### **▶BNY** | INVESTMENTS

# BNY Mellon Sustainable U.S. Equity Portfolio, Inc.

Summary Prospectus | May 1, 2025

Initial Shares Service Shares

Before you invest, you may want to review the fund's prospectus, which contains more information about the fund and its risks. You can find the fund's prospectus and other information about the fund, including the statement of additional information and most recent reports to shareholders, online at www.bny.com/investments/variable. You can also get this information at no cost by calling 1-800-373-9387 (inside the U.S. only) or by sending an e-mail request to info@bny.com. The fund's prospectus and statement of additional information, dated May 1, 2025 (each as revised or supplemented), are incorporated by reference into this summary prospectus.

#### **Investment Objective**

The fund seeks long-term capital appreciation.

#### Fees and Expenses

This table describes the fees and expenses that you may pay if you buy, hold and sell shares of the fund. You may pay other fees, such as brokerage commissions and other fees to financial intermediaries, which are not reflected in the table and examples below. These figures also do not reflect any fees or charges imposed by participating insurance companies under their Variable Annuity contracts (VA contracts) or Variable Life Insurance policies (VLI policies), and, if such fees and/or charges were included, the fees and expenses would be higher.

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)				
	Initial Shares	Service Shares		
Management fees	.60	.60		
Distribution and/or service (12b-1) fees	none	.25		
Other expenses:				
Shareholder services fees	$.00^*$	none		
Miscellaneous other expenses	.07	.07		
Total other expenses	.07	.07		
Total annual fund operating expenses	.67	.92		

<sup>\*</sup> Amount represents less than .01%.

#### Example

The Example is intended to help you compare the cost of investing in the fund with the cost of investing in other mutual funds. The Example assumes that you invest \$10,000 in the fund for the time periods indicated and then hold or 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 fund's operating expenses remain the same. The Example does not reflect fees and expenses incurred under VA contracts and VLI policies; if they were reflected, the figures in the Example would be higher. 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 Shares	\$68	\$214	\$373	\$835
Service Shares	\$94	\$293	\$509	\$1,131

#### **Portfolio Turnover**

The fund pays transaction costs, such as commissions, when it buys and sells securities (or "turns over" its portfolio). A higher portfolio turnover may indicate higher transaction costs. These costs, which are not reflected in annual fund operating expenses or in the Example, affect the fund's performance. During the most recent fiscal year, the fund's portfolio turnover rate was 25.32% of the average value of its portfolio.

#### **Principal Investment Strategy**

To pursue its goal, the fund normally invests at least 80% of its net assets, plus any borrowings for investment purposes, in equity securities of U.S. companies that demonstrate attractive investment attributes and sustainable business practices and have no material unresolvable environmental, social and governance (ESG) issues. The fund's sub-adviser, Newton Investment Management Limited (NIM), an affiliate of BNY Mellon Investment Adviser, Inc. (BNYIA), considers a company to be engaged in "sustainable business practices" if the company engages in business practices that are, in NIM's view, sustainable in an economic sense (i.e., the company's strategy, operations and finances are stable and durable), and takes appropriate measures to manage any material consequences or impact of its policies and operations in relation to ESG matters (e.g., the company's environmental footprint, labor standards, board structure, etc.). Companies engaged in sustainable business practices also may include companies that have committed explicitly to improving their environmental and/or social impacts that will lead to a transformation of their business models. No investment will be made in a company that is considered to be out of line with NIM's sustainable investment process. Examples of such companies may include: tobacco companies due to the health implications of smoking; a company with a large carbon footprint that has no emission reduction plan; or a company that is in direct conflict with the goals of the UN Global Compact (a voluntary corporate initiative that seeks to advance universal principles on human rights, labor, environment and anti-corruption).

The fund invests principally in common stocks. The fund may invest in the stocks of companies with any market capitalization, but focuses on companies with market capitalizations of \$5 billion or more at the time of purchase. The fund may invest up to 20% of its net assets in the stocks of foreign companies, including up to 10% of its net assets in the securities of issuers in emerging market countries, that demonstrate attractive investment attributes and sustainable business practices and are considered to be in line with NIM's sustainable investment process. In addition, the fund may, from time to time, invest a significant portion (more than 20%) of its total assets in securities of companies in certain sectors. As of December 31, 2024, a significant portion of the fund's portfolio was invested in securities of companies in the technology sector.

