Portfolio. The Portfolio reimburses New York Life Investments in an amount equal to the portion of the compensation of the Chief Compliance Officer attributable to the Portfolio. Newton Investment Management North America, LLC ("Newton" or the "Subadvisor"), a registered investment adviser, serves as Subadvisor to the Portfolio and is responsible for the day-to-day portfolio management of the Portfolio. Pursuant to the terms of a Subadvisory Agreement between New York Life Investments and Newton, New York Life Investments pays for the services of the Subadvisor.

Pursuant to the Management Agreement, the Fund pays the Manager, on behalf of the Portfolio, a monthly fee for the services performed and the facilities furnished at an annual rate of the Portfolio's average daily net assets as follows: 0.79% up to \$1 billion and 0.78% in excess of \$1 billion. During the six-month period ended June 30, 2023, the effective management fee rate was 0.79%.

During the six-month period ended June 30, 2023, New York Life Investments earned fees from the Portfolio in the amount of \$1,479,254 and paid the Subadvisor and former subadvisor aggregate fees of \$673,317.

JPMorgan provides sub-administration and sub-accounting services to the Portfolio pursuant to an agreement with New York Life Investments. These services include calculating the daily NAVs of the Portfolio, maintaining the general ledger and sub-ledger accounts for the calculation of the Portfolio's NAVs, and assisting New York Life Investments in conducting various aspects of the Portfolio's administrative operations. For providing these services to the Portfolio, JPMorgan is compensated by New York Life Investments.

Pursuant to an agreement between the Fund and New York Life Investments, New York Life Investments is responsible for providing or procuring certain regulatory reporting services for the Portfolio. The Portfolio will reimburse New York Life Investments for the actual costs incurred by New York Life Investments in connection with providing or procuring these services for the Portfolio.

Note 4—Federal Income Tax

As of June 30, 2023, the cost and unrealized appreciation (depreciation) of the Portfolio's investment portfolio, including applicable derivative contracts and other financial instruments, as determined on a federal income tax basis, were as follows:

	Federal Tax Cost	Gross Unrealized Appreciation	Gross Unrealized Depreciation	Net Unrealized Appreciation/Depreciation
Investments in Securities	\$330,492,333	\$50,977,423	\$(18,756,917)	\$32,220,506

As of December 31, 2022, for federal income tax purposes, capital loss carryforwards of \$79,265,426, as shown in the table below, were available to the extent provided by the regulations to offset future realized gains of the Portfolio. Accordingly, no capital gains distributions are expected to be paid to shareholders until net gains have been realized in excess of such amounts.

Capital Loss Available Through	Short-Term Capital Loss Amounts (000's)	Long-Term Capital Loss Amounts (000's)
Unlimited	\$23,149	\$56,116

During the year ended December 31, 2022, the tax character of distributions paid as reflected in the Statements of Changes in Net Assets was as follows:

	2022
Distributions paid from:	
Ordinary Income	\$4,193,860

Note 5—Custodian

JPMorgan is the custodian of cash and securities held by the Portfolio. Custodial fees are charged to the Portfolio based on the Portfolio's net assets and/or the market value of securities held by the Portfolio and the number of certain transactions incurred by the Portfolio.

Note 6—Line of Credit

The Portfolio and certain other funds managed by New York Life Investments maintain a line of credit with a syndicate of banks in order to secure a source of funds for temporary purposes to meet unanticipated or excessive redemption requests.

Effective July 25, 2023, under the credit agreement (the "Credit Agreement"), the aggregate commitment amount is \$600,000,000 with an additional uncommitted amount of \$100,000,000. The commitment fee is an annual rate of 0.15% of the average commitment amount payable quarterly, regardless of usage, to JPMorgan, who serves as the agent to the syndicate. The commitment fee is allocated among the Portfolio and certain other funds managed by New York Life Investments based upon their respective net assets and other factors. Interest on any revolving credit loan is charged based upon the Federal Funds Rate, Daily Simple Secured Overnight Financing Rate ("SOFR") + 0.10%, or the Overnight Bank Funding Rate, whichever is higher. The Credit Agreement expires on July 23, 2024, although the Portfolio, certain other funds managed by New York Life Investments and the syndicate of banks may renew the Credit Agreement for an additional year on the same or different terms or enter into a credit agreement with a different syndicate of banks. Prior to July 25, 2023, the aggregate commitment amount and the commitment fee were the same as those under the current Credit Agreement. During the six-month period ended June 30, 2023, there were no borrowings made or outstanding with respect to the Portfolio under the Credit Agreement.

Note 7—Interfund Lending Program

Pursuant to an exemptive order issued by the SEC, the Portfolio, along with certain other funds managed by New York Life Investments, may participate in an interfund lending program. The interfund lending program provides an alternative credit facility that permits the Portfolio and certain other funds managed by New York Life Investments to lend or borrow money for temporary purposes directly to or from one another, subject to the conditions of the exemptive order. During the six-month period ended June 30, 2023, there were no interfund loans made or outstanding with respect to the Portfolio.

