



MainStay VP American Century Sustainable Equity Portfolio

Formerly 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 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, 2022, as may be amended from time to time, are incorporated by reference into this Summary Prospectus.

Investment Objective

The Portfolio seeks long-term capital growth. Income is a secondary objective.

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 |
|--|---------------|
| Annual Portfolio Operating Expenses (fees paid directly from your investment) | |
| Management Fees (as an annual percentage of the Portfolio's average daily net assets) ¹ | 0.63% |
| Distribution and Service (12b-1) Fees | None |
| Other Expenses | 0.04% |
| Total Annual Portfolio Operating Expenses | 0.67% |

1. Restated to reflect current management fees. The management fee is as follows: 0.63% on assets up to \$500 million; 0.61% on assets from \$500 million to \$1 billion; and 0.585% on assets above \$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:

| | 1 Year | 3 Years | 5 Years | 10 Years |
|---------------|--------|---------|---------|----------|
| Initial Class | \$ 68 | \$ 214 | \$ 373 | \$ 835 |

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 18% of the average value of its portfolio.

Principal Investment Strategies

The Portfolio will generally invest in large capitalization companies it believes show sustainable business improvement using a proprietary multi-factor quantitative model that combines financial measures of a stock's value, growth potential and price momentum with environmental, social, and governance ("ESG") metrics. The model assigns each security a financial metrics score and an ESG score that are combined on an equal basis to create an overall score. To measure value, American Century Investment Management, Inc., the Portfolio's Subadvisor, may use ratios of stock price-to-earnings and stock price-to-cash flow. To measure growth, the Subadvisor may use the rate of growth of a company's earnings and cash flow and changes in its earnings estimates. The Subadvisor arrives at an ESG score by evaluating multiple metrics of each ESG characteristic—environmental, social, and governance. The Subadvisor utilizes internal data and research, as well as third-party commercial data sources and scoring systems, to evaluate each security's ESG characteristics. For example, the Subadvisor will consider, among others, a company's carbon emission profile (environmental), a company's employee turnover rates and digital privacy (social), and a company's corporate leadership, including board chair independence and the independence of audit and compensation committees

(governance). If information on a specific metric is unavailable, the security may still be selected for the portfolio if the Subadvisor believes it can evaluate the security qualitatively or if the financial metrics and remaining ESG scores merit investment.

Final scores for each security are assigned by the Subadvisor's multi-factor quantitative model and are evaluated on a sector-specific basis, and the Portfolio seeks to hold securities with the highest scores in their respective sectors. Using this process, the Subadvisor attempts to build a portfolio that has sustainable competitive advantages, provides better returns without taking on significant additional risk and maintains a stronger ESG profile than the S&P 500® Index.

Under normal circumstances, the Portfolio invests at least 80% of its assets (net assets plus any borrowing for investment purposes) in sustainable equity securities. Equity securities include common stock, preferred stock and equity-equivalent securities, such as securities convertible into common stock, stock futures contracts or stock index futures contracts. The Subadvisor defines sustainable equity securities as those that the Subadvisor's proprietary model assigns an ESG score that is in the top three quartiles (i.e. top 75%) of the ESG scores the model assigns to all the securities in the Portfolio's primary benchmark, the Standard & Poor's 500® Index ("S&P 500® Index"), which ranged from \$6.3 billion to \$2.7 trillion as of February 28, 2022.

While the Portfolio generally invests in large capitalization companies, it may invest in companies of any market capitalization. The Portfolio defines large capitalization companies as companies with capitalizations in the capitalization range of the S&P 500® Index.

Effective May 1, 2022, the Portfolio replaced its subadvisor and modified its principal investment strategies. In the process of implementing the new principal investment strategies, the Portfolio experienced a high level of portfolio turnover.

Although the Subadvisor intends to invest the Portfolio's assets primarily in securities of U.S. companies, the Portfolio may invest in securities of foreign companies. An issuer of a security is considered to be United States or foreign based on the issuer's "country of risk," as determined by a third-party service provider, such as Bloomberg.