NIM seeks attractively-priced companies (determined using both qualitative and quantitative fundamental analysis as described under "Fundamental Research and Analysis" below) that NIM believes are well-managed, have good products or services, have strategic direction and have adopted, or are making progress towards, a sustainable business approach. These are companies that NIM believes should benefit from favorable long-term trends. When selecting stocks for the fund's portfolio, NIM uses an investment process that combines investment themes with fundamental research and analysis, with the consideration of ESG matters.

Investment Themes. Part of NIM's investment philosophy is the belief that no company, market or economy can be considered in isolation; each must be understood within a broader context. Therefore, NIM's global industry analysts and responsible investment team consider the context provided by a series of global investment themes, which are designed to define the broader social, financial and political environment as a framework for understanding events, trends and competitive pressures worldwide.

Fundamental Research and Analysis. NIM next conducts fundamental analysis of investment opportunities and uses cross comparisons of companies to identify securities that NIM believes will outperform. NIM investment professionals are responsible for idea generation and selection through investment analysis in a collaborative team environment. Investment professionals are expected to deliver clear and accountable investment recommendations supporting the portfolio construction efforts. NIM's multi-dimensional research platform plays an integral part in the fundamental investment process, delivering insights that NIM believes are key to navigating the fast-changing market environment. In reviewing potential investments, NIM may assess, among other factors, a company's price-to-earnings ratio, positive earnings momentum, earnings per share growth expectations, and earnings stability. NIM also utilizes a variety of valuation techniques, which may include earnings, asset value, cash flow and cost of capital measurements, in conducting its fundamental analysis.

In addition, NIM integrates the consideration of material ESG issues through, among other aspects of its investment process, NIM's ESG review of each individual company, prior to an investment being made in an equity security of a company for the first time. NIM's ESG review is designed to identify potential ESG-related risks and opportunities, and incorporates qualitative and quantitative information and data from internal and external (e.g., index providers and consultants) sources, including research, reports, screenings, ratings and/or analysis.

Sustainable Investment Process. Following the fundamental research and analysis, NIM then employs a sustainable investment process that incorporate elements of negative screening alongside other general and security level (i.e., in terms of a company's activities) ESG-related analysis, using similar data sources as those in the ESG review. Ultimately, in keeping with the investment strategy of the fund, the sustainable investment process seeks to:

- identify and avoid companies that participate in specific areas of activity that NIM deems to be materially harmful from an environmental or social perspective, or do not follow good governance practices. For example, NIM could deem companies that have large carbon footprints without an emissions reduction plan, companies with poor labor standards, or companies that are in direct conflict with the goals of the UN Global Compact ineligible for investment.

- identify and invest in companies that are proactively seeking to manage environmental and/or social factors to generate sustainable returns. This may also include those companies that are contributing to the development of solutions that seek to address environmental and/or social issues, examples of which could include more efficient or reduced use of natural resources or accessibility to healthcare.

There may be situations where the fund will invest in a security of a company that has been identified by NIM as having involvement in potentially harmful activities from an environmental or social perspective. This may arise for certain companies whose activities or operations, typically due to a legacy business mix, have created poor environmental or social outcomes, but are now investing and positively adapting to future needs (for example, this may include energy companies that are preparing for a transition to a lower carbon world). Similarly, in some instances, the fund may invest in a security of a company where NIM determines prevailing ESG information and data provided by external ESG rating providers have not fully captured positive environmental or social-related initiatives of the company.

Ongoing Monitoring. NIM monitors companies held in the fund's portfolio for emerging negative environmental, social or governance issues. This is done through a combination of ongoing qualitative and quantitative research. This research may be supported by engagement with a company's management, including discussion of material ESG issues where relevant. NIM may engage with selected companies to understand better a company's approach to managing emerging ESG issues. NIM may also specifically engage with companies identified as transitioning away from environmentally or socially harmful activities, to help determine the progress being made in achieving their objectives, supporting the changes being made or encouraging further enhancements. NIM also makes use of a variety of third-party data and research providers that allow it to monitor changes in the ESG characteristics of a company. NIM typically exercises voting rights at each shareholder meeting of companies held in the fund's portfolio. This activity is undertaken in-house to ensure that the opinions expressed through NIM's voting record are in line with NIM's investment and engagement priorities.

If the fund invests in a company that is subsequently considered to be out of line with NIM's sustainable investment process, NIM will sell the security in a prudent manner, within a predetermined timeframe. In addition, NIM typically will consider selling a security held by the fund as a result of one or more of the following:

- price movement and market activity have created an excessive valuation;
- the valuation of the company has become expensive relative to its peers;
- there has been a significant change in the prospects of the company;
- there has been a change in NIM's view of global investment themes (as described above); or
- profit-taking.