Note 8—Purchases and Sales of Securities (in 000's)

During the six-month period ended June 30, 2023, purchases and sales of securities, other than short-term securities, were \$166,899 and \$190,401, respectively.

Note 9—Capital Share Transactions

Transactions in capital shares for the six-month period ended June 30, 2023 and the year ended December 31, 2022, were as follows:

Initial Class	Shares	Amount
Six-month period ended June 30, 2023:		
Shares sold	2,244,068	\$ 26,520,936
Shares redeemed	(4,412,068)	(52,523,190)
Net increase (decrease)	(2,168,000)	\$ (26,002,254)
Year ended December 31, 2022:		
Shares sold	10,407,226	\$ 117,317,650
Shares issued to shareholders in reinvestment of distributions	365,214	4,193,860
Shares redeemed	(10,531,284)	(120,252,694)
Net increase (decrease)	241,156	\$ 1,258,816

Note 10—Other Matters

As of the date of this report, interest rates in the United States and many parts of the world, including certain European countries, continue to ascend from historically low levels. Thus, the Portfolio currently faces a heightened level of risk associated with rising interest rates. This could be driven by a variety of factors, including but not limited to central bank monetary policies, changing inflation or real growth rates, general economic conditions, increasing bond issuances or reduced market demand for low yielding investments.

Social, political, economic and other conditions and events, such as war, natural disasters, health emergencies (e.g., epidemics and pandemics), terrorism, conflicts, social unrest, recessions, inflation, rapid interest rate changes and supply chain disruptions, may occur and could significantly impact the Portfolio, issuers, industries, governments and other systems, including the financial markets. Developments that disrupt global economies and financial markets, such as COVID-19, the conflict in

Ukraine, and the failures of certain U.S. and non-U.S. banks, may magnify factors that affect the Portfolio's performance.

Note 11—Subsequent Events

In connection with the preparation of the financial statements of the Portfolio as of and for the six-month period ended June 30, 2023, events and transactions subsequent to June 30, 2023, through the date the financial statements were issued have been evaluated by the Manager for possible adjustment and/or disclosure. No subsequent events requiring financial statement adjustment or disclosure have been identified.

Discussion of the Operation and Effectiveness of the Portfolio's Liquidity Risk Management Program (Unaudited)

In compliance with Rule 22e-4 under the Investment Company Act of 1940, as amended (the "Liquidity Rule"), the Portfolio has adopted and implemented a liquidity risk management program (the "Program"), which New York Life Investment Management LLC believes is reasonably designed to assess and manage the Portfolio's liquidity risk. A Portfolio's liquidity risk is the risk that the Portfolio could not meet requests to redeem shares issued by the Portfolio without significant dilution of the remaining investors' interests in the Portfolio. The Board of Trustees of MainStay VP Funds Trust (the "Board") previously approved the designation of New York Life Investment Management LLC as administrator of the Program (the "Administrator"). The Administrator has established a Liquidity Risk Management Committee to assist the Administrator in the implementation and day-to-day administration of the Program and to otherwise support the Administrator in fulfilling its responsibilities under the Program.

At a meeting of the Board held on February 28, 2023, the Administrator provided the Board with a written report addressing the Program's operation and assessing the adequacy and effectiveness of its implementation for the period from January 1, 2022, through December 31, 2022 (the "Review Period"), as required under the Liquidity Rule. The report noted that the Administrator concluded that (i) the Program operated effectively to assess and manage the Portfolio's liquidity risk, (ii) the Program has been and continues to be adequately and effectively implemented to monitor and, as applicable, respond to the Portfolio's liquidity developments and (iii) the Portfolio's investment strategy continues to be appropriate for an open-end fund. In addition, the report summarized the operation of the Program and the information and factors considered by the Administrator in its assessment of the Program's implementation, such as the liquidity risk assessment framework and the liquidity classification methodologies, and discussed notable geopolitical, market and other economic events that impacted liquidity risk during the Review Period.

In accordance with the Program, the Portfolio's liquidity risk is assessed no less frequently than annually taking into consideration certain factors, as applicable, such as (i) investment strategy and liquidity of portfolio investments, (ii) short-term and long-term cash flow projections, and (iii) holdings of cash and cash equivalents, as well as borrowing arrangements and other funding sources. Certain factors are considered under both normal and reasonably foreseeable stressed conditions.

Each Portfolio portfolio investment is classified into one of four liquidity categories. The classification is based on a determination of the number of days it is reasonably expected to take to convert the investment into cash, or sell or dispose of the investment, in current market conditions without significantly changing the market value of the investment. The Administrator has delegated liquidity classification determinations to the Portfolio's subadvisor, subject to appropriate oversight by the Administrator, and liquidity classification determinations are made by taking into account the Portfolio's reasonably anticipated trade size, various market, trading and investment-specific considerations, as well as market depth, and, in certain cases, third-party vendor data.

