April 30, 2021

Morgan Stanley Variable Insurance Fund, Inc.

Supplement dated April 30, 2021 to the Morgan Stanley Variable Insurance Fund, Inc. Prospectuses and Summary Prospectuses dated April 30, 2021

Growth Portfolio (the "Fund")

Effective at the close of business on May 21, 2021, the Fund will suspend offering Class I and Class II shares of the Fund to new investors. This suspension will restrict adding new insurance companies from a distribution standpoint. The Fund will continue to offer Class I and Class II shares of the Portfolio to existing shareholders (such as separate accounts of insurance companies established to fund variable life insurance and variable annuity contracts that currently hold shares of the Fund in such accounts). In addition, the Adviser, in its discretion, may make certain exceptions to the suspended offering of Class I and Class II shares of the Fund.

The Fund may recommence offering Class I and Class II shares of the Fund to new investors in the future. Any such offerings of the Fund's Class I and Class II shares may be limited in amount and may commence and terminate without any prior notice.

Morgan Stanley

INVESTMENT MANAGEMENT

Morgan Stanley Variable Insurance Fund, Inc. **Growth Portfolio**

Summary Prospectus | April 30, 2021

| Share Class and Ticker Symbols | |
|--------------------------------|--|
| Class II | |
| MEGTX | |

Before you invest, you may want to review the Fund's statutory prospectus ("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 ("SAI") and the most recent Annual and Semi-Annual Reports to Shareholders ("Shareholder Reports"), online at www.morganstanley.com/im/MSVIFGrowthII. You can also get this information at no cost by calling toll-free 1-866-414-6349 or by sending an e-mail request to orders@mysummaryprospectus.com. The Fund's Prospectus and SAI, both dated April 30, 2021 (as may be supplemented from time to time), are incorporated by reference into this Summary Prospectus.

Investment Objective

The Fund seeks long-term capital appreciation by investing primarily in growth-oriented equity securities of large capitalization companies.

Fees and Expenses

The table below describes the fees and expenses that you may pay if you buy, hold and sell Class II shares of the Fund. The Fund does not charge any sales loads or other fees when you purchase or redeem shares. The table and the example below do not reflect the impact of any charges by your insurance company. If they did, Total Annual Fund Operating Expenses would be higher. You may pay fees other than the fees and expenses of the Fund, such as brokerage commissions and other fees charged by financial intermediaries, which are not reflected in the tables and examples below.

Annual Fund Operating Expenses (expenses that you pay each year as a percentage of the value of your investment)

| Advisory Fee* | 0.50% |
|--|-------|
| Distribution (12b-1) Fee | 0.25% |
| Other Expenses** | 0.24% |
| Total Annual Fund Operating Expenses*** | 0.99% |
| Fee Waiver and/or Expense Reimbursement *** | 0.17% |
| Total Annual Fund Operating Expenses After Fee Waiver and/or Expense Reimbursement *** | 0.82% |

Example

The example below 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, your investment has a 5% return each year and that the Fund's operating expenses remain the same (except that the example incorporates the fee waiver and/or expense reimbursement arrangement for only the first year). Although your actual costs may be higher or lower, based on these assumptions, your costs would be:



e-DELIVERY: Go Paperless. It's faster, easier and greener. Sign up today at: **www.icsdelivery.com** *May not be available for all accounts.*

| | 1 Year | 3 Years | 5 Years | 10 Years |
|------------------|--------|---------|---------|----------|
| Growth Portfolio | \$84 | \$298 | \$531 | \$1,198 |

* "Advisory Fee" includes the management fee of a wholly-owned subsidiary of the Fund organized as a company under the laws of the Cayman Islands (the "Subsidiary"). The Fund's "Adviser," Morgan Stanley Investment Management Inc., has agreed to waive or credit a portion of the advisory fee in an amount equal to the management fee paid to the Adviser by the Subsidiary.

** "Other Expenses" include expenses of the Fund's most recent fiscal year and estimated expenses of the Subsidiary.

*** The Fund's Adviser has agreed to reduce its advisory fee and/or reimburse the Fund so that Total Annual Fund Operating Expenses, excluding acquired fund fees and expenses (as applicable), certain investment related expenses, taxes, interest and other extraordinary expenses (including litigation), will not exceed 0.82%. The fee waivers and/or expense reimbursements will continue for at least one year or until such time as the Company's Board of Directors acts to discontinue all or a portion of such waivers and/or reimbursements when it deems such action is appropriate.

