MainStay VP Wellington Small Cap Portfolio
Formerly MainStay VP MacKay Small Cap Core Portfolio

To Statutory Prospectus  To Statement of Additional Information

Before you invest, you may want to review the Portfolio's Prospectus, which contains more information about the Portfolio and its risks. You can find the Portfolio’s Prospectus, reports to shareholders and other information about the Portfolio by going online to newyorklifeinvestments.com, by calling 800-598-2019 or by sending an e-mail to MainStayShareholderServices@nylim.com. The Portfolio’s Prospectus and Statement of Additional Information, both dated May 1, 2021, as may be amended from time to time, are incorporated by reference into this Summary Prospectus.

Investment Objective
The Portfolio seeks long-term growth of capital.

Fees and Expenses of the Portfolio
The table below describes the fees and expenses that you may pay if you buy, hold and sell shares of the Portfolio. The table does not include any separate account or policy fees or charges imposed under the variable annuity policies and variable universal life insurance policies for which the Portfolio is an investment option. If they were included, your costs would be higher. Investors should consult the applicable variable annuity policy or variable universal life insurance policy prospectus for more information.

| Initial Class | Management Fees (as an annual percentage of the Portfolio’s average daily net assets) | 0.80% |
| | Distribution and Service (12b-1) Fees | None |
| | Other Expenses | 0.06% |
| Total Annual Portfolio Operating Expenses | | 0.86% |
| Waiver / Reimbursement | | (0.12)% |
| Total Annual Portfolio Operating Expenses After Waivers / Reimbursements | | 0.74% |

1. The management fee is as follows: 0.80% on assets up to $1 billion; 0.775% on assets from $1 billion to $2 billion; and 0.75% on assets over $2 billion.

2. New York Life Investment Management LLC (“New York Life Investments”) has contractually agreed to waive fees and/or reimburse expenses so that Total Annual Portfolio Operating Expenses (excluding taxes, interest, litigation, extraordinary expenses, brokerage and other transaction expenses relating to the purchase or sale of portfolio investments, and acquired (underlying) portfolio/fund fees and expenses) of Initial Class shares do not exceed 0.74% of the Portfolio’s average daily net assets. This agreement will remain in effect until May 1, 2022, and shall renew automatically for one-year terms unless New York Life Investments provides written notice of termination prior to the start of the next term or upon approval of the Board of Trustees of the Portfolio.

Example
The Example is intended to help you compare the cost of investing in the Portfolio with the cost of investing in other mutual funds. The Example does not include any separate account or policy fees or charges imposed under the variable annuity policies and variable universal life insurance policies for which the Portfolio is an investment option. If they were included, your costs would be higher. The Example assumes that you invest $10,000 in the Portfolio for the time periods indicated whether or not you redeem all of your shares at the end of those periods. The Example also assumes that your investment has a 5% return each year and that the Portfolio’s operating expenses remain the same. The Example reflects the contractual fee waiver and/or expense reimbursement arrangement, if applicable, for the current duration of the arrangement only. Although your actual costs may be higher or lower, based on these assumptions your costs would be:

| Initial Class | 1 Year | 3 Years | 5 Years | 10 Years |
| | $76 | $262 | $465 | $1,050 |

Portfolio Turnover
The Portfolio pays transaction costs, such as commissions, when it buys and sells securities (or “turns over” its portfolio). A higher portfolio turnover rate may indicate higher transaction costs. These costs, which are not reflected in annual Portfolio operating expenses or in the Example, affect the Portfolio’s performance. During the most recent fiscal year, the Portfolio’s portfolio turnover rate was 225% of the average value of its portfolio.

Principal Investment Strategies
The Portfolio invests, under normal circumstances, at least 80% of its assets (net assets plus any borrowings for investment purposes) in the securities of U.S. companies with market capitalizations at the time of investment that are similar to the Russell 2000® Index (which ranged from $44.3 million to $19.4 billion as of February 28, 2021). Generally, an issuer of a security is considered to be a U.S. issuer based on the issuer’s “country of risk,” as determined by a third-party service provider such as Bloomberg.
Investment Process: Wellington Management Company LLP, the Portfolio’s Subadvisor (the “Subadvisor”), seeks to achieve the Portfolio’s investment objective by allocating the Portfolio’s assets among multiple internal portfolio management teams that employ investment strategies with different investment styles, including, Small Cap Value Opportunities, Select Small Cap Growth and Small Companies Strategies. Each investment strategy has distinct investment philosophies and analytical processes to identify securities for purchase or sale.

Collectively, the investment styles represent a range of investment philosophies, companies, and industries. The Subadvisor may give consideration to financially material environmental, social and/or governance (“ESG”) criteria including, but not limited to, climate mitigation and resilience, corporate culture, as well as executive compensation and senior-level succession planning. When evaluating investments for the Portfolio, the Subadvisor has access to proprietary ESG research to help evaluate a company’s risk and return potential. The Subadvisor believes the integration of financially material ESG factors into its investment process allows it to better assess strategic business issues that may impact the performance of a company. ESG factors are one of several factors considered when making an investment decision for the Portfolio. The Subadvisor has discretion to determine the materiality of as well as the level at which financially relevant ESG factors are imbedded into its overall fundamental analysis when making an investment decision. The Subadvisor also engages with management of certain companies regarding corporate governance practices as well as what it deems to be materially important environmental and/or social issues facing a company.