The Liquidity Rule requires portfolios that do not primarily hold assets that are highly liquid investments to adopt a minimum amount of net assets that must be invested in highly liquid investments that are assets (an "HLIM"). In addition, the Liquidity Rule limits a portfolio's investments in illiquid investments. Specifically, the Liquidity Rule prohibits acquisition of illiquid investments if, immediately after acquisition, doing so would result in a portfolio holding more than 15% of its net assets in illiquid investments that are assets. The Program includes provisions reasonably designed to determine, periodically review and comply with the HLIM requirement, as applicable, and to comply with the 15% limit on illiquid investments.

There can be no assurance that the Program will achieve its objectives under all circumstances in the future. Please refer to the Portfolio's prospectus for more information regarding the Portfolio's exposure to liquidity risk and other risks to which it may be subject.

Proxy Voting Policies and Procedures and Proxy Voting Record

The Portfolio is required to file with the SEC its proxy voting record for the 12-month period ending June 30 on Form N-PX. A description of the policies and procedures that are used to vote proxies relating to portfolio securities of the Portfolio is available free of charge upon request by calling 800-598-2019 or visiting the SEC's website at www.sec.gov. The most recent Form N-PX or proxy voting record is available free of charge upon request by calling 800-598-2019; visiting <https://www.newyorklifeinvestments.com/investment-products/vp>; or visiting the SEC's website at www.sec.gov.

Shareholder Reports and Quarterly Portfolio Disclosure

The Portfolio is required to file its complete schedule of portfolio holdings with the SEC 60 days after its first and third fiscal quarter on Form N-PORT. The Portfolio's holdings report is available free of charge upon request by calling 800-598-2019 or by visiting the SEC's website at www.sec.gov.

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MainStay VP Portfolios

MainStay VP offers a wide range of Portfolios. The full array of MainStay VP offerings is listed here, with information about the manager, subadvisors, legal counsel, and independent registered public accounting firm.

Equity

MainStay VP American Century Sustainable Equity Portfolio
MainStay VP Candriam Emerging Markets Equity Portfolio
MainStay VP Epoch U.S. Equity Yield Portfolio
MainStay VP Fidelity Institutional AM[®] Utilities Portfolio[†]
MainStay VP MacKay International Equity Portfolio
MainStay VP Natural Resources Portfolio
MainStay VP S&P 500 Index Portfolio
MainStay VP Small Cap Growth Portfolio
MainStay VP Wellington Growth Portfolio
MainStay VP Wellington Mid Cap Portfolio
MainStay VP Wellington Small Cap Portfolio
MainStay VP Wellington U.S. Equity Portfolio
MainStay VP Winslow Large Cap Growth Portfolio

Mixed Asset

MainStay VP Balanced Portfolio
MainStay VP Income Builder Portfolio
MainStay VP Janus Henderson Balanced Portfolio
MainStay VP MacKay Convertible Portfolio

Income

MainStay VP Bond Portfolio
MainStay VP Floating Rate Portfolio
MainStay VP Indexed Bond Portfolio
MainStay VP MacKay Government Portfolio
MainStay VP MacKay High Yield Corporate Bond Portfolio
MainStay VP MacKay Strategic Bond Portfolio
MainStay VP PIMCO Real Return Portfolio

Money Market

MainStay VP U.S. Government Money Market Portfolio

Alternative

MainStay VP CBRE Global Infrastructure Portfolio
MainStay VP IQ Hedge Multi-Strategy Portfolio

Asset Allocation

MainStay VP Conservative Allocation Portfolio
MainStay VP Equity Allocation Portfolio
MainStay VP Growth Allocation Portfolio
MainStay VP Moderate Allocation Portfolio

Manager

New York Life Investment Management LLC
New York, New York

Subadvisors

American Century Investment Management, Inc.
Kansas City, Missouri

Brown Advisory LLC
Baltimore, Maryland

Candriam*
Strassen, Luxembourg

CBRE Investment Management Listed Real Assets LLC
Radnor, Pennsylvania

Epoch Investment Partners, Inc.
New York, New York

FIAM LLC
Smithfield, Rhode Island

IndexIQ Advisors LLC*
New York, New York

Janus Henderson Investors US LLC
Denver, Colorado

MacKay Shields LLC*
New York, New York

Newton Investment Management North America, LLC
Boston, Massachusetts

NYL Investors LLC*
New York, New York

Pacific Investment Management Company LLC
Newport Beach, California

Segall Bryant & Hamill, LLC
Chicago, Illinois

Wellington Management Company LLP
Boston, Massachusetts

Winslow Capital Management, LLC
Minneapolis, Minnesota

Legal Counsel

Dechert LLP
Washington, District of Columbia

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP
New York, New York

Distributor

NYLIFE Distributors LLC*
Jersey City, New Jersey

Custodian

JPMorgan Chase Bank, N.A.
New York, New York

Some Portfolios may not be available in all products.

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2023 Semiannual Report

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New York Life Insurance Company

New York Life Insurance and Annuity Corporation (NYLIAC) (A Delaware Corporation)

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New York Life Investment Management LLC is the investment manager to the MainStay VP Funds Trust

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