MainStay VP T. Rowe Price Equity Income 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 nylinvestments.com/vpdocuments, 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, 2020, as may be amended from time to time, are incorporated by reference into this Summary Prospectus.

Beginning on January 1, 2021, paper copies of a Portfolio’s annual and semi-annual shareholder reports will no longer be sent by mail, unless you specifically request paper copies of the reports from the insurance company that offers your policy. Instead, the reports will be made available online, and you will be notified by mail and provided with a website address to access the report. Instructions for requesting paper copies will be provided by your insurance company.

If you already elected to receive shareholder reports electronically, you will not be affected by this change and you need not take any action. At any time, you may elect to receive reports and other communications from the insurance company electronically by following the instructions provided by the insurance company.

You may elect to receive all future shareholder reports in paper form free of charge. You can inform the insurance company that you wish to receive paper copies of reports by following the instructions provided by the insurance company. Your election to receive reports in paper form will apply to all portfolio companies available under your contract.

Investment Objective
The Portfolio seeks a high level of dividend income and long-term capital growth primarily through investments in stocks.

Fees and Expenses of the Portfolio
The table below describes the fees and expenses that you may pay if you buy and hold 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.

<table>
<thead>
<tr>
<th>Fees and Expenses of the Portfolio</th>
<th>Initial Class</th>
<th>Service Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Fees (as an annual percentage of the Portfolio's average daily net assets)</td>
<td>0.72%</td>
<td>0.72%</td>
</tr>
<tr>
<td>Distribution and Service (12b-1) Fees</td>
<td>None</td>
<td>0.25%</td>
</tr>
<tr>
<td>Other Expenses</td>
<td>0.03%</td>
<td>0.03%</td>
</tr>
<tr>
<td><strong>Total Annual Portfolio Operating Expenses</strong></td>
<td>0.75%</td>
<td>1.00%</td>
</tr>
</tbody>
</table>

1. The management fee is as follows: 0.725% on assets up to $500 million; 0.70% on assets from $500 million to $1 billion; and 0.675% on assets over $1 billion.

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:

<table>
<thead>
<tr>
<th>Initial Class</th>
<th>Service Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Year</td>
<td>3 Years</td>
</tr>
<tr>
<td>Initial Class</td>
<td>$ 77</td>
</tr>
<tr>
<td>Service Class</td>
<td>$ 102</td>
</tr>
</tbody>
</table>

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 16% of the average value of its portfolio.

Principal Investment Strategies
The Portfolio, under normal circumstances, will invest at least 80% of its assets (net assets plus any borrowings for investment purposes) in common stocks, with an emphasis on large-capitalization stocks that have strong track records of paying dividends or that are believed to be undervalued.
T. Rowe Price Associates, Inc., the Portfolio’s Subadvisor, typically employs a “value” approach in selecting investments. The Subadvisor seeks companies that appear to be undervalued by various measures and may be temporarily out of favor but have good prospects for capital appreciation and dividend growth.

In selecting investments, the Subadvisor generally looks for companies in the aggregate with one or more of the following characteristics:

- an established operating history;
- above-average dividend yield relative to the broader equity market;
- a low price/earnings ratio relative to the broader equity market;
- a sound balance sheet and other positive financial characteristics; and
- a low stock price relative to a company’s underlying value as measured by assets, cash flow, or business franchises.

The Portfolio generally seeks investments in large capitalization companies and the Portfolio’s yield, which reflects the level of dividends paid by the Portfolio, is expected to normally exceed the yield of the Russell 1000® Value Index. In pursuing its investment objective, the Portfolio has the discretion to deviate from its normal investment criteria.

These situations might arise when the Subadvisor believes a security could increase in value for a variety of reasons, including an extraordinary corporate event, a new product introduction or innovation, a favorable competitive development, or a change in management.

While most assets will typically be invested in U.S. common stocks, the Portfolio may invest up to 25% of its total assets in foreign stocks in keeping with the Portfolio’s objectives. The Portfolio may invest up to 10% of its total assets in below investment grade quality debt instruments (commonly referred to as high-yield securities or “junk bonds”). The Portfolio may also invest up to 10% of its total assets in hybrid instruments. The Portfolio may at times invest significantly in certain sectors, such as the financials sector.

The Portfolio may sell securities for a variety of reasons, such as to secure gains, limit losses, or redeploy assets into more promising opportunities.

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### 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. In addition, the Portfolio may not achieve its investment objective, including during periods in which the Subadvisor takes temporary positions in response to unusual or adverse market, economic or political conditions, or other unusual or abnormal circumstances.

**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 manager’s ability to anticipate such changes that can adversely affect the value of the Portfolio’s holdings.

