

MainStay VP Mellon Natural Resources Portfolio

Message from the President and Annual Report

December 31, 2019

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INVESTMENTS

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Message from the President

Equity and fixed-income markets rose broadly during the 12-month reporting period ended December 31, 2019, despite a wide range of global economic and political uncertainties.

The year began on a positive note, with markets recovering from a sharp, late-2018 dip precipitated by concerns regarding the pace of economic growth, a U.S. federal government shutdown and the potential impact of trade disputes between the United States and other nations, particularly China. A wide spectrum of equity and fixed-income sectors gained ground through April 2019 as the government reopened, trade tensions eased and the U.S. Federal Reserve Board ("Fed") signaled a pause in interest rate increases. Mixed macroeconomic signals and the inability of China and the United States to reach a trade agreement caused the market's recovery to suffer during the spring and summer months of 2019. However, accommodative monetary policies from several central banks, including a series of interest rate cuts by the Fed, along with better-than-expected corporate earnings, reassured investors and enabled markets to resume their advance.

Persistent, albeit slow, U.S. economic growth underpinned the U.S. stock market's advance during the reporting period, positioning major U.S. equity indices to reach record territory by late October 2019 and continue rising from there. Sector strength shifted as investor sentiment alternated between risk-on and risk-off positions. In general, for the reporting period, growth-oriented stocks outperformed their value-oriented counterparts by a wide margin, with the information technology sector leading the large-cap S&P 500® Index. However, the traditionally more defensive areas of utilities and communications services generated above-average performance as well. The industrials and consumer discretionary sectors performed in the middle of the pack, while real estate, consumer staples, utilities, health care and materials lagged, and energy brought up the rear on weak oil prices and concerns about future energy demand. Nevertheless, all eleven S&P 500® sectors produced positive returns, with all but energy generating double-digit gains.

In the fixed-income markets, slowing economic growth, modest inflation and the Fed's interest rate cuts created an environment of fluctuating but ultimately falling yields and rising prices for most bonds. Higher-credit-quality, longer-duration instruments generally outperformed lower-credit-quality, shorter-duration securities. Long-term Treasury bonds rallied strongly, with the yield on the 10-year note closing the reporting period at 1.92%,

down from 2.68% in December 2018. Prices for corporate credit also produced significant gains, with yields on both investment-grade and high-yield corporate bonds finishing near the tightest levels of this credit cycle. Spreads of credit-related securitized product (asset-backed and commercial mortgage-backed securities) tightened as well.

International stock and bond markets tended to underperform their U.S. counterparts, constrained by lackluster economic growth in the eurozone and dramatically slowing growth in China and related parts of Asia amid persistent trade tensions with the United States. Uncertainties surrounding the long-standing Brexit drama took a further toll on investor confidence, with progress delayed until the December 2019 election of Boris Johnson's pro-Brexit Conservative Party finally pointed clearly toward an eventual British exit from the European Union. Nevertheless, on average, international securities delivered positive returns supported by the accommodative monetary policies implemented by European and Asian central banks. In general, stocks tended to outperform bonds, with gains in developed-market equities followed closely by those of emerging-market equities. Among bonds, prices for emerging-market securities advanced more than those of developed-market instruments, bolstered by rising risk-on sentiment in the closing months of the reporting period.

As the economic growth cycle lengthens, investors are left to ponder how best to position their portfolios for an uncertain future. When the yield curve inverted in mid-2019 prompting concerns of a potential recession, we were reminded that the direction of the economy is continually subject to change, and perceptions of the economy can shift even more rapidly. As a MainStay VP investor, you can rely on us to manage our portfolios with unflagging energy and dedication so that you can remain focused on your long-term objectives in the face of uncertainty and change. Our goal remains to provide you with the consistently reliable financial tools you need to achieve your long-term objectives.

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.

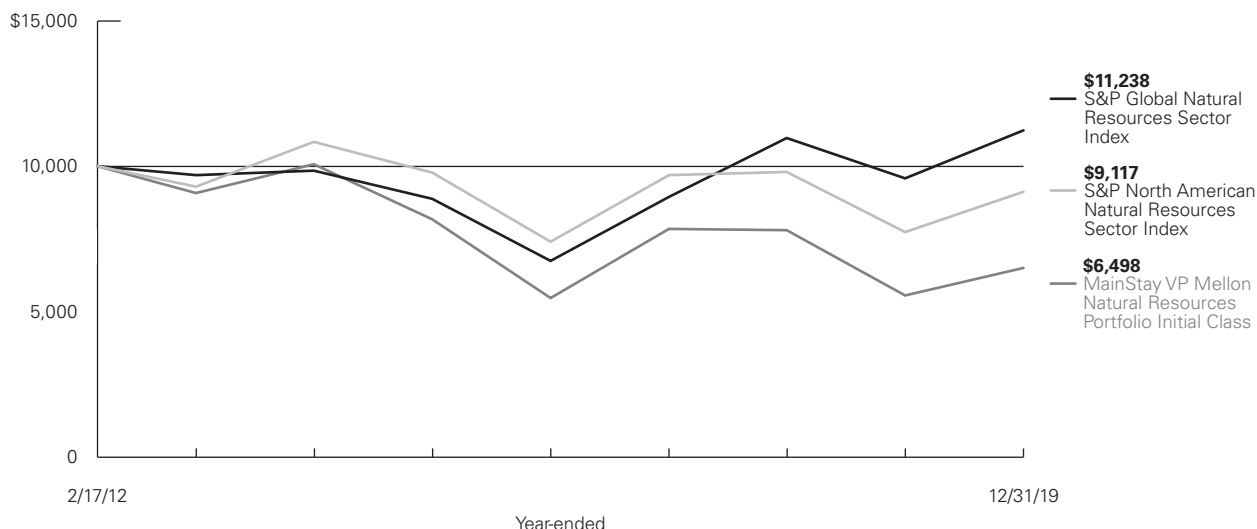
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Investors should refer to the Portfolio's Summary Prospectus and/or Prospectus and consider the Portfolio's investment objectives, strategies, risks, charges and expenses carefully before investing. The Summary Prospectus and/or Prospectus contain 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/vpddocuments. Please read the 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 Comparison¹ (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.



Average Annual Total Returns for the Year-Ended December 31, 2019

Class	Inception Date	One Year	Five Years	Since Inception ²	Gross Expense Ratio ³
Initial Class Shares	2/17/2012	16.62%	-4.50%	-5.33%	0.85%

Benchmark Performance	One Year	Five Years	Since Inception
S&P Global Natural Resources Sector Index ⁴	17.20%	4.79%	1.49%
S&P North American Natural Resources Sector Index ⁵	17.63	-1.41	-1.17
Morningstar Natural Resources Category Average ⁶	14.95	1.39	-1.14

- 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.
- The Portfolio replaced its subadvisor, changed its investment objective 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.
- 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.
- The Portfolio has selected the S&P Global Natural Resources Sector Index as its primary benchmark. The S&P Global Natural Resources Sector 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.
- The S&P North American Natural Resources Sector Index is the Portfolio's secondary benchmark. The S&P North American Natural Resources Sector Index represents U.S. traded securities that are classified under the GICS® energy and materials sector excluding the chemicals industry and steel sub-industry. The natural resource sector includes mining, energy, paper and forest products, and plantation-owning companies. Results assume reinvestment of all dividends and capital gains. An investment cannot be made directly in an index.
- 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 Mellon Natural Resources Portfolio (Unaudited)

The example below is intended to describe the fees and expenses borne by shareholders during the six-month period from July 1, 2019, to December 31, 2019, 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 July 1, 2019, to December 31, 2019. 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 December 31, 2019. 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 7/1/19	Ending Account Value (Based on Actual Returns and Expenses) 12/31/19	Expenses Paid During Period ¹	Ending Account Value (Based on Hypothetical 5% Annualized Return and Actual Expenses) 12/31/19	Expenses Paid During Period ¹	Net Expense Ratio During Period ²
Initial Class Shares	\$1,000.00	\$1,038.20	\$5.03	\$1,020.27	\$4.99	0.98%

- 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 184 (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 December 31, 2019 (Unaudited)

United States	59.6%	Luxembourg	2.7%
Canada	9.1	France	2.2
Norway	6.0	Austria	2.0
South Africa	5.7	Italy	0.9
United Kingdom	5.1	Other Assets, Less Liabilities	<u>0.1</u>
Brazil	3.3		<u>100.0%</u>
Denmark	3.3		

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 December 31, 2019 (excluding short-term investment) (Unaudited)

1. Anglo American PLC	6. FMC Corp.
2. BP PLC	7. Archer-Daniels-Midland Co.
3. ConocoPhillips	8. Equinor ASA
4. Freeport-McMoRan, Inc.	9. Newmont Goldcorp Corp.
5. Barrick Gold Corp.	10. CF Industries Holdings, Inc.