#### **Principal Risks**

An investment in the fund is not a bank deposit. It is not insured or guaranteed by the Federal Deposit Insurance Corporation (FDIC) or any other government agency. It is not a complete investment program. The fund's share price fluctuates, sometimes dramatically, which means you could lose money.

- Risks of stock investing: Stocks generally fluctuate more in value than bonds and may decline significantly over short time periods. There is the chance that stock prices overall will decline because stock markets tend to move in cycles, with periods of rising prices and falling prices. The market value of a stock may decline due to general market conditions or because of factors that affect the particular company or the company's industry.
- Sustainable investment approach risk: The fund's sustainable investment approach may cause it to make different investments than funds that invest principally in equity securities of U.S. companies that do not incorporate sustainable investment criteria when selecting investments. Under certain economic conditions, this could cause the fund to underperform funds that do not incorporate similar criteria. For example, the incorporation of sustainable investment criteria may result in the fund forgoing opportunities to buy certain securities when it might otherwise be advantageous to do so or selling securities when it might otherwise be disadvantageous for the fund to do so. The incorporation of sustainable investment criteria may also affect the fund's exposure to certain sectors and/or types of investments, and may adversely impact the fund's performance depending on whether such sectors or investments are in or out of favor in the market. NIM's security selection process incorporates ESG data provided by third parties, which may be limited for certain companies and/or only take into account one or a few ESG related components. In addition, ESG data may include qualitative and/or quantitative measures, and consideration of this data may be subjective. Different methodologies may be used by the various data sources that provide ESG data. ESG data from third parties used by NIM as part of its sustainable investment process often lacks standardization, consistency and transparency, and for certain companies such data may not be available, complete or accurate. NIM's evaluation of ESG factors relevant to a particular company may be adversely affected in such instances. As a result, the fund's investments may differ from, and potentially underperform, funds that incorporate ESG data from other sources or utilize other methodologies.

- Large-cap stock risk: To the extent the fund invests in large capitalization stocks, the fund may underperform funds that invest primarily in the stocks of lower quality, smaller capitalization companies during periods when the stocks of such companies are in favor.
- Growth and value stock risk: By investing in a mix of growth and value companies, the fund assumes the risks of both. Investors often expect growth companies to increase their earnings at a certain rate. If these expectations are not met, investors can punish the stocks inordinately, even if earnings do increase. Value stocks involve the risk that they may never reach their expected full market value, either because the market fails to recognize the stock's intrinsic worth or the expected value was misgauged.
- Technology company risk: The technology sector has been among the most volatile sectors of the stock market. Technology companies involve greater risk because their revenue and/or earnings tend to be less predictable (and some companies may be experiencing significant losses) and their share prices tend to be more volatile. Certain technology companies may have limited product lines, markets or financial resources, or may depend on a limited management group. In addition, these companies are strongly affected by worldwide technological developments, and their products and services may not be economically successful or may quickly become outdated. Investor perception may play a greater role in determining the day-to-day value of tech stocks than it does in other sectors. Fund investments made in anticipation of future products and services may decline dramatically in value if the anticipated products or services are delayed or cancelled.
- Market risk: The value of the securities in which the fund invests may be affected by political, regulatory, economic and social developments, and developments that impact specific economic sectors, industries or segments of the market. In addition, turbulence in financial markets and reduced liquidity in equity, credit and/or fixed-income markets may negatively affect many issuers, which could adversely affect the fund. Global economies and financial markets are becoming increasingly interconnected, and conditions and events in one country, region or financial market may adversely impact issuers in a different country, region or financial market. These risks may be magnified if certain events or developments adversely interrupt the global supply chain; in these and other circumstances, such risks might affect companies world-wide.
- Management risk: The investment process used by the fund's sub-adviser could fail to achieve the fund's investment goal and cause your fund investment to lose value.

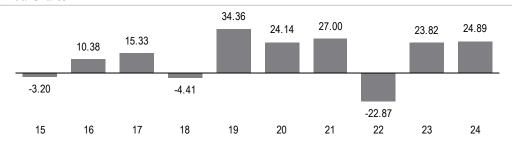
#### **Performance**

The following bar chart and table provide some indication of the risks of investing in the fund. The bar chart shows changes in the performance of the fund's Initial shares from year to year. The table compares the average annual total returns of the fund's shares to those of the S&P 500® Index, a broad measure of market performance. The fund's past performance is not necessarily an indication of how the fund will perform in the future. Performance for each share class will vary due to differences in expenses. More recent performance information may be available at <a href="https://www.bny.com/investments">www.bny.com/investments</a>.

