MainStay VP Natural Resources Portfolio

(formerly known as MainStay VP Mellon Natural Resources Portfolio)

Message from the President and Semiannual Report

Unaudited | June 30, 2021

New York Life Investments

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Message from the President

The COVID-19 pandemic continued to afflict our personal lives and broad segments of the U.S. and global economy throughout the six-month reporting period ended June 30, 2021. However, with the deployment of multiple vaccines around the world, including three highly effective versions approved for emergency use in the United States, investors began to turn their attention toward the gradual reopening of the economy and the shape the "new normal" would take.

The first half of the reporting period saw increasing inflationary concerns as fiscal stimulus business reopenings drove accelerating economic growth, rising commodity prices and increased consumer spending. However, the U.S. Federal Reserve noted that price increases were likely to prove temporary and made clear their intention to remain accommodative for the foreseeable future. Accordingly, after moving higher in the first quarter of 2021, interest rates declined in the second quarter.

In response to the uncertain inflation outlook, equity market leadership shifted from value in the first quarter of the year to growth in the second quarter. Nevertheless, investor sentiment remained buoyant throughout the reporting period, with all eleven sectors in the S&P 500® Index, a widely regarded benchmark of market performance, producing positive returns. Energy led the market's rise fueled by rapidly increasing oil and gas prices, followed by financials and real estate, which benefited from rising interest rates and the economic reopening, respectively. Communication services produced the slowest growth, followed by the traditionally defensive utilities and consumer staples sectors. In the fixed income market, lower-credit-quality issues tended to outperform their higher-grade counterparts, with high-yield corporate bonds generating the strongest performance. Among securitized products, commercial mortgage-backed securities generally produced the strongest returns, followed by mortgage-backed securities and asset-backed securities, while Treasury securities lagged.

Despite the tremendous progress we've seen so far this year, the United States and the world continue to face significant pandemic-related challenges. Newer, more contagious variants of COVID-19 threaten the return of restrictions and lockdowns that could stall the economic recovery. At the same time, supply chain shortages have led to rising prices on everything from laptops to autos, stoking fears of uncontrolled inflation despite reassurance from the U.S. Federal Reserve. At New York Life Investments, we recognize that the shape that the "new normal" eventually takes may differ from our expectations. You can depend on us to keep a sharp watch for the unexpected, and to continue to help you find your way through this rapidly evolving investment landscape.

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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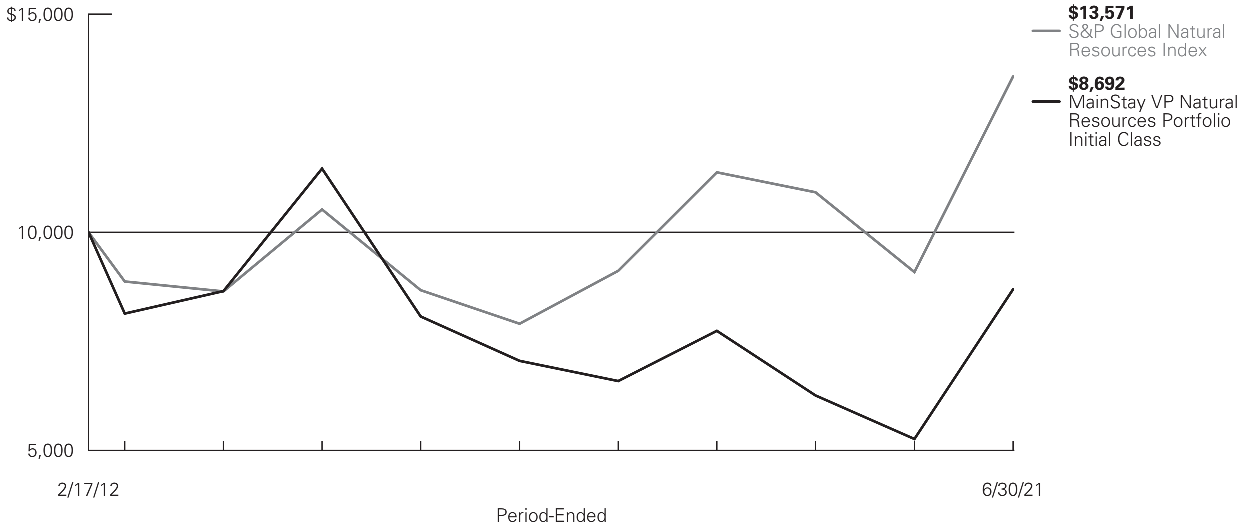
Investors should refer to the Portfolio's Summary Prospectus and/or Prospectus and consider the Portfolio's investment objectives, strategies, risks, charges and expenses carefully before investing. The Summary Prospectus and/or Prospectus contain this and other information about the Portfolio. You may obtain copies of the Portfolio's Summary Prospectus and/or the Prospectus and the Statement of Additional Information 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 nylinvestments.com/vpdocuments. 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, 2021