Portfolio Management Discussion and Analysis (Unaudited)

Answers to the questions reflect the views of portfolio manager Robin Wehbe, CFA, of Mellon Investments Corporation, the Portfolio's Subadvisor.

How did MainStay VP Mellon Natural Resources Portfolio perform relative to its benchmarks and peers during the 12 months ended December 31, 2019?

For the 12 months ended December 31, 2019, MainStay VP Mellon Natural Resources Portfolio returned 16.62% for Initial Class shares. Over the same period, Initial Class shares of the Portfolio underperformed the 17.20% return of the S&P Global Natural Resources Sector Index, which is the Portfolio's primary benchmark, and the 17.63% return of the S&P North American Natural Resources Sector Index, which is the Portfolio's secondary benchmark. For the 12 months ended December 31, 2019, the Initial Class shares outperformed the 14.95% return of the Morningstar Natural Resources Category Average.¹

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

Improved trade expectations bolstered returns from the Portfolio's metals and agriculture holdings, which contributed to relative performance. (Contributions take weightings and total returns into account.) Specifically, steel manufacturer ArcelorMittal benefited from a bottoming of the steel cycle and a positive 2020 outlook for trade discussions stimulating capital investments. Select agriculture holdings, such as Nutrien and CF Industries Holdings, rose in response to increasing demand and stabilizing production after a period of excess inventories.

The energy sector lagged for most of the reporting period, but performed strongly in the fourth quarter of 2019, ultimately leaving many names in the sector close to where they started the year. The Portfolio's overweight positioning relative to the S&P Global Natural Resources Sector Index slightly contributed positively to relative performance for the reporting period.

Against a backdrop of continued volatility, the Portfolio maintained a sizable allocation to gold, which benefited from rising gold prices. Conversely, underweight exposure to forest products & other, a top performer in the S&P Global Natural Resources Sector Index, detracted significantly for the Portfolio's relative returns.

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

The Portfolio achieved its strongest returns relative to the S&P Global Natural Resources Index from effective stock selection among steel holdings. To a lesser degree, relative performance also benefited from strong stock selection in agriculture and overweight exposure to next generation energy. The most significant detractor from relative performance was the Portfolio's underweight exposure to forest products & other, while challenging stock selection in integrated energy and refining & chemicals also detracted from relative results.

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 top contributors to the Portfolio's absolute performance included diversified mine operator Rio Tinto, metals miner Newcrest Mining and precious metals producer Barrick Gold. Rio Tinto reported solid production results, particularly in copper, that drove the stock higher through the first and second quarters of 2019. Newcrest Mining benefited from rising gold prices as the company demonstrated strong cost discipline with solid production results. Barrick Gold shares rose on notably positive financial results in the second quarter of 2019 that put the company on track to achieve the high end of its full-year guidance.

The most significant detractors from the Portfolio's absolute performance during the same period included positions in iron ore production & exploration company Vale, oil & gas exploration & production company Occidental Petroleum and oil & natural gas producer Concho Resources. Vale shares lost ground in the wake of a fatal dam failure in Brazil. Upon careful review, we exited the position due to concerns about potential future liabilities. Occidental Petroleum saw shares fall after its acquisition of competitor Anadarko Petroleum and the subsequent unexpected reduction in guidance for Anadarko's operations. Concho Resources posted lower-than-expected earnings due to unanticipated capital expenditures, leading management to adjust the company's long-term expectations.

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

The Portfolio established a new position in shares of integrated oil & gas company BP, reflecting our view that the company's large portfolio of energy producing properties, bolstered by mergers and acquisitions in the Permian Basin, provides advantages of scale and increased return potential in a rapidly maturing sector. The Portfolio bought shares in Canada-based metals miner Lundin Mining on a positive outlook for more stable copper prices and management's execution of the company's expansion amid improving cyclical indicators and softening trade dispute discussions. The Portfolio also initiated a significant position in diversified mining company Anglo American, which, in our view, possesses several attractive business characteristics, including the potential for an effective operational and financial turnaround, organic copper growth and the winding down of South African operations.

In addition to Vale, the Portfolio sold its position in China-based upstream oil & gas producer CNOOC when we found higher conviction investment opportunities in other areas of energy. CNOOC came under pressure from declining oil prices and more

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

conservative growth forecasts. The Portfolio also exited its position in Newcrest Mining, mentioned above, in response to rising Australian dollar rates, which could challenge the company's margins.

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

Relative to the S&P Global Natural Resources Sector Index, the Portfolio increased its overweight exposure to next generation energy and U.S./onshore upstream. Conversely, the Portfolio reduced its already underweight holdings in the forest products & other, metals & mining and integrated energy areas, while trimming its overweight position in refining & chemicals.

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

As of December 31, 2019, the Portfolio held its largest overweight exposures relative to the S&P Global Natural Resources Sector Index in next generation energy, U.S./onshore upstream and agriculture. As of the same date, the Portfolio maintained its most significantly underweight exposures in forest products & other, metals & mining and steel.

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 December 31, 2019

	Shares	Value
Common Stocks 99.2%†		
Austria 2.0%		
OMV A.G. (Oil, Gas & Consumable Fuels)	87,998	\$ 4,943,264
Brazil 3.3%		
Petroleo Brasileiro S.A., Sponsored ADR (Oil, Gas & Consumable Fuels)	554,079	8,266,859
Canada 9.1%		
Barrick Gold Corp. (Metals & Mining)	575,596	10,700,330
Lundin Mining Corp. (Metals & Mining)	747,068	4,464,401
Norbord, Inc. (Paper & Forest Products)	98,431	2,632,558
Teck Resources, Ltd., Class B (Metals & Mining)	283,741	4,928,581
		<u>22,725,870</u>
Denmark 3.3%		
Orsted A/S (Electric Utilities) (a)	23,052	2,384,147
Vestas Wind Systems A/S (Electrical Equipment)	57,770	5,837,832
		<u>8,221,979</u>
France 2.2%		
Air Liquide S.A. (Chemicals)	38,514	5,451,985
Italy 0.9%		
Saipem S.p.A. (Energy Equipment & Services) (b)	476,729	2,329,358
Luxembourg 2.7%		
ArcelorMittal S.A. (Metals & Mining)	375,495	6,588,297
Norway 6.0%		
Equinor ASA (Oil, Gas & Consumable Fuels)	445,373	8,903,097
Yara International ASA (Chemicals)	144,071	5,993,044
		<u>14,896,141</u>
South Africa 5.7%		
Anglo American PLC (Metals & Mining)	492,073	14,163,610
United Kingdom 5.1%		
BP PLC (Oil, Gas & Consumable Fuels)	2,050,168	12,807,015
United States 58.9%		
Archer-Daniels-Midland Co. (Food Products)	192,782	8,935,446
Ball Corp. (Containers & Packaging)	116,050	7,504,953
Bunge, Ltd. (Food Products)	62,152	3,576,848
Casella Waste Systems, Inc., Class A (Commercial Services & Supplies) (b)	102,245	4,706,337
CF Industries Holdings, Inc. (Chemicals)	177,144	8,456,855