Small Cap Value Opportunities Strategy: The Subadvisor’s Small Cap Value Opportunities team seeks to invest in quality companies at a substantial discount that often arises when the market is concerned about the companies’ future. The Small Cap Value Opportunities team believes those concerns can become mispriced due to the presence of biases or change and that research specifically focused on identifying signs of biases and change allows the Small Cap Value Opportunities team to identify mispriced stocks. Change can include secular or cyclical shifts, changes in industry structure, changes in management, or significant shifts in the return on (and of) capital, balance sheet and cash flows. Biases include anchoring (relying too heavily on the first piece of information) and availability (relying on examples that immediately come to mind). The Small Cap Value Opportunities team seeks to maximize a combination of valuation, capital returns, and quality.

Select Small Cap Growth Strategy: The Subadvisor’s Select Small Cap Growth team focuses on identifying investment opportunities in emerging and re-emerging growth companies. Emerging growth companies are companies that are poised to accelerate top-line and/or bottom-line growth, and re-emerging growth companies are companies that are approaching a return to rapid growth. The Select Small Cap Growth team believes the typical profile of an emerging growth company is one that offers disruptive technologies, innovative business models, or is in a rapidly growing market segment. The Select Small Cap Growth team believes that re-emerging growth companies are typically experiencing turnarounds or management changes or are in cyclical industries.

Small Companies Strategy: The Subadvisor’s Small Companies team seeks to construct a broadly diversified portfolio across sectors and industries using fundamental analysis to identify a universe of undervalued and overvalued securities. The Small Companies team employs a traditional, bottom-up fundamental research approach to identify securities with potential positive inflections in business momentum (i.e., whether a company’s share price is trending up or down) that the Small Companies team believes have the most potential to appreciate, while seeking to limit exposure to risk. The Small Companies team also seeks to minimize exposure to risk by diversifying investments over securities issued by a large number of companies across various industries and sectors.

Other Strategies: New York Life Investment Management LLC and/or the Subadvisor may modify the strategies summarized above and allocate the Portfolio’s assets among or to other strategies, such as event-driven, economic sector, or valuation measures, developed or implemented based on, among other factors, changing market conditions.

Principal Risks

You can lose money by investing in the Portfolio. An investment in the Portfolio is not a bank deposit and is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other governmental agency. The investments selected by the Subadvisor may underperform the market in which the Portfolio invests or other investments. The Portfolio may receive large purchase or redemption orders which may have adverse effects on performance if the Portfolio were required to sell securities, invest cash or hold a relatively large amount of cash at times when it would not otherwise do so.

The principal risks of investing in the Portfolio are summarized below.

Market Risk: The value of the Portfolio’s investments may fluctuate because of changes in the markets in which the Portfolio invests, which could cause the Portfolio to underperform other funds with similar investment objectives and strategies. Such changes may be rapid and unpredictable. From time to time, markets may experience periods of stress for potentially prolonged periods that may result in: (i) increased market volatility; (ii) reduced market liquidity; and (iii) increased redemptions of Portfolio shares. Such conditions may add significantly to the risk of volatility in the net asset value of the Portfolio’s shares.

Portfolio Management Risk: The investment strategies, practices and risk analyses used by the Subadvisor may not produce the desired results. There is a risk that if the Portfolio’s strategy of allocating assets among different portfolio management teams does not work as intended, the Portfolio may not achieve its objective or may underperform other funds with similar investment strategies. The investment styles employed by the portfolio managers may not be complementary, which could adversely affect the performance of the Portfolio. The Subadvisor may give consideration to certain ESG criteria when evaluating an investment opportunity. The application of ESG criteria may result in the Portfolio (i) having exposure to certain securities or industry sectors that are significantly different from the composition of the Portfolio’s benchmark; and (ii) performing differently than other funds and strategies in its peer group that do not take into account ESG criteria or the Portfolio’s benchmark.

Small-Cap and Mid-Cap Stock Risk: The general risks associated with equity securities and liquidity risk are particularly pronounced for stocks of companies with market capitalizations that are small compared to other publicly traded companies. These companies may have limited product lines, markets or financial resources or they may depend on a few key employees. Stocks of small-capitalization and mid-capitalization companies may trade less frequently and in lesser volume than more widely held securities, and their values may fluctuate more sharply than those of other securities. They may also trade in the over-the-counter market or on a regional exchange, or may otherwise have limited liquidity. Generally, the smaller the company, the greater these risks become.

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**Equity Securities Risk:** Investments in common stocks and other equity securities are particularly subject to the risk of changing economic, stock market, industry and company conditions and the risks inherent in the portfolio managers' ability to anticipate such changes that can adversely affect the value of the Portfolio’s holdings.