Class	Inception Date[1]	Six Months	One Year	Five Years	Since Inception	Gross Expense Ratio[2]
Initial Class Shares	2/17/2012	25.12%	65.20%	4.27%	-1.49%	0.86%

1. The Portfolio replaced its subadvisor and modified its principal investment strategies and changed its classification from a diversified fund to a non-diversified fund 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.
2. The gross expense ratios presented reflect the Portfolio's "Total Annual Portfolio Operating Expenses" from the most recent Prospectus, as supplemented, and may differ from other expense ratios disclosed in this report.

Benchmark Performance	Six Months	One Year	Five Years	Since Inception
S&P Global Natural Resources Index[1]	19.94%	49.35%	11.42%	3.31%
Morningstar Natural Resources Category Average[2]	20.52	62.91	9.73	2.40

1. 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. Results assume reinvestment of all dividends and capital gains. An investment cannot be made directly in an index.
2. 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, 2021 to June 30, 2021, 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, distribution and/or service (12b-1) 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, 2021 to June 30, 2021. 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, 2021. 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 1/1/21	Ending Account Value (Based on Actual Returns and Expenses) 6/30/21	Expenses Paid During Period[1]	Ending Account Value (Based on Hypothetical 5% Annualized Return and Actual Expenses) 6/30/21	Expenses Paid During Period[1]	Net Expense Ratio During Period[2]
Initial Class Shares	$1,000.00	$1,251.20	$4.74	$1,020.58	$4.26	0.85%

1. 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.
2. Expenses are equal to the Portfolio's annualized expense ratio to reflect the six-month period.

Country Composition as of June 30, 2021 (Unaudited)

United States	82.8%	Italy	1.7%
Canada	7.1	Denmark	0.7
South Africa	4.3	Other Assets, Less Liabilities	–1.5
Norway	2.9		100.0%
Zambia	2.0		

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 as of June 30, 2021 (excluding short-term investments) (Unaudited)

1. ConocoPhillips
2. Hess Corp.
3. CF Industries Holdings, Inc.
4. Marathon Petroleum Corp.
5. EQT Corp.
6. Valero Energy Corp.
7. Pioneer Natural Resources Co.
8. Occidental Petroleum Corp.
9. Mosaic Co. (The)
10. Devon Energy 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 Mellon Investments Corporation, 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, 2021?

For the six months ended June 30, 2021, MainStay VP Natural Resources Portfolio returned 25.12% for Initial Class shares. Over the same period, Initial Class shares of the Portfolio outperformed the 19.94% return of the S&P Global Natural Resources Sector Index ("the Index"), which is the Portfolio's primary benchmark, and the 20.52% return of the Morningstar Natural Resources Category Average.[1]

Were there any changes to the Portfolio during the reporting period?

Effective May 1, 2021 the Portfolio name changed to MainStay VP Natural Resources Portfolio.

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

The continued impact of the COVID-19 pandemic materially impacted the Portfolio's performance during the reporting period. Economic reopening as the COVID-19 pandemic wound down set the stage for commodity price increases and growing industrial demand for natural resources, creating a favorable environment for the Portfolio's investment universe. The Portfolio outperformed the Index, largely on the strength of relatively strong returns in the areas of U.S./onshore upstream and natural gas exploration & production.

Which market segments were the strongest positive contributors to the Portfolio's relative performance, and which market segments were particularly weak?