	Shares	Value
United States (continued)		
Concho Resources, Inc. (Oil, Gas & Consumable Fuels)	40,367	\$ 3,534,938
ConocoPhillips (Oil, Gas & Consumable Fuels)	171,771	11,170,268
Covanta Holding Corp. (Commercial Services & Supplies)	205,058	3,043,061
First Solar, Inc. (Semiconductors & Semiconductor Equipment) (b)	79,458	4,446,470
FMC Corp. (Chemicals)	102,332	10,214,780
Freeport-McMoRan, Inc. (Metals & Mining)	845,998	11,099,494
Helmerich & Payne, Inc. (Energy Equipment & Services)	70,732	3,213,355
Hess Corp. (Oil, Gas & Consumable Fuels)	104,981	7,013,781
Itron, Inc. (Electronic Equipment, Instruments & Components) (b)	32,366	2,717,126
Louisiana-Pacific Corp. (Paper & Forest Products)	138,708	4,115,466
Marathon Petroleum Corp. (Oil, Gas & Consumable Fuels)	124,481	7,499,980
Newmont Goldcorp Corp. (Metals & Mining)	197,234	8,569,817
NextEra Energy, Inc. (Electric Utilities)	29,895	7,239,373
PBF Energy, Inc., Class A (Oil, Gas & Consumable Fuels)	102,716	3,222,201
Pioneer Natural Resources Co. (Oil, Gas & Consumable Fuels)	49,769	7,533,533
Schlumberger, Ltd. (Energy Equipment & Services)	172,457	6,932,771
Steel Dynamics, Inc. (Metals & Mining)	155,308	5,286,684
Valero Energy Corp. (Oil, Gas & Consumable Fuels)	72,467	6,786,535
		<u>146,820,072</u>
Total Common Stocks (Cost \$225,835,630)		<u>247,214,450</u>

Short-Term Investment 0.7%

Affiliated Investment Company 0.7%

United States 0.7%

MainStay U.S. Government Liquidity Fund, 1.40% (c)	1,791,344	1,791,344
Total Short-Term Investment (Cost \$1,791,344)		<u>1,791,344</u>
Total Investments (Cost \$227,626,974)	99.9%	249,005,794
Other Assets, Less Liabilities	0.1	269,821
Net Assets	100.0%	<u>\$249,275,615</u>

† 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) Current yield as of December 31, 2019.

The following abbreviation is used in the preceding pages:

ADR —American Depositary Receipt

The following is a summary of the fair valuations according to the inputs used as of December 31, 2019, 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	\$247,214,450	\$ —	\$ —	\$247,214,450
Short-Term Investment				
Affiliated Investment Company	1,791,344	—	—	1,791,344
Total Investments in Securities	<u>\$249,005,794</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$249,005,794</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 (Unaudited)

	Value	Percent †
Chemicals	\$ 30,116,664	12.1%
Commercial Services & Supplies	7,749,398	3.1
Containers & Packaging	7,504,953	3.0
Electric Utilities	9,623,520	3.9
Electrical Equipment	5,837,832	2.3
Electronic Equipment,		
Instruments & Components	2,717,126	1.1
Energy Equipment & Services	12,475,484	5.0
Food Products	12,512,294	5.0
Metals & Mining	65,801,214	26.4
Oil, Gas & Consumable Fuels	81,681,471	32.8
Paper & Forest Products	6,748,024	2.7
Semiconductors & Semiconductor Equipment	4,446,470	1.8
	<u>247,214,450</u>	<u>99.2</u>
Short-Term Investment	1,791,344	0.7
Other Assets, Less Liabilities	269,821	0.1
Net Assets	<u>\$249,275,615</u>	<u>100.0%</u>

† Percentages indicated are based on Portfolio net assets.

Statement of Assets and Liabilities as of December 31, 2019

Assets

Investment in unaffiliated securities, at value (identified cost \$225,835,630)	\$ 247,214,450
Investment in affiliated investment company, at value (identified cost \$1,791,344)	1,791,344
Cash denominated in foreign currencies (identified cost \$137,055)	139,500
Cash	9,302
Receivables:	
Dividends	541,243
Portfolio shares sold	45,569
Securities lending	170
Total assets	<u>249,741,578</u>

Initial Class

Net assets applicable to outstanding shares	<u>\$249,275,615</u>
Shares of beneficial interest outstanding	<u>39,648,862</u>
Net asset value per share outstanding	<u>\$ 6.29</u>

Liabilities

Payables:	
Portfolio shares redeemed	204,694
Manager (See Note 3)	163,856
Shareholder communication	35,111
Professional fees	33,350
Custodian	18,580
Trustees	373
Accrued expenses	<u>9,999</u>
Total liabilities	<u>465,963</u>
Net assets	<u>\$ 249,275,615</u>

Composition of Net Assets

Shares of beneficial interest outstanding (par value of \$.001 per share) unlimited number of shares authorized	\$ 39,649
Additional paid-in capital	<u>451,724,288</u>
	451,763,937
Total distributable earnings (loss)	<u>(202,488,322)</u>
Net assets	<u>\$ 249,275,615</u>

Statement of Operations for the year ended December 31, 2019

Investment Income (Loss)

Income

Dividends-unaffiliated (a)	\$ 6,432,471
Non-cash dividends	1,294,090
Dividends-affiliated	74,338
Securities lending	<u>39,481</u>
Total income	<u>7,840,380</u>

Expenses

Manager (See Note 3)	1,983,518
Shareholder communication	269,465
Professional fees	69,694
Custodian	53,190
Trustees	6,224
Miscellaneous	<u>19,738</u>
Total expenses	<u>2,401,829</u>

Net investment income (loss) 5,438,551

Realized and Unrealized Gain (Loss) on Investments and Foreign Currency Transactions

Net realized gain (loss) on:

Unaffiliated investment transactions	(9,209,352)
Foreign currency transactions	<u>(76,028)</u>

Net realized gain (loss) on investments and foreign

currency transactions	<u>(9,285,380)</u>
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Net change in unrealized appreciation (depreciation) on:

Unaffiliated investments	42,043,830
Translation of other assets and liabilities in foreign currencies	<u>1,511</u>

Net change in unrealized appreciation (depreciation) on

investments and foreign currencies	<u>42,045,341</u>
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Net realized and unrealized gain (loss) on investments and

foreign currency transactions	<u>32,759,961</u>
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Net increase (decrease) in net assets resulting from operations \$38,198,512

(a) Dividends recorded net of foreign withholding taxes in the amount of \$486,483.

Statements of Changes in Net Assets

for the years ended December 31, 2019 and December 31, 2018

	2019	2018
Increase (Decrease) in Net Assets		
Operations:		
Net investment income (loss)	\$ 5,438,551	\$ 1,936,539
Net realized gain (loss) on investments and foreign currency transactions	(9,285,380)	(40,630,459)
Net change in unrealized appreciation (depreciation) on investments and foreign currencies	42,045,341	(57,913,149)
Net increase (decrease) in net assets resulting from operations	38,198,512	(96,607,069)
Distributions to shareholders:		
Initial Class	(1,880,547)	—
Capital share transactions:		
Net proceeds from sale of shares	18,704,335	24,434,729
Net asset value of shares issued to shareholders in reinvestment of distributions	1,880,547	—
Cost of shares redeemed	(47,694,578)	(67,013,329)
Increase (decrease) in net assets derived from capital share transactions	(27,109,696)	(42,578,600)
Net increase (decrease) in net assets	9,208,269	(139,185,669)
Net Assets		
Beginning of year	240,067,346	379,253,015
End of year	\$249,275,615	\$ 240,067,346

Financial Highlights selected per share data and ratios

Initial Class	Year ended December 31,				
	2019	2018	2017	2016	2015
Net asset value at beginning of year	\$ 5.43	\$ 7.61	\$ 7.67	\$ 5.38	\$ 8.06
Net investment income (loss)	0.13 (a)	0.04	(0.01)	(0.01)	0.04
Net realized and unrealized gain (loss) on investments	0.78	(2.22)	(0.05)	2.34	(2.69)
Net realized and unrealized gain (loss) on foreign currency transactions	(0.00)‡	0.00 ‡	(0.00)‡	(0.00)‡	0.00 ‡
Total from investment operations	0.91	(2.18)	(0.06)	2.33	(2.65)
Less distributions:					
From net investment income	(0.05)	—	—	(0.04)	(0.03)
Net asset value at end of year	\$ 6.29	\$ 5.43	\$ 7.61	\$ 7.67	\$ 5.38
Total investment return (b)	16.62%	(28.65%)(c)	(0.78%)(c)	43.33%	(32.96%)
Ratios (to average net assets)/Supplemental Data:					
Net investment income (loss)	2.17%	0.59%	(0.10%)	(0.12%)(d)	0.57%
Net expenses (e)	0.96%	0.94%	0.94%	0.93% (f)	0.93%
Portfolio turnover rate	87%	78%	17%	40%	21%
Net assets at end of year (in 000's)	\$ 249,276	\$ 240,067	\$ 379,253	\$ 432,891	\$ 332,823

‡ Less than one cent per share.