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 rate may indicate higher transaction costs. These costs, which are not reflected in Total 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 55% of the average value of its portfolio.

Principal Investment Strategies

The Adviser seeks to achieve the Fund's investment objective by investing primarily in established and emerging companies, with capitalizations within the range of companies included in the Russell 1000[°] Growth Index. As of December 31, 2020, these market capitalizations ranged between \$564.5 million and \$2.1 trillion.

The Adviser emphasizes a bottom-up stock selection process, seeking attractive investments on an individual company basis. In selecting securities for investment, the Adviser typically invests in unique companies it believes have sustainable competitive advantages with above average business visibility, the ability to deploy capital at high rates of return, strong balance sheets and an attractive risk/reward.

The Adviser actively integrates sustainability into the investment process by using environmental, social and governance ("ESG") factors as a lens for additional fundamental research, which can contribute to investment decision-making. The Adviser seeks to understand how environmental and social initiatives within companies can create value by strengthening durable competitive advantages, creating growth opportunities, driving profitability and/or aligning with secular growth trends. The Adviser generally engages with company management teams to discuss their ESG practices, with the aim of identifying how sustainability themes present opportunities and risks that can be material to the value of the security over the long-term. Other aspects of the investment process include a proprietary, systematic evaluation of governance policies, specifically focusing on compensation alignment on long-term value creation. The Adviser does not treat ESG as a deterministic, reductive screen, nor as a portfolio construction tool layered on top of a passive vehicle.

The Fund may invest in equity securities. The Fund may also invest in privately placed and restricted securities.

The Adviser may invest up to 25% of the Fund's net assets in foreign securities, including emerging market securities classified as American Depositary Receipts ("ADRs"), Global Depositary Receipts ("GDRs"), American Depositary Shares ("ADSs") or Global Depositary Shares ("GDSs"), foreign U.S. dollar-denominated securities that are traded on a U.S. exchange or local shares of non-U.S. issuers.

Principal Risks

There is no assurance that the Fund will achieve its investment objective, and you can lose money investing in this Fund. The principal risks of investing in the Fund include:

- **Equity Securities.** In general, prices of equity securities are more volatile than those of fixed-income securities. The prices of equity securities fluctuate, and sometimes widely fluctuate, in response to activities specific to the issuer of the security as well as factors unrelated to the fundamental condition of the issuer, including general market, economic and political conditions.
- Foreign and Emerging Market Securities. Investments in foreign markets entail special risks such as currency, political, economic and market risks. There also may be greater market volatility, less reliable financial information, less stringent investor protections and disclosure standards, higher transaction and custody costs, decreased market liquidity and less government and exchange regulation associated with investments in foreign markets. In addition, investments in certain foreign markets that have historically been considered stable may become more volatile and subject to increased risk due to ongoing developments and changing conditions in such markets. Moreover, the growing interconnectivity of global economies and financial markets has increased the probability that adverse developments and conditions in one country or region will affect the stability of economies and financial markets in other countries or regions. Certain foreign markets may rely heavily on particular industries or foreign capital and are more vulnerable to diplomatic developments, the imposition of economic sanctions against a particular country or