The fund changed its investment objective and strategy on May 1, 2017. Prior to May 1, 2017, the fund's investment objective was to provide capital growth, with current income as a secondary goal. To pursue these goals, until May 1, 2017, the fund, under normal circumstances, invested in the common stocks of companies that, in the opinion of the fund's management, met traditional investment standards and conducted their business in a manner that contributed to the enhancement of the quality of life in America. To determine whether a company contributed to the enhancement of the quality of life in America, the fund considered the company's record in the areas of (1) protection and improvement of the environment and the proper use of natural resources, (2) occupational health and safety, (3) consumer protection and product purity, and (4) equal employment opportunity. In addition, prior to May 1, 2017, investment decisions for the fund were made by investment professionals of another affiliate of BNYIA, who managed the fund as employees of BNYIA.

Performance information reflects the fund's expenses only and does not reflect the fees and charges imposed by participating insurance companies under their VA contracts or VLI policies. Because these fees and charges will reduce total return, policyowners should consider them when evaluating and comparing the fund's performance. Policyowners should consult the prospectus for their contract or policy for more information.

## Year-by-Year Total Returns as of 12/31 each year (%) Initial Shares



During the periods shown in the chart: Best Quarter 2020, Q2: 21.89 Worst Quarter 2020, Q1: (16.33)

Average Annual Total Returns (as of 12/31/24)					
	1 Year	5 Years	10 Years		
Initial Shares	24.89%	13.46%	11.52%		
Service Shares	24.58%	13.18%	11.25%		
<b>S&amp;P 500® Index</b> reflects no deductions for fees, expenses or taxes	25.02%	14.52%	13.10%		

#### **Portfolio Management**

The fund's investment adviser is BNY Mellon Investment Adviser, Inc. (BNYIA). BNYIA has engaged its affiliate, Newton Investment Management Limited (NIM), to serve as the fund's sub-adviser.

NIM has engaged its affiliate, Newton Investment Management North America, LLC (NIMNA), to provide certain advisory services to NIM for the benefit of the fund, including, but not limited to, portfolio management services.

Nick Pope and Julianne McHugh are the fund's primary portfolio managers. Mr. Pope and Ms. McHugh have been primary portfolio managers of the fund since January 2022 and March 2023, respectively. Mr. Pope is a portfolio manager on the Sustainable Equity strategy at NIM. Ms. McHugh is Head of Sustainable Equities and a senior portfolio manager at NIMNA. NIM's Responsible Investment team provides input to the portfolio managers, including supporting fundamental research and company-level ESG analysis, which helps to identify sustainable investment themes, as well as controversy monitoring, company engagement and active proxy voting.

#### **Purchase and Sale of Fund Shares**

Fund shares are offered only to separate accounts established by insurance companies to fund VA contracts and VLI policies. Individuals may not purchase shares directly from, or place sell orders directly with, the fund. The VA contracts and the VLI policies are described in the separate prospectuses issued by the participating insurance companies, over which the fund assumes no responsibility. Policyowners should consult the prospectus of the separate account of the participating insurance company for more information about buying, selling (redeeming) or exchanging fund shares.

#### **Tax Information**

The fund's distributions are taxable as ordinary income or capital gains. Since the fund's shareholders are the participating insurance companies and their separate accounts, the tax treatment of dividends and distributions will depend on the tax status of the participating insurance company. Accordingly, no discussion is included as to the federal personal income tax consequences to policyowners. For this information, policyowners should consult the prospectus of the separate account of the participating insurance company or their tax advisers.

#### Payments to Broker-Dealers and Other Financial Intermediaries

If you purchase shares through a broker-dealer or other financial intermediary (such as an insurance company), the fund's distributor and its related companies may pay the intermediary for the sale of fund shares and related services. To the extent that the intermediary may receive lesser or no payments in connection with the sale of other investments, the payments from the fund's distributor and its related companies may create a potential conflict of interest by influencing the broker-dealer or other intermediary and your financial representative to recommend the fund over the other investments. This potential conflict of interest may be addressed by policies, procedures or practices adopted by the financial intermediary. As there may be many different policies, procedures or practices adopted by different intermediaries to address the manner in which compensation is earned through the sale of investments or the provision of related services, the compensation rates and other payment

arrangements that may apply to a financial intermediary and its representatives may vary by intermediary. Ask your financial representative or visit your financial intermediary's website for more information.

This prospectus does not constitute an offer or solicitation in any state or jurisdiction in which, or to any person to whom, such offering or solicitation may not lawfully be made.