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

(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%.

Notes to Financial Statements

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 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. Since the Portfolio has historically operated as a “diversified” portfolio, it will not operate as “non-diversified” 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 Moderate Growth Allocation Portfolio and MainStay VP Growth Allocation Portfolio, which operate as “funds-of-funds.”

The Portfolio currently offers one class of shares. Initial Class shares commenced operations on February 17, 2012. Shares of the Portfolio are offered and are redeemed at a price equal to their 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 Board authorized the Valuation Committee to appoint a Valuation Subcommittee (the “Subcommittee”) to deal in the first instance with establishing the prices of securities for which market quotations are not readily available or the prices of which are not otherwise readily determinable under these procedures. The Subcommittee meets (in person, via electronic mail or via tele-

conference) on an as-needed basis. Subsequently, the Valuation Committee meets to ensure that actions taken by the Subcommittee were appropriate. 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. For those securities valued through either a standardized fair valuation methodology or a fair valuation measurement, the Subcommittee deals in the first instance 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 which 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. As of December 31, 2019, the aggregate value by input level of the Portfolio's assets and liabilities is included at the end of the Portfolio's 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 year ended December 31, 2019, 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. As of

December 31, 2019, no securities held by the Portfolio 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 NAV is 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. As of December 31, 2019, no foreign equity securities held by the Portfolio 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 as of the close of the Exchange 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. Other temporary cash investments which 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.

Notes to Financial Statements (continued)

(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. Therefore, no federal, state and local income tax provisions are required.

Management 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. Management has 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 on 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 the shareholder elects otherwise, all dividends and distributions are reinvested in the same class of shares of the Portfolio, at NAV. 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. Discounts and premiums on securities purchased for the Portfolio are accreted and amortized, respectively, on the effective interest rate method over the life of the respective securities.

(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 Portfolio's 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, management makes estimates and assumptions that affect the reported amounts and disclosures in the financial statements. Actual results could differ from those estimates.

(H) Repurchase Agreements. The Portfolio may enter into repurchase agreements (i.e., buy a security from another party with the agreement that it will be sold back in the future) to earn income. The Portfolio may enter into repurchase agreements only with counterparties, usually financial institutions, that are deemed by the Manager or the Subadvisor to be creditworthy, pursuant to guidelines established by the Board. During the term of any repurchase agreement, the Manager or the Subadvisor will continue to monitor the creditworthiness of the counterparty. Under the 1940 Act, repurchase agreements are considered to be collateralized loans by the Portfolio to the counterparty secured by the securities transferred to the Portfolio.

Repurchase agreements are subject to counterparty risk, meaning the Portfolio could lose money by the counterparty's failure to perform under the terms of the agreement. The Portfolio mitigates this risk by ensuring the repurchase agreement is collateralized by cash, U.S. government securities, fixed income securities and/or other securities. The collateral is held by the Portfolio's custodian and valued daily on a mark to market basis to determine if the value, including accrued interest, exceeds the repurchase price. In the event of the counterparty's default on the obligation to repurchase, the Portfolio has the right to liquidate the collateral and apply the proceeds in satisfaction of the obligation. Under certain circumstances, such as in the event of default or bankruptcy by the counterparty, realization and/or retention of the collateral may be limited or subject to delay, to legal proceedings and possible realized loss to the Portfolio. As of December 31, 2019, the Portfolio did not hold any repurchase agreements.

(I) 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.

(J) 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, State Street Bank and Trust Company ("State Street"), acting as securities lending agent on behalf of the Portfolio. State Street will manage the Portfolio's collateral in accordance with the securities lending agency agreement between the Portfolio and State Street, 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 may bear the risk of delay in recovery of, or loss of rights in, the securities loaned should the borrower of the securities experience financial difficulty. 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. As of December 31, 2019, the Portfolio did not have any portfolio securities on loan.

(K) 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.

(L) 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 which 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. Based on experience, management is of the view 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, record-keeping 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 a 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.

The Fund, on behalf of the Portfolio, pays New York Life Investments in its capacity as the Portfolio's investment manager and administrator, pursuant to the Management Agreement, 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 year ended December 31, 2019, the effective management fee rate was 0.79%.

During the year ended December 31, 2019, New York Life Investments earned fees from the Portfolio in the amount of \$1,983,518 and paid the Subadvisor in the amount of \$953,774.

State Street 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 NAV of the Portfolio, maintaining the general ledger and sub-ledger accounts for the calculation of the Portfolio's NAV and assisting New York Life Investments in conducting various aspects of the Portfolio's administrative operations.

Notes to Financial Statements (continued)

For providing these services to the Portfolio, State Street 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.

(B) Investments in Affiliates (in 000's). During the year ended December 31, 2019, 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 Company	Value, Beginning of Year	Purchases at Cost	Proceeds from Sales	Net Realized Gain/(Loss) on Sales	Change in Unrealized Appreciation/ (Depreciation)	Value, End of Year	Dividend Income	Other Distributions	Shares End of Year
MainStay U.S. Government Liquidity Fund	\$4,510	\$100,972	\$(103,691)	\$ —	\$ —	\$1,791	\$74	\$ —	1,791

Note 4—Federal Income Tax

As of December 31, 2019, 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:

	Gross Federal Tax Cost	Gross Unrealized Appreciation (Depreciation)	Net Unrealized Appreciation/ (Depreciation)
Investments			
in Securities	\$227,786,676	\$27,597,685	\$(6,378,567)

As of December 31, 2019, the components of accumulated gain (loss) on a tax basis were as follows:

Ordinary Income	Accumulated Capital and Other Gain (Loss)	Other Temporary Differences	Unrealized Appreciation (Depreciation)	Total Accumulated Gain (Loss)
\$5,370,490	\$(229,081,157)	\$1	\$21,222,344	\$(202,488,322)

The difference between book-basis and tax-basis unrealized appreciation (depreciation) is primarily due to wash sale adjustments.

The following table discloses the current year reclassifications between total distributable earnings (loss) and additional paid-in capital arising from permanent differences; net assets as of December 31, 2019 were not affected.

Total Distributable Earnings (Loss)	Additional Paid-In Capital
\$62,610	\$(62,610)

The reclassifications for the Portfolio are primarily due to different book and tax treatment of foreign taxes.

As of December 31, 2019, for federal income tax purposes, capital loss carryforwards of \$229,081,157, as shown in the table below, were available to the extent provided by the regulations to offset future realized gains of the Portfolio through the years indicated. 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	\$31,324	\$197,757

During the years ended December 31, 2019, and December 31, 2018, the tax character of distributions paid as reflected in the Statements of Changes in Net Assets were as follows:

2019		2018	
Tax-Based Distributions from Ordinary Income	Tax-Based Distributions from Long-Term Gains	Tax-Based Distributions from Ordinary Income	Tax-Based Distributions from Long-Term Gains
\$1,880,547	\$—	\$—	\$—

Note 5—Custodian

State Street 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 30, 2019, 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 State Street, 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 28, 2020, 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. Prior to July 30, 2019, the aggregate commitment amount and the commitment fee were the same as those under the current Credit Agreement. During the year ended December 31, 2019, 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 year ended December 31, 2019, 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 year ended December 31, 2019, purchases and sales of securities, other than short-term securities, were \$214,242 and \$234,196, respectively.

Note 9—Capital Share Transactions

Transactions in capital shares for the years ended December 31, 2019 and December 31, 2018, were as follows:

Initial Class	Shares	Amount
Year ended December 31, 2019:		
Shares sold	3,224,691	\$ 18,704,335
Shares issued to shareholders in reinvestment of distributions	333,519	1,880,547
Shares redeemed	(8,080,002)	(47,694,578)
Net increase (decrease)	(4,521,792)	\$(27,109,696)
Year ended December 31, 2018:		
Shares sold	3,598,827	\$ 24,434,729
Shares redeemed	(9,232,382)	(67,013,329)
Net increase (decrease)	(5,633,555)	\$(42,578,600)

Note 10—Recent Accounting Pronouncement

To improve the effectiveness of fair value disclosure requirements, the Financial Accounting Standards Board recently issued Accounting Standards Update (ASU) 2018-13, Fair Value Measurement Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement (ASU 2018-13), which adds, removes, and modifies certain aspects relating to fair value disclosure. ASU 2018-13 is effective for interim and annual reporting periods beginning after December 15, 2019. For the year ended December 31, 2018, management evaluated the implications of certain other provisions of the ASU and determined to early adopt aspects related to the removal and modifications of certain fair value measurement disclosures under the ASU, which are currently in place as of December 31, 2019. At this time, management is evaluating the implications of certain other provisions of the ASU related to new disclosure requirements and any impact on the financial statement disclosures has not yet been determined.