The strongest positive sector contributions to the Portfolio's relative performance during the reporting period came from U.S./onshore upstream and natural gas exploration & production. (Contributions take weightings and total returns into account.) During the same period, the weakest contributors to relative performance were integrated energy and next-gen energy.

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 came from oil & gas exploration companies Hess, ConocoPhillips and Devon Energy. Hess shares represented a unique story, with the company leveraged to higher crude prices and benefiting from successful exploration in a low-cost oilfield. ConocoPhillips continued to outperform, as investors started to recognize the value generated by the company's management team. Under strong leadership, the company was one of the first producers to adopt a capital discipline and shareholder return management approach. Furthermore, the company's acquisition of Concho Resources, announced in late 2020, appears in retrospect to have been very timely, adding a world-class resource at the bottom of the cycle. Devon Energy stock outperformed on strong crude prices as global inventories tightened. Management actively engaged with shareholders, and the introduction of the company's variable dividend gained traction with investors.

The most significant detractors from the Portfolio's absolute performance during the same period included positions in integrated oil & gas company Petroleo Brasileiro (Petrobras), gold miner Kinross Gold and solar energy equipment firm Array Technologies. Petrobras stock underperformed despite a solid crude oil rally, as Brazilian President Bolsonaro restructured the company's highly regarded management team and pressured the company to lower domestic diesel prices. Kinross Gold shares declined on falling gold prices, rising interest rates and a strengthening U.S. dollar, as investors gained optimism on the reopening of the economy. Array Technologies underperformed, as the company was forced to guide revenue projections lower due to shortages and supply chain disruptions, as well as inflation.

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

Key additions to the Portfolio during the reporting period included positions in oil & gas exploration & production company Occidental Petroleum, engineering and construction firm Fluor and chemical producer Tronox Holdings. In our opinion, Occidental is well positioned, and we believe higher commodity prices will allow it to delever in the wake of its Anadarko acquisition. The Portfolio initiated a position in Fluor in the belief that the company should benefit from higher commodity prices and infrastructure stimulus, leading to new construction. In our opinion, the company is uniquely positioned to benefit from cyclical areas like mining, as well as secular growth areas like renewables and energy transition. The Portfolio added a position in Tronox, a key producer of titanium dioxide (TiO_2), as we believe that fundamentals are aligned to drive the next TiO_2 bull market.

During the same period, the Portfolio eliminated its entire positions in Petrobras, copper mining company Lundin Mining and steel producer ArcelorMittal 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 exited the forest products & other space, and initiated a position in the industrials subsector through the purchase of Fluor. Exposure to copper was trimmed via the sale of Lundin Mining and Southern Copper positions as prices reached a new near-term high. Exposure to

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

international/offshore upstream was reduced as well through the sale of shares in Petrobras. Finally, the Portfolio eliminated its steel exposure and reduced its exposure to U.S./onshore upstream.

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

As of June 30, 2021, our outlook for the natural resources sector remains very positive for the remainder of 2021 and beyond. Inflation has started to set in. as evidenced by a higher consumer price index, and the sector is supported by both a positive macro environment as well as positive commodity supply/demand dynamics. While we view the Portfolio as style agnostic, we believe that the cyclical global natural resources sector is in a uniquely bullish environment. Macroeconomic and policy factors appear to be lined up with favorable commodity supply and demand stories. Company-level valuations and free cash flow generation potential should be attractive to new investors and capital. Accordingly, we believe that volatility and weakness in the sector should be viewed as entry opportunities.

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.

Portfolio of Investments June 30, 2021† (Unaudited)