**Dividend-Paying Stock Risk:** The Portfolio’s emphasis on equity and equity-related securities that produce income or other distributions subjects the Portfolio to the risk that such securities may fall out of favor with investors and underperform the market. Depending upon market conditions, income producing stocks that meet the Portfolio’s investment criteria may not be widely available and/or may be highly concentrated in only a few market sectors. This may limit the ability of the Portfolio to produce current income while remaining fully diversified. Also, an issuer may reduce or eliminate its income payments or other distributions, particularly during a market downturn. The distributions received by the Portfolio may not qualify as income for Portfolio investors.

**Market Capitalization Risk:** To the extent the Portfolio invests in securities issued by small-, mid-, or large-cap companies, the Portfolio will be subject to the risks associated with securities issued by companies of the applicable market capitalization. Securities of small-cap and mid-cap companies may be subject to greater price volatility, significantly lower trading volumes, cyclical, static or moderate growth prospects and greater spreads between their bid and ask prices than securities of larger companies. Smaller capitalization companies frequently rely on narrower product lines and niche markets and may be more vulnerable to adverse business or market developments. Securities issued by larger companies may have less growth potential and may not be able to attain the high growth rates of successful smaller companies, especially during strong economic periods. In addition, larger companies may be less capable of responding quickly to competitive challenges and industry changes, including those resulting from improvements in technology, and may suffer sharper price declines as a result of earnings disappointments. There is a risk that the securities issued by companies of a certain market capitalization may underperform the broader market at any given time.

**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.
Foreign Securities Risk: Investments in foreign (non-U.S.) securities may be riskier than investments in U.S. securities. Foreign regulatory regimes and securities markets can have less stringent investor protections and disclosure standards and less liquid trading markets than U.S. regulatory regimes and securities markets, and can experience political, social and economic developments that may affect the value of the Portfolio’s investments in foreign securities. Foreign securities may also subject the Portfolio’s investments to changes in currency rates. Changes in the value of foreign currencies may make the return on an investment increase or decrease, unrelated to the quality or performance of the investment itself. These risks may be greater with respect to securities of companies that conduct their business activities in emerging markets or whose securities are traded principally in emerging markets.

Debt Securities Risk: The risks of investing in debt or fixed-income securities include (without limitation): (i) credit risk, e.g., the issuer or guarantor of a debt security may be unable or unwilling (or be perceived as unable or unwilling) to make timely principal and/or interest payments or otherwise honor its obligations, or changes in an issuer’s credit rating or the market’s perception of an issuer’s creditworthiness may affect the value of the Portfolio’s investments; (ii) maturity risk, e.g., a debt security with a longer maturity may fluctuate in value more than one with a shorter maturity; (iii) market risk, e.g., low demand for debt securities may negatively impact their price; (iv) interest rate risk, e.g., when interest rates go up, the value of a debt security generally goes down, and when interest rates go down, the value of a debt security generally goes up (long-term debt securities are generally more susceptible to interest rate risk than short-term debt securities); and (v) call or prepayment risk, e.g., during a period of falling interest rates, the issuer may redeem a security by repaying it early, which may reduce the Portfolio’s income if the proceeds are reinvested at lower interest rates.

Interest rate risk is the risk that the value of the Portfolio’s investments in fixed income or debt securities will change because of changes in interest rates. There is a risk that interest rates across the financial system may change, possibly significantly and/or rapidly. Changes in interest rates or a lack of market participants may lead to decreased liquidity and increased volatility in the fixed-income or debt markets, making it more difficult for the Portfolio to sell its fixed-income or debt holdings. Decreased liquidity in the fixed-income or debt markets also may make it more difficult to value some or all of the Portfolio’s fixed-income or debt holdings. For most fixed-income investments, when market interest rates fall, prices of fixed-rate debt securities rise. However, when market interest rates fall, prices of certain variable and fixed-rate debt securities may be adversely affected (i.e., falling interest rates bring the possibility of prepayment risk, as an instrument may be redeemed before maturity).

Not all U.S. government debt securities are guaranteed by the U.S. government—some are backed only by the issuing agency, which must rely on its own resources to repay the debt. The Portfolio’s yield will fluctuate with changes in short-term interest rates. Additionally, the risks of municipal bonds include the ability of the issuer to repay the obligation, the relative lack of information about certain issuers, and the possibility of future tax and legislative changes, which could affect the market for and value of municipal securities.