Note 11—Subsequent Events

In connection with the preparation of the financial statements of the Portfolio as of and for the year ended December 31, 2019, events and transactions subsequent to December 31, 2019, through the date the financial statements were issued have been evaluated by the Portfolio's management for possible adjustment and/or disclosure. No subsequent events requiring financial statement adjustment or disclosure have been identified.

Report of Independent Registered Public Accounting Firm

To the Board of Trustees of MainStay VP Funds Trust and Shareholders of
MainStay VP Mellon Natural Resources Portfolio

Opinion on the Financial Statements

We have audited the accompanying statement of assets and liabilities, including the portfolio of investments, of MainStay VP Mellon Natural Resources Portfolio (one of the portfolios constituting MainStay VP Funds Trust, referred to hereafter as the "Portfolio") as of December 31, 2019, the related statement of operations for the year ended December 31, 2019, the statements of changes in net assets for each of the two years in the period ended December 31, 2019, including the related notes, and the financial highlights for each of the five years in the period ended December 31, 2019 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Portfolio as of December 31, 2019, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period ended December 31, 2019 and the financial highlights for each of the five years in the period ended December 31, 2019 in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Portfolio's management. Our responsibility is to express an opinion on the Portfolio's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Portfolio in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits of these financial statements in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. Our procedures included confirmation of securities owned as of December 31, 2019 by correspondence with the custodian and transfer agent. We believe that our audits provide a reasonable basis for our opinion.

PricewaterhouseCoopers LLP
New York, New York
February 19, 2020

We have served as the auditor of one or more investment companies in the MainStay group of funds since 1984.

Board Consideration and Approval of Management Agreement and Subadvisory Agreement (Unaudited)

The continuation of the Management Agreement with respect to the MainStay VP Mellon Natural Resources Portfolio (“Portfolio”) and New York Life Investment Management LLC (“New York Life Investments”) and the Subadvisory Agreement between New York Life Investments and Mellon Investments Corporation (“Mellon”) with respect to the Portfolio (together, “Advisory Agreements”), following an initial term of up to two years, is subject to annual review and approval by the Board of Trustees of MainStay VP Funds Trust (“Board” of the “Trust”) in accordance with Section 15 of the Investment Company Act of 1940, as amended (“1940 Act”). At its December 10-11, 2019 in-person meeting, the Board, including the Trustees who are not an “interested person” (as such term is defined in the 1940 Act) of the Trust (“Independent Trustees”) voting separately, unanimously approved the continuation of each of the Advisory Agreements for a one-year period.

In reaching the decision to approve the continuation of each of the Advisory Agreements, the Board considered information furnished by New York Life Investments and Mellon in connection with an annual contract review process undertaken by the Board that took place at meetings of the Board and its Contracts Committee between October 2019 and December 2019, as well as other information furnished to the Board and its Committees throughout the year, as deemed relevant by the Trustees. Information requested by and furnished to the Board for consideration in connection with the contract review process included, among other items, reports on the Portfolio and “peer funds” prepared by Strategic Insight Mutual Fund Research and Consulting, LLC (“Strategic Insight”), an independent third-party service provider engaged by the Board to report objectively on the Portfolio’s investment performance, management fee and total expenses. The Board also considered information on the fees charged to other investment advisory clients of New York Life Investments and/or Mellon that follow investment strategies similar to the Portfolio, if any, and, when applicable, the rationale for any differences in the Portfolio’s management and sub-advisory fees and the fees charged to those other investment advisory clients. In addition, the Board considered information furnished by New York Life Investments and Mellon in response to requests prepared on behalf of the Board, and in consultation with the Independent Trustees, by independent legal counsel to the Independent Trustees, which encompassed a variety of topics, including those summarized below. The Board took into account information provided in connection with its meetings throughout the year, including, among other items, information regarding the legal standards and fiduciary obligations applicable to its consideration of the continuation of each of the Advisory Agreements and investment performance reports on the Portfolio prepared by the Investment Consulting Group of New York Life Investments as well as presentations from New York Life Investments and Mellon personnel. The Board also took into account other information received from New York Life Investments throughout the year, including, among other items, periodic reports on legal and compliance matters, risk management, portfolio turnover, brokerage commissions, sales and marketing activity and non-advisory services provided to the Portfolio by New York Life Investments. The contract review process, including the structure and format for materials provided to the Board, has been developed in consultation with the Board. The Independent Trustees also met in executive sessions with their independent legal counsel and, for a portion thereof, with senior management of New York Life Investments joining.

In addition to information provided to the Board throughout the year, the Board received information in connection with its June 2019 meeting provided specifically in response to requests prepared on behalf of the Board, and in consultation with the Independent Trustees, by independent legal counsel regarding the Portfolio’s distribution arrangements. In addition, the Board received information regarding the Portfolio’s asset levels, share purchase and redemption activity and the payment of fees by the share class of the Portfolio. New York Life Investments also provided the Board with information regarding the revenue sharing payments made by New York Life Investments from its own resources to insurance companies that issue variable contracts under which the Portfolio serves as an investment option or intermediaries that promote the sale, distribution and/or servicing of such variable contracts or the Portfolio’s shares.

In considering the continuation of each of the Advisory Agreements, the Trustees reviewed and evaluated all of the information and factors they believed to reasonably be necessary and appropriate in light of legal advice furnished to them by independent legal counsel and through the exercise of their own business judgment. Although individual Trustees may have weighed certain factors or information differently, the factors considered by the Board are described in greater detail below and include, among other factors: (i) the nature, extent and quality of the services provided to the Portfolio by New York Life Investments and Mellon; (ii) the qualifications of the portfolio manager of the Portfolio and the historical investment performance of the Portfolio, New York Life Investments and Mellon; (iii) the costs of the services provided, and profits realized, by New York Life Investments and Mellon from their relationships with the Portfolio; (iv) the extent to which economies of scale have been realized or may be realized as the Portfolio grows and the extent to which economies of scale have benefited or may benefit the Portfolio’s shareholders; and (v) the reasonableness of the Portfolio’s management and subadvisory fees and total ordinary operating expenses, particularly as compared to any similar funds and accounts managed by New York Life Investments and/or Mellon. Although the Board recognized that comparisons between the Portfolio’s fees and expenses and those of other funds are imprecise given different terms of agreements, variations in fund strategies and other factors, the Board considered the reasonableness of the Portfolio’s management fee and total ordinary operating expenses as compared to the peer funds identified by Strategic Insight. Throughout their considerations, the Trustees acknowledged the commitment of New York Life Investments and its affiliates to serve the MainStay Group of Funds, as well as their capacity, experience, resources, financial stability and reputations.

The Trustees noted that, throughout the year, the Trustees are also afforded an opportunity to ask questions of, and request additional information or materials from, New York Life Investments and Mellon. The Board’s conclusions with respect to each of the Advisory Agreements may have also been based, in part, on the Board’s knowledge of New York Life Investments and Mellon resulting from, among other things, the Board’s consideration of each of the Advisory Agreements in prior years, the advisory agreements for other funds in the MainStay Group of Funds, the Board’s review throughout the year of the performance and operations of other funds in the MainStay Group of Funds and the Board’s business judgment and industry experience. In addition to considering the above-referenced factors, the Board observed that in the marketplace, notably under variable life insurance policies and

Board Consideration and Approval of Management Agreement and Subadvisory Agreement (Unaudited) (continued)

variable annuity contracts for which the Portfolio serves as an investment option, there are a range of investment options available to the Portfolio's shareholders and such shareholders, having had the opportunity to consider other investment options, have chosen to invest in the Portfolio. The factors that figured prominently in the Board's decision to approve the continuation of each of the Advisory Agreements during its December 10-11, 2019 in-person meeting are summarized in more detail below, and the Board did not consider any factor or information controlling in making such approval.