	Shares	Value
Common Stocks 98.7%		
Canada 7.1%		
Alamos Gold, Inc., Class A (Metals & Mining)	590,521	$ 4,517,486
Kinross Gold Corp. (Metals & Mining)	1,573,477	9,977,032
Nutrien Ltd. (Chemicals)	81,882	4,962,868
		19,457,386
Denmark 0.7%		
Orsted A/S (Electric Utilities) (a)	14,397	2,020,229
Italy 1.7%		
Enel SpA (Electric Utilities)	489,871	4,549,331
Norway 2.9%		
Equinor ASA (Oil, Gas & Consumable Fuels)	328,663	6,954,098
NEL ASA (Electrical Equipment) (b)	396,780	925,343
		7,879,441
South Africa 4.3%		
Anglo American plc (Metals & Mining)	198,605	7,891,628
Sibanye Stillwater Ltd. (Metals & Mining)	913,995	3,818,553
		11,710,181
United States 80.0%		
Array Technologies, Inc. (Electrical Equipment) (b)	69,616	1,086,010
Bunge Ltd. (Food Products)	112,061	8,757,567
CF Industries Holdings, Inc. (Chemicals)	246,276	12,670,900
Clean Harbors, Inc. (Commercial Services & Supplies) (b)	29,189	2,718,663
CNX Resources Corp. (Oil, Gas & Consumable Fuels) (b)	208,596	2,849,421
Coeur Mining, Inc. (Metals & Mining) (b)	650,044	5,772,391
Comstock Resources, Inc. (Oil, Gas & Consumable Fuels) (b)	567,353	3,784,245
ConocoPhillips (Oil, Gas & Consumable Fuels)	227,753	13,870,158
Corteva, Inc. (Chemicals)	219,262	9,724,270
Covanta Holding Corp. (Commercial Services & Supplies)	208,646	3,674,256
Devon Energy Corp. (Oil, Gas & Consumable Fuels)	379,404	11,074,803
Diamondback Energy, Inc. (Oil, Gas & Consumable Fuels)	52,588	4,937,487
EQT Corp. (Oil, Gas & Consumable Fuels) (b)	533,486	11,875,398
Fluor Corp. (Construction & Engineering) (b)	251,325	4,448,453

	Shares	Value
United States (continued)		
Freeport-McMoRan, Inc. (Metals & Mining)	239,119	$ 8,873,706
Hess Corp. (Oil, Gas & Consumable Fuels)	157,746	13,774,381
Marathon Petroleum Corp. (Oil, Gas & Consumable Fuels)	202,213	12,217,709
Mosaic Co. (The) (Chemicals)	350,451	11,182,891
MP Materials Corp. (Metals & Mining) (b)(c)	84,075	3,099,005
Newmont Corp. (Metals & Mining)	124,267	7,876,042
NextEra Energy Partners LP (Independent Power and Renewable Electricity Producers) (c)	51,006	3,894,818
Occidental Petroleum Corp. (Oil, Gas & Consumable Fuels)	364,398	11,394,725
Peridot Acquisition Corp., Class A (Capital Markets) (b)(c)	68,525	834,635
Phillips 66 (Oil, Gas & Consumable Fuels)	113,961	9,780,133
Pioneer Natural Resources Co. (Oil, Gas & Consumable Fuels)	71,159	11,564,761
Range Resources Corp. (Oil, Gas & Consumable Fuels) (b)	320,180	5,366,217
Stem, Inc. (Electrical Equipment) (b)(c)	53,947	1,942,631
Sunnova Energy International, Inc. (Independent Power and Renewable Electricity Producers) (b)	117,573	4,427,799
Tronox Holdings plc, Class A (Chemicals)	175,849	3,939,018
Valero Energy Corp. (Oil, Gas & Consumable Fuels)	150,358	11,739,953
		219,152,446
Zambia 2.0%		
First Quantum Minerals Ltd. (Metals & Mining)	242,487	5,588,781
Total Common Stocks (Cost $212,099,150)		270,357,795
Short-Term Investments 2.8%		
Affiliated Investment Company 0.7%		
United States 0.7%		
MainStay U.S. Government Liquidity Fund, 0.01% (d)	1,820,389	1,820,389

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

	Shares	Value
Short-Term Investments (continued)		
Unaffiliated Investment Company 2.1%		
United States 2.1%		
Wells Fargo Government Money Market Fund, 0.025% (d)(e)	5,901,060	$ 5,901,060
Total Short-Term Investments (Cost $7,721,449)		7,721,449
Total Investments (Cost $219,820,599)	101.5%	278,079,244
Other Assets, Less Liabilities	(1.5)	(4,095,403)
Net Assets	100.0%	$ 273,983,841

† Percentages indicated are based on Portfolio net assets.

(a) May be sold to institutional investors only under Rule 144A or securities offered pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended.