High-Yield Securities Risk: Investments in high-yield securities or non-investment grade securities (commonly referred to as “junk bonds”) are considered speculative because investments in such securities present a greater risk of loss than investments in higher quality securities. Such securities may, under certain circumstances, be less liquid than higher rated securities. These securities pay investors a premium (a high interest rate or yield) because of the potential illiquidity and increased risk of loss. These securities can also be subject to greater price volatility. In times of unusual or adverse market, economic or political conditions, these securities may experience higher than normal default rates.

Hybrid Instruments Risk: A hybrid instrument is a type of derivative that can combine the characteristics of different types of investments. Hybrids can have volatile prices and limited liquidity, and their use may not be successful.

Liquidity and Valuation Risk: The Portfolio’s investments may be illiquid at the time of purchase or liquid at the time of purchase and subsequently become illiquid due to, among other things, events relating to the issuer of the securities, market events, operational issues, economic conditions, investor perceptions or lack of market participants. The lack of an active trading market may make it difficult to sell or obtain an accurate price for a security. If market conditions or issuer specific developments make it difficult to value securities, the Portfolio may value these securities using more subjective methods, such as fair value pricing. In such cases, the value determined for a security could be different than the value realized upon such security’s sale. As a result, an investor could pay more than the market value when buying shares or receive less than the market value when selling shares. This could affect the proceeds of any redemption or the number of shares an investor receives upon purchase.

The Portfolio is subject to the risk that it could not meet redemption requests within the allowable time period without significant dilution of remaining investors’ interests in the Portfolio. To meet redemption requests or to raise cash to pursue other investment opportunities, the Portfolio may be forced to sell securities at an unfavorable time and/or under unfavorable conditions, which may adversely affect the Portfolio.

Sector Risk: At times, the Portfolio may have a significant portion of its assets invested in securities of companies conducting business in a broadly related group of industries within an economic sector. Companies in the same economic sector may be similarly affected by economic or market events, making the Portfolio more vulnerable to unfavorable developments in that economic sector than funds that invest more broadly. For example, the Portfolio may have a significant portion of its assets invested in securities of companies in the financial sector. Companies in the financial sector may be adversely impacted by, among other things, regulatory changes, economic conditions, interest rates, credit rating downgrades and decreased liquidity in credit markets.

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 two broad-based securities market indices. 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 1000® Value Index as its primary benchmark. The Russell 1000® Value Index measures the performance of the large-cap value segment of the U.S. equity universe. It includes those Russell 1000® Index companies with lower price-to-book ratios and lower expected growth rates. The Portfolio has selected the Standard & Poor’s 500 Index (“S&P 500® Index”) as its secondary benchmark. The S&P 500® Index is widely regarded as the standard index for measuring large-cap U.S. stock market performance.

Performance data for the classes varies based on differences in their fee and expense structures. Past performance is not necessarily an indication of how the Portfolio will perform in the future.
Annual Returns, Initial Class Shares
(by calendar year 2013-2019)

<table>
<thead>
<tr>
<th>Year</th>
<th>Return</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>30.36%</td>
</tr>
<tr>
<td>2014</td>
<td>7.74%</td>
</tr>
<tr>
<td>2015</td>
<td>-6.78%</td>
</tr>
<tr>
<td>2016</td>
<td>18.82%</td>
</tr>
<tr>
<td>2017</td>
<td>16.20%</td>
</tr>
<tr>
<td>2018</td>
<td>-9.38%</td>
</tr>
<tr>
<td>2019</td>
<td>26.36%</td>
</tr>
</tbody>
</table>

Best Quarter 1Q/13 11.30%
Worst Quarter 4Q/18 -12.41%

Average Annual Total Returns (for the periods ended December 31, 2019)

<table>
<thead>
<tr>
<th></th>
<th>Inception</th>
<th>1 Year</th>
<th>5 Years</th>
<th>Since Inception</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial Class</td>
<td>2/17/2012</td>
<td>26.36%</td>
<td>8.07%</td>
<td>10.74%</td>
</tr>
<tr>
<td>Service Class</td>
<td>2/17/2012</td>
<td>26.04%</td>
<td>7.80%</td>
<td>10.46%</td>
</tr>
<tr>
<td>Russell 1000® Value Index</td>
<td>2/17/2012</td>
<td>26.54%</td>
<td>8.29%</td>
<td>11.96%</td>
</tr>
<tr>
<td>S&amp;P 500® Index</td>
<td></td>
<td>31.49%</td>
<td>11.70%</td>
<td>13.96%</td>
</tr>
</tbody>
</table>

Management

New York Life Investment Management LLC serves as the Portfolio's Manager. T. Rowe Price Associates, Inc. serves as the Subadvisor. The individual listed below is primarily responsible for the day-to-day portfolio management of the Portfolio.

Subadvisor Portfolio Manager Portfolio Service Date

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 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.

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