Nature, Extent and Quality of Services Provided by New York Life Investments and Mellon

The Board examined the nature, extent and quality of the services that New York Life Investments provides to the Portfolio. The Board evaluated New York Life Investments' experience and capabilities in serving as manager of the Portfolio and considered that the Portfolio operates in a "manager-of-managers" structure. The Board also considered New York Life Investments' responsibilities under this structure, including evaluating the performance of Mellon, making recommendations to the Board as to whether the Subadvisory Agreement should be renewed, modified or terminated and periodically reporting to the Board regarding the results of New York Life Investments' evaluation and monitoring functions. The Board noted that New York Life Investments manages other mutual funds, serves a variety of other investment advisory clients, including other pooled investment vehicles, and has experience overseeing mutual fund service providers, including subadvisors. The Board considered the experience of senior personnel at New York Life Investments providing management and administrative and other non-advisory services to the Portfolio as well as New York Life Investments' reputation and financial condition. The Board observed that New York Life Investments devotes significant resources and time to providing management and non-advisory services to the Portfolio, including New York Life Investments' supervision and due diligence reviews of Mellon and ongoing analysis of, and interactions with, Mellon with respect to, among other things, the Portfolio's investment performance and risks as well as Mellon's investment capabilities and sub-advisory services with respect to the Portfolio.

The Board also considered the range of services that New York Life Investments provides to the Portfolio under the terms of the Management Agreement, including: (i) fund accounting and ongoing supervisory services provided by New York Life Investments' Fund Administration and Accounting Group; (ii) investment supervisory and analytical services provided by New York Life Investments' Investment Consulting Group; (iii) compliance services provided by the Trust's Chief Compliance Officer as well as New York Life Investments' compliance department, including supervision and implementation of the Portfolio's compliance program; (iv) legal services provided by New York Life Investments' Office of the General Counsel; and (v) risk management monitoring and analysis by compliance and investment personnel. The Board noted that New York Life Investments provides certain other non-advisory services to the Portfolio. In addition, the Board considered New York Life Investments' willingness to invest in personnel, infrastructure, technology, operational enhancements, cyber security, information security, shareholder privacy resources and business continuity planning designed to benefit the Portfolio and noted that New York Life Investments is responsible for compensating the Trust's

officers, except for a portion of the salary of the Trust's Chief Compliance Officer. The Board recognized that New York Life Investments has provided an increasingly broad array of non-advisory services to the MainStay Group of Funds as a result of regulatory and other developments, including in connection with the designation of New York Life Investments as the administrator of the MainStay Group of Funds' liquidity risk management program adopted under the 1940 Act.

The Board also examined the nature, extent and quality of the investment advisory services that Mellon provides to the Portfolio. The Board evaluated Mellon's experience in serving as subadvisor to the Portfolio and advising other portfolios and Mellon's track record and experience in providing investment advisory services, the experience of investment advisory, senior management and administrative personnel at Mellon, and New York Life Investments' and Mellon's overall legal and compliance environment, resources and history. In addition to information provided in connection with its quarterly meetings with the Trust's Chief Compliance Officer, the Board considered that each of New York Life Investments and Mellon believes its compliance policies and procedures are reasonably designed to prevent violation of the federal securities laws and acknowledged their commitment to further developing and strengthening compliance programs relating to the Portfolio. The Board also considered the policies and procedures in place with respect to matters that may involve conflicts of interest between the Portfolio's investments and those of other accounts managed by Mellon. The Board reviewed Mellon's ability to attract and retain qualified investment professionals and willingness to invest in personnel to service and support the Portfolio. In this regard, the Board considered the experience of the Portfolio's portfolio manager, the number of accounts managed by the portfolio manager and the method for compensating the portfolio manager.

Based on these considerations, the Board concluded that the Portfolio would likely continue to benefit from the nature, extent and quality of these services.

Investment Performance

In evaluating the Portfolio's investment performance, the Board considered investment performance results over various periods in light of the Portfolio's investment objective, strategies and risks, generally placing greater emphasis on the Portfolio's long-term performance track record. The Board considered investment reports on, and analysis of, the Portfolio's performance provided to the Board throughout the year by the Investment Consulting Group of New York Life Investments. These reports include, among other items, information on the Portfolio's gross and net returns, the Portfolio's investment performance compared to relevant investment categories and the Portfolio's benchmark, the Portfolio's risk-adjusted investment performance and the Portfolio's investment performance as compared to peer funds, as appropriate, as well as portfolio attribution information and commentary on the effect of current and recent market conditions. The Board also considered information provided by Strategic Insight showing the investment performance of the Portfolio as compared to peer funds.

The Board also gave weight to its discussions with senior management at New York Life Investments concerning the Portfolio's investment performance attributable to Mellon as well as discussions between the Portfolio's portfolio manager and the members of the Board's Invest-

ment Committee, which generally occur on an annual basis. In addition, the Board considered any specific actions that New York Life Investments or Mellon had taken, or had agreed with the Board to take, to seek to enhance Portfolio investment performance and the results of those actions. In considering the investment performance of the Portfolio, the Board noted that the Portfolio underperformed its peer funds for the one-, three- and five-year periods ended July 31, 2019. The Board considered its discussions with representatives from New York Life Investments and Mellon regarding the Portfolio's investment performance relative to that of its benchmark index and peer funds.

Based on these considerations, the Board concluded that its review of the Portfolio's investment performance and related information supported a determination to approve the continuation of each of the Advisory Agreements.

Costs of the Services Provided, and Profits Realized, by New York Life Investments and Mellon

The Board considered information provided by New York Life Investments and Mellon with respect to the costs of the services provided under each of the Advisory Agreements. The Board also considered the profits realized by New York Life Investments and its affiliates and Mellon due to their relationships with the Portfolio. The Board considered that Mellon's subadvisory fee had been negotiated at arm's-length by New York Life Investments and that this fee is paid by New York Life Investments, not the Portfolio. On this basis, the Board primarily considered the costs and profitability for New York Life Investments and its affiliates with respect to the Portfolio.

In addition, the Board acknowledged the difficulty in obtaining reliable comparative data about mutual fund managers' profitability, because such information generally is not publicly available and may be impacted by numerous factors, including the structure of a fund manager's organization, the types of funds it manages, the methodology used to allocate certain fixed costs to specific funds and the manager's capital structure and costs of capital.

In evaluating the costs of the services provided by New York Life Investments and Mellon and profits realized by New York Life Investments and its affiliates and Mellon, the Board considered, among other factors, each party's continuing investments in, or willingness to invest in, personnel, systems, equipment and other resources and infrastructure to support and further enhance the management of the Portfolio, and that New York Life Investments is responsible for paying the subadvisory fee for the Portfolio. The Board also considered the financial resources of New York Life Investments and Mellon and acknowledged that New York Life Investments and Mellon must be in a position to attract and retain experienced professional personnel and to maintain a strong financial position for New York Life Investments and Mellon to continue to provide high-quality services to the Portfolio. The Board recognized that the Portfolio benefits from the allocation of certain fixed costs across the MainStay Group of Funds, among other expected benefits resulting from its relationship with New York Life Investments.

The Board considered information regarding New York Life Investments' methodology for calculating profitability and allocating costs provided by New York Life Investments in connection with the fund profitability analysis presented to the Board. The Board previously engaged an

independent third-party consultant to review the methods used to allocate costs to and among the funds in the MainStay Group of Funds. The Board noted that the independent consultant had concluded that New York Life Investments' methods for allocating costs and procedures for estimating overall profitability of the relationship with the funds in the MainStay Group of Funds are reasonable and that New York Life Investments continued to use the same method of calculating profit and allocating costs since the independent consultant's review. The Board recognized the difficulty in evaluating a manager's profitability with respect to the Portfolio and noted that other profitability methodologies may also be reasonable.

The Board also considered certain fall-out benefits that may be realized by New York Life Investments and Mellon and their affiliates due to their relationships with the Portfolio, including reputational and other indirect benefits. In this regard, the Board also requested and received information from New York Life Investments concerning other material business relationships between Mellon and its affiliates and New York Life Investments and its affiliates. In addition, the Board considered its review of a money market fund advised by New York Life Investments and an affiliated subadvisor that serves as an investment option for the Portfolio, including the potential rationale for and costs associated with investments in this money market fund by the Portfolio, if any, and considered information from New York Life Investments that the nature and type of specific investment advisory services provided to this money market fund are distinct from, or in addition to, the investment advisory services provided to the Portfolio. In addition, the Board requested and reviewed information regarding the Portfolio's securities lending activity and the corresponding potential dividend received tax deduction for insurance company affiliates of New York Life Investments.