(b) Non-income producing security.

(c) All or a portion of this security was held on loan. As of June 30, 2021, the aggregate market value of securities on loan was $8,061,081; the total market value of collateral held by the Portfolio was $8,244,990. The market value of the collateral held included non-cash collateral in the form of U.S. Treasury securities with a value of $2,343,930. The Portfolio received cash collateral with a value of $5,901,060. (See Note 2(l))

(d) Current yield as of June 30, 2021.

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

The following is a summary of the fair valuations according to the inputs used as of June 30, 2021, 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	$ 270,357,795	$ —	$ —	$ 270,357,795
Short-Term Investments				
Affiliated Investment Company	1,820,389	—	—	1,820,389
Unaffiliated Investment Company	5,901,060	—	—	5,901,060
Total Short-Term Investments	7,721,449	—	—	7,721,449
Total Investments in Securities	$ 278,079,244	$ —	$ —	$ 278,079,244

(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
Capital Markets	$ 834,635	0.3%
Chemicals	42,479,947	15.5
Commercial Services & Supplies	6,392,919	2.3
Construction & Engineering	4,448,453	1.6
Electric Utilities	6,569,560	2.4
Electrical Equipment	3,953,984	1.4
Food Products	8,757,567	3.2
Independent Power and Renewable Electricity Producers	8,322,617	3.0
Metals & Mining	57,414,624	20.9
Oil, Gas & Consumable Fuels	131,183,489	48.1
	270,357,795	98.7
Short-Term Investments	7,721,449	2.8
Other Assets, Less Liabilities	(4,095,403)	(1.5)
Net Assets	$273,983,841	100.0%

† Percentages indicated are based on Portfolio net assets.

Statement of Assets and Liabilities as of June 30, 2021 (Unaudited)

Assets

Investment in unaffiliated securities, at value (identified cost $218,000,210) including securities on loan of $8,061,081	$ 276,258,855
Investment in affiliated investment companies, at value (identified cost $1,820,389)	1,820,389
Cash denominated in foreign currencies (identified cost $234,576)	238,525
Receivables:	
Investment securities sold	3,604,845
Dividends and interest	293,384
Securities lending	47,021
Portfolio shares sold	26,136
Other assets	1,979
Total assets	282,291,134

Liabilities

Cash collateral received for securities on loan	5,901,060
Payables:	
Investment securities purchased	2,139,039
Manager (See Note 3)	181,155
Professional fees	33,595
Custodian	23,956
Shareholder communication	22,041
Accrued expenses	6,447
Total liabilities	8,307,293
Net assets	$ 273,983,841

Composition of Net Assets

Shares of beneficial interest outstanding (par value of $.001 per share) unlimited number of shares authorized	$ 33,452
Additional paid-in-capital	407,923,780
	407,957,232
Total distributable earnings (loss)	(133,973,391)
Net assets	$ 273,983,841

Initial Class

Net assets applicable to outstanding shares	$273,983,841
Shares of beneficial interest outstanding	33,452,395
Net asset value per share outstanding	$ 8.19

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

Statement of Operations for the six months ended June 30, 2021 (Unaudited)

Investment Income (Loss)

Income	
Dividends-unaffiliated (net of foreign tax withholding of $92,302)	$ 2,679,524
Securities lending	93,295
Dividends-affiliated	115
Other	215
Total income	2,773,149
Expenses	
Manager (See Note 3)	1,033,105
Professional fees	33,646
Custodian	20,348
Shareholder communication	12,855
Trustees	2,405
Miscellaneous	13,785
Total expenses	1,116,144
Net investment income (loss)	1,657,005

Realized and Unrealized Gain (Loss)

Net realized gain (loss) on:	
Unaffiliated investment transactions	30,372,027
Foreign currency transactions	(14,522)
Net realized gain (loss)	30,357,505
Net change in unrealized appreciation (depreciation) on:	
Unaffiliated investments	25,468,453
Translation of other assets and liabilities in foreign currencies	(1,807)
Net change in unrealized appreciation (depreciation)	25,466,646
Net realized and unrealized gain (loss)	55,824,151
Net increase (decrease) in net assets resulting from operations	$57,481,156