**Growth Stock Risk:** If growth companies do not increase their earnings at a rate expected by investors, the market price of the stock may decline significantly, even if earnings show an absolute increase. Growth company stocks also typically lack the dividend yield that can cushion stock prices in market downturns.

**Value Stock Risk:** Value stocks may never reach what the Subadvisor believes is their full value or they may go down in value. In addition, different types of stocks tend to shift in and out of favor depending on market and economic conditions, and therefore the Portfolio’s performance may be lower or higher than that of funds that invest in other types of equity securities.

### Past Performance

The following bar chart and table indicate some of the risks of investing in the Portfolio. The bar chart shows you how the Portfolio’s calendar year performance has varied over time. The average annual total returns table shows how the Portfolio’s average annual total returns compare to those of a broad-based securities market index. Separate variable annuity and variable universal life insurance account and policy fees and charges are not reflected in the bar chart and table. If they were, returns would be less than those shown. The Portfolio has selected the Russell 2000® Index as its primary benchmark. The Russell 2000® Index measures the performance of the small-cap segment of the U.S. equity universe. It is a subset of the Russell 3000® Index and includes approximately 2,000 of the smallest securities based on a combination of their market cap and current index membership.

Past performance is not necessarily an indication of how the Portfolio will perform in the future. The Portfolio’s subadvisor changed effective January 1, 2018 due to an organizational restructuring whereby all investment personnel of Cornerstone Capital Management Holdings LLC, the former subadvisor, transitioned to MacKay Shields LLC.

Effective May 1, 2021, the Portfolio replaced its subadvisor and modified its principal investment strategies. The past performance in the bar chart and table prior to that date reflects the Portfolio’s prior subadvisor and principal investment strategies.

### Annual Returns, Initial Class Shares
(by calendar year 2017-2020)

<table>
<thead>
<tr>
<th>Year</th>
<th>Initial Class</th>
<th>Russell 2000® Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>13.93%</td>
<td>19.96%</td>
</tr>
<tr>
<td>2018</td>
<td>-15.11%</td>
<td>-30%</td>
</tr>
<tr>
<td>2019</td>
<td>17.82%</td>
<td>-10%</td>
</tr>
<tr>
<td>2020</td>
<td>10.22%</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Best Quarter:** Q4/2020 27.56%

**Worst Quarter:** Q1/2020 -33.93%

### Average Annual Total Returns (for the periods ended December 31, 2020)

<table>
<thead>
<tr>
<th></th>
<th>Inception</th>
<th>1 Year</th>
<th>Since Inception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Class</td>
<td>5/2/2016</td>
<td>10.22%</td>
<td>9.02%</td>
</tr>
<tr>
<td>Russell 2000® Index</td>
<td></td>
<td>19.96%</td>
<td>14.05%</td>
</tr>
</tbody>
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### Management

New York Life Investment Management LLC serves as the Portfolio’s Manager. Wellington Management Company LLP serves as the Subadvisor. The individuals listed below are jointly and primarily responsible for the day-to-day portfolio management of the Portfolio.

<table>
<thead>
<tr>
<th>Subadvisor</th>
<th>Portfolio Managers</th>
<th>Portfolio Service Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wellington Management Company LLP</td>
<td>Gregg R. Thomas, Senior Managing Director, Roberto J. Isch, Managing Director</td>
<td>Since May 2021</td>
</tr>
</tbody>
</table>

### How to Purchase and Sell Shares

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”) and may also be offered to fund variable annuity policies and variable universal life insurance policies through other distribution channels.
policies issued by other insurance companies. Shares of the Portfolio are also offered as underlying investments of the MainStay VP Asset Allocation Portfolios (“Asset Allocation Portfolios”) and other variable insurance funds.

Individual investors do not transact directly with the Portfolio to purchase and redeem shares. Rather, investors select underlying investment options offered by the applicable policy. Please refer to the prospectus for the variable annuity policy or variable universal life insurance policy that offers the Portfolio as an underlying investment option for information on the allocation of premium payments and on transfers among the investment divisions of the separate account.

**Tax Information**

Because the Portfolio’s shareholders are the separate accounts of NYLIAC or other insurance companies through which you purchased your variable annuity policy or variable universal life insurance policy and the Asset Allocation Portfolios and other variable insurance funds, no discussion is included here as to the federal income tax consequences at the shareholder level. For information concerning the federal income tax consequences to variable annuity and variable universal life insurance policy owners, consult the prospectus relating to the appropriate policy.

**Compensation to Broker/Dealers and Other Financial Intermediaries**

The Portfolio and/or its related companies may pay NYLIAC or other participating insurance companies, broker/dealers, or other financial intermediaries for the sale of Portfolio shares and related services. These payments may create a conflict of interest by influencing the broker/dealer or other financial intermediary or your sales person to recommend the Portfolio over another investment and/or a policy that offers this Portfolio over another investment. Ask your individual salesperson or visit your broker/dealer’s or other financial intermediary firm’s website for more information. For additional information about these payments, please see the section entitled “The Fund and its Management” in the Prospectus.

*New York Life Investments* is both a service mark, and the common trade name, of certain investment advisors affiliated with New York Life Insurance Company.