countries, organizations, companies, entities and/or individuals, changes in international trading patterns, trade barriers and other protectionist or retaliatory measures. Investments in foreign markets may also be adversely affected by governmental actions such as the imposition of capital controls, nationalization of companies or industries, expropriation of assets or the imposition of punitive taxes. The governments of certain countries may prohibit or impose substantial restrictions on foreign investing in their capital markets or in certain sectors or industries. In addition, a foreign government may limit or cause delay in the convertibility or repatriation of its currency which would adversely affect the U.S. dollar value and/or liquidity of investments denominated in that currency. Certain foreign investments may become less liquid in response to market developments or adverse investor perceptions, or become illiquid after purchase by the Fund, particularly during periods of market turmoil. When the Fund holds illiquid investments, its portfolio may be harder to value. The risks of investing in emerging market countries are greater than the risks associated with investments in foreign developed countries. Certain emerging market countries may be subject to less stringent requirements regarding accounting, auditing, financial reporting and record keeping and therefore, material information related to an investment may not be available or reliable. In addition, the Fund is limited in its ability to exercise its legal rights or enforce a counterparty's legal obligations in certain jurisdictions outside of the United States, in particular, in emerging markets countries. In addition, the Fund's investments in foreign issuers may be denominated in foreign currencies and therefore, to the extent unhedged, the value of those investments will fluctuate with U.S. dollar exchange rates. To the extent hedged by the use of foreign currency forward exchange contracts, the precise matching of the foreign currency forward exchange contract amounts and the value of the securities involved will not generally be possible because the future value of such securities in foreign currencies will change as a consequence of market movements in the value of those securities between the date on which the contract is entered into and the date it matures. There is additional risk that such transactions may reduce or preclude the opportunity for gain if the value of the currency should move in the direction opposite to the position taken and that foreign currency forward exchange contracts create exposure to currencies in which the Fund's securities are not denominated. The use of foreign currency forward exchange contracts involves the risk of loss from the insolvency or bankruptcy of the counterparty to the contract or the failure of the counterparty to make payments or otherwise comply with the terms of the contract. Economic sanctions may be, and have been, imposed against certain countries, organizations, companies, entities and/or individuals. Economic sanctions and other similar governmental actions could, among other things, effectively restrict or eliminate the Fund's ability to purchase or sell securities or groups of securities, and thus may make the Fund's investments in such securities less liquid or more difficult to value. In addition, as a result of economic sanctions, the Fund may be forced to sell or otherwise dispose of investments at inopportune times or prices.

- Liquidity. The Fund may make investments that are illiquid or restricted or that may become less liquid in response to overall economic conditions or adverse investor perceptions, and which may entail greater risk than investments in other types of securities. These investments may be more difficult to value or sell, particularly in times of market turmoil, and there may be little trading in the secondary market available for particular securities. If the Fund is forced to sell an illiquid or restricted security to fund redemptions or for other cash needs, it may be forced to sell the security at a loss or for less than its fair value.
- **Private Placements and Restricted Securities.** The Fund's investments may include privately placed securities, which are subject to resale restrictions. These securities could have the effect of increasing the level of Fund illiquidity to the extent the Fund may be unable to sell or transfer these securities due to restrictions on transfers or on the ability to find buyers interested in purchasing the securities. Additionally, the market for certain investments deemed liquid at the time of purchase may become illiquid under adverse market or economic conditions.
- **Focused Investing.** To the extent that the Fund invests in a limited number of issuers, the Fund will be more susceptible to negative events affecting those issuers and a decline in the value of a particular instrument may cause the Fund's overall value to decline to a greater degree than if the Fund were invested more widely.
- Market and Geopolitical Risk. The value of your investment in the Fund is based on the values of the Fund's investments, which may change due to economic and other events that affect markets generally, as well as those that affect particular regions, countries, industries, companies or governments. These events may be sudden and unexpected, and could adversely affect the liquidity of the Fund's investments, which may in turn impact valuation, the Fund's ability to sell securities and/or its ability to meet redemptions. The risks associated with these developments may be magnified if certain social, political, economic and other conditions and events (such as war, natural disasters, epidemics and pandemics, terrorism, conflicts and social unrest) adversely interrupt the global economy and financial markets. It is difficult to predict when events affecting the U.S. or global financial markets may occur, the effects that such events may have and the duration of those effects (which may last for extended periods). These events may negatively impact broad segments of businesses and populations and have a significant and rapid negative impact on the performance of the Fund's investments, adversely affect and increase the volatility of the Fund's share price and exacerbate pre-existing risks to the Fund.

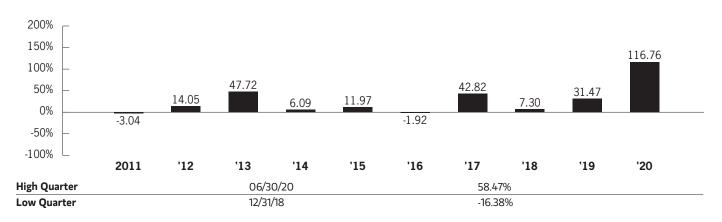
Shares of the Fund are not bank deposits and are not guaranteed or insured by the Federal Deposit Insurance Corporation or any other government agency.