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

Statements of Changes in Net Assets

for the six months ended June 30, 2021 (Unaudited) and the year ended December 31, 2020

	2021	2020
Increase (Decrease) in Net Assets		
Operations:		
Net investment income (loss)	$ 1,657,005	$ 3,497,346
Net realized gain (loss)	30,357,505	1,573,874
Net change in unrealized appreciation (depreciation)	25,466,646	11,424,951
Net increase (decrease) in net assets resulting from operations	57,481,156	16,496,171
Distributions to shareholders:		
Initial Class	—	(5,462,396)
Capital share transactions:		
Net proceeds from sales of shares	8,357,046	21,659,133
Net asset value of shares issued to shareholder in reinvestment of distributions	—	5,462,396
Cost of shares redeemed	(30,762,664)	(48,522,616)
Increase (decrease) in net assets derived from capital share transactions	(22,405,618)	(21,401,087)
Net increase (decrease) in net assets	35,075,538	(10,367,312)
Net Assets		
Beginning of period	238,908,303	249,275,615
End of period	$273,983,841	$238,908,303

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

Financial Highlights selected per share data and ratios

Initial Class	Six months ended June 30, 2021*	Year Ended December 31, 2020	2019	2018	2017	2016
Net asset value at beginning of period	$ 6.55	$ 6.29	$ 5.43	$ 7.61	$ 7.67	$ 5.38
Net investment income (loss)	0.05(a)	0.09(a)	0.13(a)	0.04	(0.01)	(0.01)
Net realized and unrealized gain (loss) on investments	1.59	0.32	0.78	(2.22)	(0.05)	2.34
Net realized and unrealized gain (loss) on foreign currency transactions‡	(0.00)	(0.00)	(0.00)	0.00	(0.00)	(0.00)
Total from investment operations	1.64	0.41	0.91	(2.18)	(0.06)	2.33
Less distributions:						
From net investment income	—	(0.15)	(0.05)	—	—	(0.04)
Net asset value at end of period	$ 8.19	$ 6.55	$ 6.29	$ 5.43	$ 7.61	$ 7.67
Total investment return (b)	25.04%(c)	6.89%	16.62%	(28.65)%(c)	(0.78)%(c)	43.33%
Ratios (to average net assets)/Supplemental Data:						
Net investment income (loss)	1.27%††	1.68%	2.17%	0.59%	(0.10)%	(0.12)%(d)
Net expenses (e)	0.85%††	0.86%	0.96%	0.94%	0.94%	0.93%(f)
Portfolio turnover rate	36%	68%	87%	78%	17%	40%
Net assets at end of period (in 000's)	$ 273,984	$ 238,908	$ 249,276	$ 240,067	$ 379,253	$ 432,891

* Unaudited.
‡ Less than one cent per share.
†† 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) Without the custody fee reimbursement, net investment income (loss) would have been (0.13)%.
(e) 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.
(f) Without the custody fee reimbursement, net expenses would have been 0.94%.

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

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 (formerly known as MainStay VP Mellon 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 Portfolios 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 (formerly known as MainStay VP Moderate Growth Allocation Portfolio) and MainStay VP Equity Allocation Portfolio (formerly known as MainStay VP Growth 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 Standard 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").

The Board of Trustees of the Fund (the "Board") adopted procedures establishing methodologies for the valuation of the Portfolio's securities and other assets and delegated the responsibility for valuation determinations under those procedures to the Valuation Committee of the Fund (the "Valuation Committee"). The procedures state that, subject to the oversight of the Board and unless otherwise noted, the responsibility for the day-to-day valuation of portfolio assets (including fair value measurements for the Portfolio's assets and liabilities) rests with New York Life Investment Management LLC ("New York Life Investments" or the "Manager"), aided to whatever extent necessary by the Subadvisor (as defined in Note 3(A)). To assess the appropriateness of security valuations, the Manager, the Subadvisor or the Portfolio's third-party service provider, who is subject to oversight by the Manager, regularly compares prior day prices, prices on comparable securities and the sale prices to the prior and current day prices and challenges prices with changes exceeding certain tolerance levels with third-party pricing services or broker sources.