The Board noted that the Portfolio serves as an investment option primarily under variable contracts issued by affiliates of New York Life Investments that would receive fees under those contracts. The Board observed that, in addition to fees earned by New York Life Investments for managing the Portfolio, New York Life Investments' affiliates also earn revenues from serving the Portfolio in various other capacities, including as the Portfolio's distributor. The Board considered information about these other revenues and their impact on the profitability of the relationship with the Portfolio to New York Life Investments and its affiliates. The Board noted that, although it assessed the overall profitability of the Portfolio to New York Life Investments and its affiliates as part of the contract review process, when considering the reasonableness of the fee paid to New York Life Investments and its affiliates under each of the Advisory Agreements, the Board considered the profitability of New York Life Investments' relationship with the Portfolio on a pre-tax basis and without regard to distribution expenses incurred by New York Life Investments from its own resources.

After evaluating the information deemed relevant by the Trustees, the Board concluded that any profits realized by New York Life Investments and its affiliates due to their relationships with the Portfolio were not excessive. With respect to Mellon, the Board considered that any profits realized by Mellon due to its relationship with the Portfolio are the result of arm's-length negotiations between New York Life Investments and Mellon, acknowledging that any such profits are based on the subadvisory fee paid to Mellon by New York Life Investments, not the Portfolio.

Board Consideration and Approval of Management Agreement and Subadvisory Agreement (Unaudited) (continued)

Management and Subadvisory Fees and Total Ordinary Operating Expenses

The Board evaluated the reasonableness of the fee paid under each of the Advisory Agreements and the Portfolio's total ordinary operating expenses. The Board primarily considered the reasonableness of the management fee paid by the Portfolio to New York Life Investments, because the subadvisory fee paid to Mellon is paid by New York Life Investments, not the Portfolio. The Board also considered the reasonableness of the subadvisory fee paid by New York Life Investments and the amount of the management fee retained by New York Life Investments.

In assessing the reasonableness of the Portfolio's fees and expenses, the Board primarily considered comparative data provided by Strategic Insight on the fees and expenses charged by similar mutual funds managed by other investment advisers. In addition, the Board considered information provided by New York Life Investments and Mellon on fees charged to other investment advisory clients, including institutional separate accounts and/or other funds that follow investment strategies similar to those of the Portfolio, if any. The Board considered the similarities and differences in the contractual management fee schedules of the Portfolio and these similarly-managed accounts and/or funds, taking into account the rationale for any differences in fee schedules. The Board also took into account explanations provided by New York Life Investments about the more extensive scope of services provided to registered investment companies, such as the Portfolio, as compared with other investment advisory clients. Additionally, the Board considered the impact of any contractual breakpoints and voluntary waivers on the Portfolio's net management fee and expenses. The Board also considered that in proposing fees for the Portfolio, New York Life Investments considers the competitive marketplace for mutual funds.

Based on the factors outlined above, the Board concluded that the Portfolio's management fee and total ordinary operating expenses were within a range that is competitive and support a conclusion that these fees and expenses are reasonable.

Economies of Scale

The Board considered information regarding economies of scale, including whether the Portfolio's expense structure permits economies of scale to be appropriately shared with the Portfolio's beneficial shareholders. The Board also considered a report from New York Life Investments, previously prepared at the request of the Board, that addressed economies of scale, including with respect to the mutual fund business generally and the various ways in which the benefits of economies of scale may be shared with the funds in the MainStay Group of Funds. Although the Board recognized the difficulty of determining future economies of scale with precision, the Board acknowledged that economies of scale may be shared with the Portfolio in a number of ways, including, for example, through the imposition of management fee breakpoints, initially setting management fee rates at scale or making additional investments to enhance services. The Board reviewed information from New York Life Investments showing how the Portfolio's management fee schedule compared to fee schedules of other funds and accounts managed by New York Life Investments. The Board also reviewed information from Strategic Insight showing how the Portfolio's

management fee schedule compared with fees paid for similar services by peer funds at varying asset levels.

Based on this information, the Board concluded that economies of scale are appropriately reflected for the benefit of the Portfolio's beneficial shareholders through the Portfolio's expense structure and other methods to share benefits from economies of scale.

Conclusion

On the basis of the information and factors summarized above and the evaluation thereof, the Board, including the Independent Trustees voting separately, unanimously voted to approve the continuation of each of the Advisory Agreements.

Proxy Voting Policies and Procedures and Proxy Voting Record

A description of the policies and procedures that New York Life Investments uses to vote proxies related to the Portfolio's securities 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.

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. 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.

Board of Trustees and Officers (Unaudited)

The Trustees and officers of the Funds are listed below. The Board oversees the MainStay Group of Funds (which consists of MainStay Funds and MainStay Funds Trust), MainStay VP Funds Trust, MainStay MacKay DefinedTerm Municipal Opportunities Fund, the Manager and the Subadvisors, and elects the officers of the Funds who are responsible for the day-to-day operations of the Funds. Information pertaining to the Trustees and officers is set forth below. Each Trustee serves until his or her successor is elected and qualified or until his or her

resignation, death or removal. Under the Board's retirement policy, unless an exception is made, a Trustee must tender his or her resignation by the end of the calendar year during which he or she reaches the age of 75. Officers are elected annually by the Board. The business address of each Trustee and officer listed below is 51 Madison Avenue, New York, New York 10010. A majority of the Trustees are not "interested persons" (as defined by the 1940 Act and rules adopted by the SEC thereunder) of the Fund ("Independent Trustees").

	Name and Date of Birth	Term of Office, Position(s) Held and Length of Service	Principal Occupation(s) During Past Five Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee
Interested Trustee	Yie-Hsin Hung* 8/12/62	MainStay VP Funds Trust: Trustee since 2017	Senior Vice President of New York Life since joining in 2010, Member of the Executive Management Committee since 2017, Chief Executive Officer, New York Life Investment Management Holdings LLC & New York Life Investment Management LLC since 2015. Senior Managing Director and Co-President of New York Life Investment Management LLC from January 2014 to May 2015. Previously held positions of increasing responsibility, including head of NYLIM International, Alternative Growth Businesses, and Institutional investments since joining New York Life in 2010.	76	<i>MainStay Funds:</i> Trustee since 2017 (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2017 (32 Funds); and <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee since 2017.

* This Trustee is considered to be an "interested person" of the MainStay Group of Funds within the meaning of the 1940 Act because of her affiliation with New York Life Insurance Company, New York Life Investment Management LLC, Candriam Belgium, S.A., Candriam Luxembourg, S.C.A., MacKay Shields LLC, NYL Investors LLC, NYLIFE Securities LLC and/or NYLIFE Distributors LLC, as described in detail above in the column entitled "Principal Occupation(s) During Past Five Years."

Independent Trustees

Name and Date of Birth	Term of Office, Position(s) Held and Length of Service	Principal Occupation(s) During Past Five Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee
David H. Chow 12/29/57	MainStay VP Funds Trust: Trustee since 2016, Advisory Board Member (June 2015 to December 2015).	Founder and CEO, DanCourt Management, LLC (since 1999)	76	<i>MainStay Funds:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015) (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015) (32 Funds); <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015); <i>Market Vectors Group of Exchange-Traded Funds:</i> Independent Chairman of the Board of Trustees since 2008 and Trustee since 2006 (57 portfolios); and <i>Berea College of Kentucky:</i> Trustee since 2009.
Susan B. Kerley 8/12/51	MainStay VP Funds Trust: Chairman since January 2017 and Trustee since 2007***	President, Strategic Management Advisors LLC (since 1990)	76	<i>MainStay Funds:</i> Chairman since 2017 and Trustee since 2007 (12 Funds); <i>MainStay Funds Trust:</i> Chairman since 2017 and Trustee since 1990. (32 Funds)**; <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Chairman since 2017 and Trustee since 2011; and <i>Legg Mason Partners Funds:</i> Trustee since 1991 (54 portfolios).
Alan R. Latshaw 3/27/51	MainStay VP Funds Trust: Trustee since 2007***.	Retired; Partner, Ernst & Young LLP (2002 to 2003); Partner, Arthur Andersen LLP (1989 to 2002); Consultant to the MainStay Funds Audit and Compliance Committee (2004 to 2006)	76	<i>MainStay Funds:</i> Trustee since 2006 (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2007. (32 Funds)** <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee and Audit Committee Financial Expert since 2011; <i>State Farm Associates Funds Trusts:</i> Trustee since 2005 (4 portfolios); <i>State Farm Mutual Fund Trust:</i> Trustee since 2005 (15 portfolios); and <i>State Farm Variable Product Trust:</i> Trustee since 2005 (9 portfolios).
Richard H. Nolan, Jr. 11/16/46	MainStay VP Funds Trust: Trustee since 2006***.	Managing Director, ICC Capital Management (since 2004); President—Shields/Alliance, Alliance Capital Management (1994 to 2004)	76	<i>MainStay Funds:</i> Trustee since 2007 (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2007 (32 Funds)**; and <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee since 2011.