Performance Information

The following bar chart and table provide some indication of the risks of investing in the Fund by showing changes in Fund's Class II shares' performance from year-to-year and by showing how the Fund's Class II shares' average annual returns for the past one, five and 10 year periods compare with those of a broad measure of market performance over time. This performance information does not include the impact of any charges deducted by your insurance company. If it did, returns would be lower. The Fund's past performance is not necessarily an indication of how the Fund will perform in the future.

Annual Total Returns—Calendar Years (Class II)

Commenced operations on May 5, 2003



Average Annual Total Returns (Class II)

(for the calendar periods ended December 31, 2020)

| | Past One Year | Past Five Years | Past Ten Years |
|---|------------------|--------------------|-------------------|
| Class II | | | |
| Return before Taxes | 116.76% | 33.77% | 23.58% |
| Russell 1000® Growth Index (reflects no deduction for fees, expenses or | | | |
| taxes) ¹ | 38.49% | 21.00% | 17.21% |

¹ The Russell 1000[®] Growth Index measures the performance of the large-cap growth segment of the U.S. equity universe. It includes those Russell 1000[®] Index companies with higher price-to-book ratios and higher forecasted growth values. The Russell 1000[®] Index is an index of approximately 1,000 of the largest U.S. companies based on a combination of market capitalization and current index membership. It is not possible to invest directly in an index.

Fund Management

Adviser. Morgan Stanley Investment Management Inc.

Portfolio Managers. The Fund is managed by members of Counterpoint Global. Information about the members jointly and primarily responsible for the day-to-day management of the Fund is shown below:

| Name | Title with Adviser | Date Began Managing Fund |
|---------------------|--------------------|--------------------------|
| Dennis P. Lynch | Managing Director | June 2004 |
| Sam G. Chainani | Managing Director | June 2004 |
| Jason C. Yeung | Managing Director | September 2007 |
| Armistead B. Nash | Managing Director | September 2008 |
| David S. Cohen | Managing Director | June 2004 |
| Alexander T. Norton | Executive Director | July 2005 |
| | | |

Purchase and Sale of Fund Shares

The Prospectus offers Class II shares of the Fund. The Company also offers Class I shares of the Fund through a separate prospectus. Class I shares are subject to lower expenses, but may not be available through your insurance company, qualified pension plan or retirement plan. For eligibility information, contact your insurance company or qualified pension or retirement plan.

The Fund offers its shares only to insurance companies (either directly or indirectly through other variable insurance funds) for separate accounts that they establish to fund variable life insurance and variable annuity contracts, and to other entities under qualified pension and retirement plans. An insurance company purchases or redeems shares of the Fund based on, among other

things, the amount of net contract premiums or purchase payments allocated to a separate account investment division, transfers to or from a separate account investment division, contract loans and repayments, contract withdrawals and surrenders, and benefit payments. The contract prospectus describes how contract owners may allocate, transfer and withdraw amounts to, and from, separate accounts.

For more information, please refer to the section of the Prospectus entitled "Shareholder Information—Purchasing and Selling Fund Shares."

Tax Information

Special tax rules apply to life insurance companies, variable annuity contracts and variable life insurance contracts. For information on federal income taxation of a life insurance company with respect to its receipt of distributions from the Fund and federal income taxation of owners of variable annuity or variable life insurance contracts, refer to the contract prospectus.

For more information, please refer to the section of the Prospectus entitled "Shareholder Information-Taxes."

Payments to Insurance Companies and Other Financial Intermediaries

The Adviser and/or the Fund's "Distributor," Morgan Stanley Distribution, Inc., may pay insurance companies or their affiliates in connection with Fund-related administrative services that the insurance companies provide in connection with the issuance of their variable annuity contracts. These payments, which may be significant in amount, may create a conflict of interest by influencing the insurance company to recommend one variable annuity or variable life insurance contract over another or be a factor in an insurance company's decision to include the Fund as an underlying investment option in its variable annuity or variable life insurance contracts. Ask your salesperson or visit your insurance company's web site for more information.

(THIS PAGE INTENTIONALLY LEFT BLANK)

(THIS PAGE INTENTIONALLY LEFT BLANK)

(THIS PAGE INTENTIONALLY LEFT BLANK)