The Board authorized the Valuation Committee to appoint a Valuation Subcommittee (the "Subcommittee") to establish the prices of securities for which market quotations are not readily available or the prices of which are not otherwise readily determinable under the procedures. The Subcommittee meets (in person, via electronic mail or via teleconference) on an as-needed basis. The Valuation Committee meets to ensure that actions taken by the Subcommittee were appropriate.

For those securities valued through either a standardized fair valuation methodology or a fair valuation measurement, the Subcommittee deals with such valuation and the Valuation Committee reviews and affirms, if appropriate, the reasonableness of the valuation based on such methodologies and measurements on a regular basis after considering information that is reasonably available and deemed relevant by the Valuation Committee. Any action taken by the Subcommittee with respect to the valuation of a portfolio security or other asset is submitted for review and ratification (if appropriate) to the Valuation Committee and the Board at the next regularly scheduled meeting.

"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 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, 2021, 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 market values cannot be measured using the methodologies described above is valued by methods deemed reasonable in good faith by the Valuation Committee, following the procedures established by the Board, to represent fair value. Under these procedures, the Portfolio 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 Portfolio 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 Portfolio's valuation procedures may differ from valuations for the same security determined by other funds using their own valuation procedures. Although the Portfolio's 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, 2021, 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; (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 for which the market price is not readily available from a third-party pricing source or, if so provided, does not, in the opinion of the Manager or the Subadvisor, reflect the security's market value; (vi) a security subject to trading collars for which no or limited trading takes place; and (vii) 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 3 in the hierarchy. No securities held by the Portfolio as of June 30, 2021 were fair valued in such a manner.

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 Manager or the Subadvisor conclude that such events may have affected the accuracy of the last price of such securities reported on the local foreign market, the Subcommittee may, pursuant to procedures adopted by the Board, 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 valuation procedures adopted by the Board and are generally categorized as Level 2 in the hierarchy. No foreign equity securities held by the Portfolio as of June 30, 2021 were fair valued in such a manner.

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. Unless a shareholder elects otherwise, 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. 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, 2021, are shown in the Portfolio of Investments.

Prior to February 22, 2021, these services were provided by State Street Bank and Trust Company ("State Street").

(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. 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. 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 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. Mellon Investments Corporation ("Mellon" 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 ("Subadvisory Agreement") between New York Life Investments and Mellon, 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, 2021, the effective management fee rate was 0.79%.

During the six-month period ended June 30, 2021, New York Life Investments earned fees from the Portfolio in the amount of $1,033,105 and paid the Subadvisor fees in the amount of $495,443.

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.

Prior to February 22, 2021, these services were provided by State Street.

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.

(B) Investments in Affiliates (in 000's). During the six-month period ended June 30, 2021, purchases and sales transactions, income earned from investments and shares held of investment companies managed by New York Life Investments or its affiliates 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	$ 1,065	$ 42,087	$ (41,332)	$ —	$ —	$ 1,820	$ —(a)	$ —	1,820

(a) Less than $500.

Note 4-Federal Income Tax

As of June 30, 2021, 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	$221,771,070	$61,348,949	$(5,040,775)	$56,308,174

As of December 31, 2020, for federal income tax purposes, capital loss carryforwards of $225,676,269, 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	$37,930	$187,746

During the year ended December 31, 2020, the tax character of distributions paid as reflected in the Statements of Changes in Net Assets was as follows:

	2020
Distributions paid from:	
Ordinary Income	$5,462,396

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.

Prior to February 22, 2021, these services were provided by State Street. The services provided by State Street were a direct expense of the Portfolio and are included in the Statement of Operations as Custodian fees which totaled $5,621 for the period January 1, 2021 through February 21, 2021.

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 27, 2021, 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 or the one-month London Interbank Offered Rate ("LIBOR"), whichever is higher. The Credit Agreement expires on July 26, 2022, 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 27, 2021, 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, 2021, 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, 2021, 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, 2021, purchases and sales of securities, other than short-term securities, were $90,661 and $114,015, respectively.

