

Ivy VIP Science and Technology, Class II

Benchmark

S&P North American Technology TR

Overall Morningstar Rating™

★★★

Out of 194 Technology funds. An investment's overall Morningstar Rating, based on its risk-adjusted return, is a weighted average of its applicable 3-, 5-, and 10-year Ratings. See disclosure for details.

Morningstar Return

Below Average

Morningstar Risk

Average

Investment Strategy

The investment seeks to provide growth of capital.

The fund invests primarily in the equity securities of science and technology companies around the globe. Under normal circumstances, it invests at least 80% of its net assets in securities of science or technology companies. Science and technology companies are companies whose products, processes or services, in the opinion of IICO, are being, or are expected to be, significantly benefited by the use or commercial application of scientific or technological developments or discoveries. The fund is non-diversified.

Morningstar Category: Technology

Technology portfolios buy high-tech businesses in the U.S. or outside of the U.S. Most concentrate on computer, semiconductor, software, networking, and Internet stocks. A few also buy medical-device and biotechnology stocks, and some concentrate on a single technology industry.

Volatility Analysis



In the past, this investment has shown a wide range of price fluctuations relative to other investments. This investment may experience significant price increases in favorable markets or undergo large price declines in adverse markets. Some of this risk may be offset by owning other investments that follow different investment strategies.

Principal Risks

Emerging Markets, Foreign Securities, Loss of Money, Not FDIC Insured, Growth Investing, Nondiversification, Issuer, Market/Market Volatility, Industry and Sector Investing, Restricted/Illiquid Securities, Management, Portfolio Diversification, Small Cap, Mid-Cap, Large Cap, Technology Sector

Please refer to the Principal Risk definitions on the following pages for more information.

Operations

Underlying Incep. Date 04-04-97
 Advisor Ivy Investment Management Co
 SubAdvisor —

Portfolio Manager(s)

Zachary Shafran. Since 02-01.
 Bradley Warden. Since 10-16.

Morningstar Proprietary Statistics

	YTD	1 Year	3 Year	5 Year	10 Year
Morningstar Rating™	—	—	★★★	★★	★★★
Fund Rank Percentile	17	24	58	88	69
Out of # of Investments	235	230	194	178	153

Portfolio Analysis

Composition as of 06-30-19	% Assets	Statistics as of 06-30-19	Port Avg	Rel Bmark	Rel Cat
U.S. Stocks	86.1	P/E Ratio	25.89	1.01	1.04
Non-U.S. Stocks	9.2	P/B Ratio	5.52	0.85	1.10
Bonds	0.8	P/C Ratio	16.80	1.01	1.06
Cash	3.9	GeoAvgCap (\$mil)	44,374.29	0.40	0.62
Other	0.0				

Morningstar Equity Style Box™ as of 06-30-19

	% Mkt Cap
Giant	37.99
Large	18.42
Medium	33.76
Small	9.46
Micro	0.38

Top 10 Holdings as of 06-30-19

	% Assets
Microsoft Corp	10.10
Euronet Worldwide Inc	6.34
Aspen Technology Inc	5.38
WNS (Holdings) Ltd ADR	5.12
Universal Display Corp	5.04
Vertex Pharmaceuticals Inc	4.79
Apple Inc	4.69
ACI Worldwide Inc	4.47
Alibaba Group Holding Ltd ADR	3.87
Cerner Corp	3.76

Total Number of Stock Holdings	40
Total Number of Bond Holdings	3
Annual Turnover Ratio %	17.00
Total Fund Assets (\$mil)	527.61

Total Fund Assets is the net aggregated market value of all of the securities in all share classes of the portfolio.

Fees and Expenses

Prospectus Net Expense Ratio	1.16%
Prospectus Gross Expense Ratio	1.16%
12b-1 Fee	0.25%

Waiver Data	Type	Exp. Date	%
—	—	—	—

The issuing insurance company may receive a portion of the current expense ratio from the Fund adviser for Administrative Services. Refer to your prospectus for a complete list of additional policy and rider fees and expenses.

Risk Measures as of 09-30-19	Port Avg	Rel Bmark	Rel Cat
3 Yr Std Dev	16.86	1.05	1.04
3 Yr Beta	0.97	—	0.99
3 Yr Sharpe Ratio	0.97	0.80	1.03
3 Yr Alpha	-2.81	—	0.69
3 Yr R-squared	86.08	—	0.90

Morningstar Equity Sectors as of 06-30-19

	% Fund
Cyclical	10.58
Basic Materials	0.32
Consumer Cyclical	8.87
Financial Services	0.00
Real Estate	1.39
Sensitive	78.15
Communication Services	0.00
Energy	0.00
Industrials	13.12
Technology	65.03
Defensive	11.27
Consumer Defensive	0.00
Healthcare	11.27
Utilities	0.00

Fund holdings and sectors change daily, may differ from those shown and should not be considered a recommendation to buy or sell securities.

Notes

Neither Ivy Variable Insurance Portfolios nor Morningstar, Inc. is an affiliate of the issuing insurance company.

NOT A DEPOSIT. NOT GUARANTEED. MAY LOSE VALUE.

Disclosure

Benchmark: S&P North American Technology TR

The index measures the performance of US traded securities classified under the Global Industry Classification Standard (GICS) technology (sector) and internet retail (sub-industry).

Morningstar Rating™

The Morningstar Rating™ for funds, or "star rating", is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange-traded funds, closed-end funds, and separate accounts) with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. The weights are: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods.

Morningstar Return

The Morningstar Return rates a fund's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Avg), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

Morningstar Risk

Morningstar Risk evaluates a fund's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the

product. Products with less than three years of performance history are not rated.