When determining whether to sell a security, the Subadvisor considers, among other things, a security's price, whether a security's risk parameters outweigh its return opportunities, general market conditions and whether the security meets the Subadvisor's ESG criteria.

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. The Subadvisor will give consideration to certain environmental, social, and governance ("ESG") criteria when evaluating an investment opportunity. The application of ESG criteria may result in the Fund (i) having exposure to certain securities or industry sectors that are significantly different than the composition of the Fund'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 Fund's benchmark.

High Portfolio Turnover Risk: Effective May 1, 2022, the Portfolio replaced its subadvisor and modified its principal investment strategies. In the process of implementing the new principal investment strategies, the Portfolio experienced a high level of portfolio turnover. A high turnover rate (at or over 100%) may increase transaction costs, which are paid by the Portfolio.

Sustainable Investing Risk: The Subadvisor gives consideration to ESG criteria when evaluating investment opportunities for the Portfolio, consistent with the Portfolio's investment objective and principal investment strategies. The application of ESG criteria may result in the Portfolio forgoing opportunities to buy certain investments when it might otherwise be advantageous to do so, or selling investments for ESG reasons when it might be otherwise disadvantageous for it to do so. The application of ESG criteria may result in the Portfolio (i) having exposure to certain securities or industry sectors that are significantly different than the composition of the Portfolio's benchmark and (ii) performing differently than the Portfolio's benchmark or other funds and strategies in the Portfolio's peer group that do not take into account ESG criteria or use different ESG criteria or ESG investment strategies. In addition, sectors and securities of companies that meet the ESG criteria may shift into and out of favor depending on market and economic conditions. The consideration of ESG criteria may adversely affect the Portfolio's performance. The Portfolio's ESG criteria may be changed without shareholder approval. Furthermore, ESG information from third-party data providers may be incomplete, inaccurate or unavailable and third party ESG scores and other data may only take into account one or a few of many ESG-related components of portfolio companies, which could cause the Subadvisor to incorrectly assess a company's ESG characteristics. ESG information, whether from an external and/or internal source, is, by nature and in many instances, based on a qualitative and subjective assessment. Moreover, the third-party data providers may differ in the data they provide for a given security or between industries, or may only take into account one of many ESG-related components of a company.

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 a portfolio managers' ability to anticipate such changes that can adversely affect the value of the Portfolio's holdings.

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. Economic sanctions may be, and have been, imposed against certain countries, organizations, companies, entities and/or individuals. Economic sanctions and other similar governmental actions or developments could, among other things, effectively restrict or eliminate the Portfolio's ability to purchase or sell certain foreign securities or groups of foreign securities, and thus may make the Portfolio's investments in such securities less liquid or more difficult to value. Such sanctions may also cause a decline in the value of securities issued by the sanctioned country or companies located in or economically tied to the sanctioned country. In addition, as a result of economic sanctions and other similar governmental actions or developments, the Portfolio may be forced to sell or otherwise dispose of foreign investments at inopportune times or prices. 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.

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.

Derivatives Risk: Derivatives are investments whose value depends on (or is derived from) the value of an underlying instrument, such as a security, asset, reference rate or index. Derivative strategies may expose the Portfolio to greater risk than if it had invested directly in the underlying instrument and often involve leverage, which may exaggerate a loss, potentially causing the Portfolio to lose more money than it originally invested and would have lost had it invested directly in the underlying instrument. Derivatives may be difficult to sell, unwind and/or value. Derivatives may also be subject to counterparty risk, which is the risk that the counterparty (the party on the other side of the transaction) on a derivative transaction will be unable or unwilling to honor its contractual obligations to the Portfolio. Futures may be more volatile than direct investments in the instrument underlying the contract, and may not correlate perfectly to the underlying instrument. Futures and other derivatives also may involve a small initial investment relative to the risk assumed, which could result in losses greater than if they had not been used. Due to fluctuations in the price of the underlying instrument, the Portfolio may not be able to profitably exercise an option and may lose its entire investment in an option. To the extent that the Portfolio writes or sells an option, if the decline in the value of the underlying instrument is significantly below the exercise price in the case of a written put option or increase above the exercise price in the case of a written call option, the Portfolio could experience a substantial loss. Derivatives may also increase the expenses of the Portfolio.