Note 9–Capital Share Transactions

Transactions in capital shares for the six-month period ended June 30, 2021 and the year ended December 31, 2020, were as follows:

Initial Class	Shares	Amount
Period ended June 30, 2021:		
Shares sold	1,083,775	$ 8,357,046
Shares redeemed	(4,130,744)	(30,762,664)
Net increase (decrease)	(3,046,969)	$(22,405,618)
Year ended December 31, 2020:		
Shares sold	4,689,954	$ 21,659,133
Shares issued to shareholders in reinvestment of distributions	997,534	5,462,396
Shares redeemed	(8,836,986)	(48,522,616)
Net increase (decrease)	(3,149,498)	$(21,401,087)

Note 10–Other Matters

An outbreak of COVID-19, first detected in December 2019, has developed into a global pandemic and has resulted in travel restrictions, closure of international borders, certain businesses and securities markets, restrictions on securities trading activities, prolonged quarantines, supply chain disruptions, and lower consumer demand, as well as general concern and uncertainty. The continued impact of COVID-19 and related new variants is uncertain and could further adversely affect the global economy, national economies, individual issuers and capital markets in unforeseeable ways and result in a substantial and extended economic downturn. Developments that disrupt global economies and financial markets, such as COVID-19, 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, 2021, events and transactions subsequent to June 30, 2021, 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 (the risk that the Portfolio could not meet requests to redeem shares issued by the Portfolio without significant dilution of remaining investors’ interests in the Portfolio). The Board of Trustees of MainStay VP Funds Trust (the "Board") designated 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 March 8, 2021, the Administrator provided the Board with a written report addressing the Program’s operation and assessing its adequacy and effectiveness of implementation for the period from January 1, 2020 through December 31, 2020 (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 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 discussed notable events that impacted liquidity risk during the Review Period, including the COVID-19 pandemic and the resulting economic shutdown.

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 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 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 Record

The Portfolio is required to file with the SEC its proxy voting records for the 12-month period ending June 30 on Form N-PX. The Portfolio's most recent Form N-PX or proxy voting record is available free of charge upon request (i) by calling 800-598-2019; (ii) by visiting New York Life Investments' website at *https://www.nylinvestments.com/mainstay/products-and-performance/mainstay-vp-funds-trust;* or (iii) by 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 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 MacKay S&P 500 Index Portfolio
MainStay VP Natural Resources Portfolio
MainStay VP Small Cap Growth Portfolio
MainStay VP T. Rowe Price Equity Income 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
Brown Advisory LLC
Baltimore, Maryland

Candriam Belgium S.A.*
Brussels, Belgium

CBRE Clarion Securities LLC
Radnor, Pennsylvania

Epoch Investment Partners, Inc.
New York, New York

FIAM LLC
Smithfield, Rhode Island

IndexIQ Advisors LLC*
New York, New York

Janus Capital Management LLC
Denver, Colorado

MacKay Shields LLC*
New York, New York

Mellon Investments Corporation
Boston, Massachusetts

NYL Investors LLC*
New York, New York

Pacific Investment Management Company LLC
Newport Beach, California

Segall Bryant & Hamill, LLC
Chicago, Illinois

T. Rowe Price Associates, Inc.
Baltimore, Maryland

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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2021 Semiannual Report

This report is for the general information of New York Life Variable Annuities and NYLIAC Variable Universal Life Insurance Products policyowners. It must be preceded or accompanied by the appropriate product(s) and funds prospectuses if it is given to anyone who is not an owner of a New York Life variable annuity policy or a NYLIAC Variable Universal Life Insurance Product. This report does not offer for sale or solicit orders to purchase securities.

The performance data quoted in this report represents past performance. Past performance is no guarantee of future results. Due to market volatility and other factors, current performance may be lower or higher than the figures shown. The most recent month-end performance summary for your variable annuity or variable life policy is available by calling 800-598-2019 and is updated periodically on newyorklife.com.

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New York Life Insurance Company

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

51 Madison Avenue, Room 551
New York, NY 10010

newyorklife.com

nylinvestments.com

NYLIFE Distributors LLC, 30 Hudson Street, Jersey City, NJ 07302

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

You may obtain copies of the Prospectus and the Statement of Additional Information free of charge, upon request, by calling toll-free 800-598-2019 or writing to New York Life Insurance and Annuity Corporation, 51 Madison Avenue, New York, NY 10010.

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