Independent Trustees

Name and Date of Birth	Term of Office, Position(s) Held and Length of Service	Principal Occupation(s) During Past Five Years	Number of Portfolios in Fund Complex Overseen by Trustee	Other Directorships Held by Trustee
Jacques P. Perold 5/12/58	MainStay VP Funds Trust: Trustee since 2016, Advisory Board Member (June 2015 to December 2015).	Retired; President, Fidelity Management & Research Company (2009 to 2014); Founder, President and Chief Executive Officer, Geode Capital Management, LCC (2001 to 2009)	76	<i>MainStay Funds:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015) (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015) (32 Funds); <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee since 2016, Advisory Board Member (June 2015 to December 2015); <i>Allstate Corporation:</i> Director since 2015; <i>MSCI, Inc.:</i> Director since 2017 and <i>Boston University:</i> Trustee since 2014.
Richard S. Trutanic 2/13/52	MainStay VP Funds Trust: Trustee since 2007***.	Chairman and Chief Executive Officer, Somerset & Company (financial advisory firm) (since 2004); Managing Director, The Carlyle Group (private investment firm) (2002 to 2004); Senior Managing Director, Partner and Board Member, Groupe Arnault S.A. (private investment firm) (1999 to 2002)	76	<i>MainStay Funds:</i> Trustee since 1994 (12 Funds); <i>MainStay Funds Trust:</i> Trustee since 2007 (32 Funds)**; and <i>MainStay MacKay DefinedTerm Municipal Opportunities Fund:</i> Trustee since 2011.

** Includes prior service as a Director/Trustee of certain predecessor entities to MainStay Funds Trust.

*** Includes prior service as a Director of MainStay VP Series Fund, Inc., the predecessor to MainStay VP Funds Trust.

Officers of the Trust (Who are not Trustees)*

Name and Date of Birth	Position(s) Held and Length of Service	Principal Occupation(s) During Past Five Years
Kirk C. Lehneis 6/29/74	President, MainStay VP Funds Trust (since 2017)	Chief Operating Officer and Senior Managing Director (since 2016), New York Life Investment Management LLC; Chairman of the Board (since 2017), NYLIFE Distributors LLC; Chairman of the Board, NYLIM Service Company LLC (since 2017); Trustee, President and Principal Executive Officer of IndexIQ Trust, IndexIQ ETF Trust and IndexIQ Active ETF Trust (since January 2018); President, MainStay MacKay DefinedTerm Municipal Opportunities Fund, MainStay Funds and MainStay Funds Trust (since 2017)**; Senior Managing Director, Global Product Development (From 2015—2016); Managing Director, Product Development (From 2010—2015), New York Life Investment Management LLC
Jack R. Benintende 5/12/64	Treasurer and Principal Financial and Accounting Officer, MainStay VP Funds Trust (since 2007)**	Managing Director, New York Life Investment Management LLC (since 2007); Treasurer and Principal Financial and Accounting Officer, MainStay MacKay DefinedTerm Municipal Opportunities Fund (since 2011), MainStay Funds Trust (since 2009) and MainStay Funds (since 2007); and Assistant Treasurer, New York Life Investment Management Holdings LLC (2008 to 2012)
Kevin M. Bopp 2/24/69	Vice President and Chief Compliance Officer, MainStay VP Funds Trust (since 2014)	Chief Compliance Officer, New York Life Investment Management LLC, IndexIQ Trust, IndexIQ ETF Trust and IndexIQ Active ETF Trust (since 2016), Director and Associate General Counsel (2011 to 2014) and Vice President and Assistant General Counsel (2010 to 2011), New York Life Investment Management LLC; Vice President and Chief Compliance Officer, MainStay Funds, MainStay Funds Trust and MainStay MacKay DefinedTerm Municipal Opportunities Fund (since 2014); Assistant Secretary, MainStay Funds, MainStay Funds Trust and MainStay VP Funds Trust (2010 to 2014)**, MainStay MacKay DefinedTerm Municipal Opportunities Fund (2011 to 2014)
J. Kevin Gao 10/13/67	Secretary and Chief Legal Officer, MainStay VP Funds Trust (since 2010)**	Managing Director and Associate General Counsel, New York Life Investment Management LLC (since 2010); Secretary and Chief Legal Officer, MainStay MacKay DefinedTerm Municipal Opportunities Fund (since 2011), MainStay Funds and MainStay Funds Trust (since 2010)
Scott T. Harrington 2/8/59	Vice President—Administration, MainStay VP Funds Trust (since 2005)**	Managing Director, New York Life Investment Management LLC (including predecessor advisory organizations) (since 2000); Member of the Board of Directors, New York Life Trust Company (since 2009); Vice President—Administration, MainStay MacKay DefinedTerm Municipal Opportunities Fund (since 2011), MainStay Funds Trust (since 2009) and MainStay Funds (since 2005)

* The officers listed above are considered to be “interested persons” of the MainStay Group of Funds, MainStay VP Funds Trust and MainStay MacKay Defined Term Municipal Opportunities Fund within the meaning of the 1940 Act because of their affiliation with the MainStay Group of Funds, New York Life Insurance Company and/or its affiliates, including New York Life Investment Management LLC, NYLIM Service Company LLC, NYLIFE Securities LLC and/or NYLIFE Distributors LLC, as described in detail in the column captioned “Principal Occupation(s) During Past Five Years.” Officers are elected annually by the Board.

** Includes prior service as an Officer of MainStay VP Series Fund, Inc., the predecessor to MainStay VP Funds Trust.

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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 Portfolios

MainStay VP Eagle Small Cap Growth Portfolio
MainStay VP Emerging Markets Equity Portfolio
MainStay VP Epoch U.S. Equity Yield Portfolio
MainStay VP Fidelity Institutional AM® Utilities Portfolio†
MainStay VP Large Cap Growth Portfolio
MainStay VP MacKay Common Stock Portfolio
MainStay VP MacKay Growth Portfolio
MainStay VP MacKay International Equity Portfolio
MainStay VP MacKay Mid Cap Core Portfolio
MainStay VP MacKay S&P 500 Index Portfolio
MainStay VP MacKay Small Cap Core Portfolio
MainStay VP Mellon Natural Resources Portfolio
MainStay VP T. Rowe Price Equity Income Portfolio

Mixed Asset Portfolios

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

Income Portfolios

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 Unconstrained Bond Portfolio
MainStay VP PIMCO Real Return Portfolio

Money Market

MainStay VP U.S. Government Money Market Portfolio

Alternative

MainStay VP Cushing Renaissance Advantage Portfolio
MainStay VP IQ Hedge Multi-Strategy Portfolio

Asset Allocation Portfolios

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

Manager

New York Life Investment Management LLC
New York, New York

Subadvisors

Candriam Belgium S.A.*
Brussels, Belgium

Cushing Asset Management, LP
Dallas, Texas

Eagle Asset Management, Inc.
St Petersburg, Florida

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

T. Rowe Price Associates, Inc.
Baltimore, Maryland

Winslow Capital Management, LLC
Minneapolis, Minnesota

Distributor

NYLIFE Distributors LLC*
Jersey City, New Jersey

Custodian

State Street Bank and Trust Company
Boston, Massachusetts

Independent Registered Public Accounting Firm

PricewaterhouseCoopers LLP
New York, New York

Legal Counsel

Dechert LLP
Washington, District of Columbia

Some Portfolios may not be available in all products.

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* An affiliate of New York Life Investment Management LLC

2019 Annual 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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