Correlation Risk: The Portfolio's performance will be similar to the performance of its benchmark, the S&P 500® Index. If the Portfolio's benchmark goes down, it is likely that the Portfolio's performance will go down. There is no assurance that the investment performance of the Portfolio will equal or exceed that of the S&P 500® Index.

Past Performance

The following bar chart and table provide some indication of the risks of investing in the Portfolio by showing changes in the Portfolio's performance from year to year and by showing how the Portfolio's average annual returns compare with those of two broad-based securities market indices over time. 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 S&P 500® Index as a replacement for the Russell 1000® Value Index as its primary benchmark because it believes that the S&P 500® Index is more reflective of its principal investment strategies.

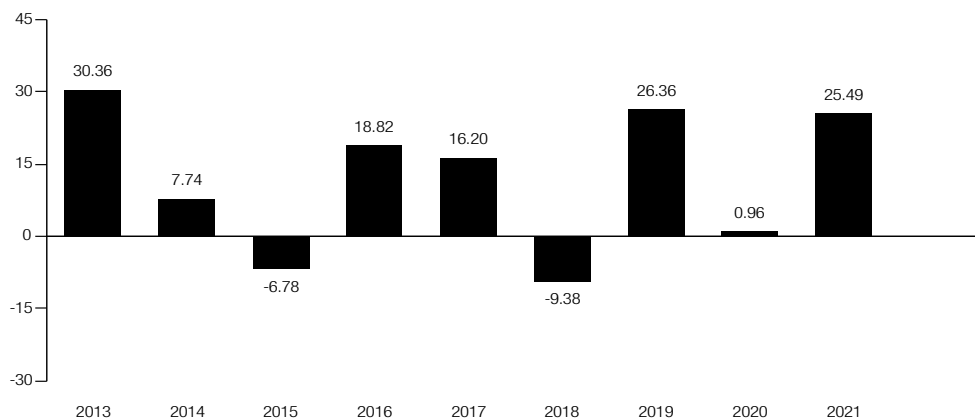
Index returns reflect no deductions for fees, expenses or taxes, except for foreign withholding taxes where applicable.

Past performance is not necessarily an indication of how the Portfolio will perform in the future.

Effective May 1, 2022, the Portfolio replaced its subadvisor, changed its investment objective 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, investment objective and principal investment strategies.

Annual Returns, Initial Class Shares

(by calendar year 2013-2021)



Best Quarter

| | |
|----------|--------|
| 2020, Q4 | 20.90% |
|----------|--------|

Worst Quarter

| | |
|----------|---------|
| 2020, Q1 | -28.53% |
|----------|---------|

Average Annual Total Returns (for the periods ended December 31, 2021)

| | Inception | 1 Year | 5 Years | Since Inception |
|--|-----------|--------|---------|-----------------|
| Initial Class | 2/17/2012 | 25.49% | 11.01% | 11.10% |
| S&P 500® Index ¹ | | 28.71% | 18.47% | 15.82% |
| Russell 1000® Value Index ² | | 25.16% | 11.16% | 12.26% |

1. The S&P 500® Index is widely regarded as the standard index for measuring large-cap U.S. stock market performance.

2. 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 values.

Management

New York Life Investment Management LLC serves as the Portfolio's Manager. American Century Investment Management, Inc. serves as the Subadvisor. The individuals listed below are jointly and primarily responsible for the day-to-day portfolio management of the Portfolio.

| Subadvisor | Portfolio Manager | Portfolio Service Date |
|--|--|------------------------|
| American Century Investment Management, Inc. | Justin M. Brown, Vice President, Portfolio Manager | Since May 2022 |
| | Joseph Reiland, Vice President, Senior Portfolio Manager | Since May 2022 |
| | Robert J. Bove, Portfolio Manager | Since May 2022 |

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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