Morningstar Category

Morningstar assigns categories to separate accounts portfolios. Portfolios are placed in a given category based on their average holdings statistics over the past three years. Morningstar's editorial team also reviews and approves all category assignments. If the portfolio is new and has no history, Morningstar estimates where it will fall before giving it a more permanent category assignment. When necessary, Morningstar may change a category assignment based on recent changes to the portfolio. In the United States, Morningstar supports 110 categories.

Principal Risk Definitions:

Emerging Markets

Investments in emerging- and frontier-markets securities may be subject to greater market, credit, currency, liquidity, legal, political, and other risks compared with assets invested in developed foreign countries.

Foreign Securities

Investments in foreign securities may be subject to increased volatility as the value of these securities can change more rapidly and extremely than can the value of U.S. securities. Foreign securities are subject to increased issuer risk because foreign issuers may not experience the same degree of regulation as U.S. issuers do and are held to different reporting, accounting, and auditing standards. In addition, foreign securities are subject to increased costs because there are generally higher commission rates on transactions, transfer taxes, higher custodial costs, and the potential for foreign tax charges on dividend and interest payments. Many foreign markets are relatively small, and securities issued in less-developed countries face the risks of nationalization, expropriation or confiscatory taxation, and adverse changes in investment or exchange control regulations, including suspension of the ability to transfer currency from a country. Economic, political, social, or diplomatic developments can also negatively impact performance.

Loss of Money

Because the investment's market value may fluctuate up and down, an investor may lose money, including part of the principal, when he or she buys or sells the investment.

Not FDIC Insured

The investment is not a deposit or obligation of, or guaranteed or endorsed by, any bank and is not insured by the Federal Deposit Insurance Corporation, the Federal Reserve Board, or any other U.S. governmental agency.

Growth Investing

Growth securities may be subject to increased volatility as the value of these securities is highly sensitive to market fluctuations and future earnings expectations. These securities typically trade at higher multiples of current earnings than do other securities and may lose value if it appears their earnings expectations may not be met.

Nondiversification

A nondiversified investment, as defined under the Investment Act of 1940, may have an increased potential for loss because its portfolio includes a relatively small number of investments. Movements in the prices of the individual assets may have a magnified effect on a nondiversified portfolio. Any sale of the investment's large positions could adversely affect stock prices if those positions represent a significant part of a company's outstanding stock.

Issuer

A stake in any individual security is subject to the risk that the issuer of that security performs poorly, resulting in a decline in the security's value. Issuer-related declines may be caused by poor management decisions, competitive pressures, technological breakthroughs, reliance on suppliers, labor problems or shortages, corporate restructurings, fraudulent disclosures, or other factors. Additionally, certain issuers may be more sensitive to adverse issuer, political, regulatory, market, or economic developments.

Market/Market Volatility

The market value of the portfolio's securities may fall rapidly or unpredictably because of changing economic, political, or market conditions, which may reduce the value of the portfolio.

Industry and Sector Investing

Concentrating assets in a particular industry, sector of the economy, or markets may increase volatility because the investment will be more susceptible to the impact of market, economic, regulatory, and other factors affecting that industry or sector compared with a more broadly diversified asset allocation.

Restricted/Illiquid Securities

Restricted and illiquid securities may fall in price because of an inability to sell the securities when desired. Investing in restricted securities may subject the portfolio to higher costs and liquidity risk.

Management

Performance is subject to the risk that the advisor's asset allocation and investment strategies do not perform as expected, which may cause the portfolio to underperform its benchmark, other investments with similar objectives, or the market in general. The investment is subject to the risk of loss of income and capital invested, and the advisor does not guarantee its value, performance, or any particular rate of return.

Portfolio Diversification

Investments that concentrate their assets in a relatively small number of issuers, or in the securities of issuers in a particular market, industry, sector, country, or asset class, may be subject to greater risk of loss than is a more widely diversified investment.

Small Cap

Concentrating assets in small-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Smaller, less-seasoned companies may be subject to

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increased liquidity risk compared with mid- and large-cap companies and may experience greater price volatility than do those securities because of limited product lines, management experience, market share, or financial resources, among other factors.

Mid-Cap

Concentrating assets in mid-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Mid-cap companies may be subject to increased liquidity risk compared with large-cap companies and may experience greater price volatility than do those securities because of more-limited product lines or financial resources, among other factors.

Large Cap

Concentrating assets in large-capitalization stocks may subject the portfolio to the risk that those stocks underperform other capitalizations or the market as a whole. Large-cap companies may be unable to respond as quickly as small- and mid-cap companies can to new competitive pressures and may lack the growth potential of those securities. Historically, large-cap companies do not recover as quickly as smaller companies do from market declines.

Technology Sector

Concentrating assets in the technology sector may disproportionately subject the portfolio to the risks of that industry, including loss of value because of intense competitive pressures, short product cycles, dependence on intellectual property rights, legislative or regulatory changes, and other factors.

Investment Risk:

Foreign Securities Funds/Emerging Markets Funds: The investor should note that funds that invest in foreign securities involve special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

Sector Funds: The investor should note that funds that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks.

Non-Diversified Funds: The investor should note that funds that invest more of their assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

Small Cap Funds: The investor should note that funds that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure, and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

Mid Cap Funds: The investor should note that funds that invest in companies with market capitalizations below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

High-Yield Bond Funds: The investor should note that funds that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower

credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

Tax-Free Municipal Bond Funds: The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

Morningstar Style Box™

The Morningstar Style Box™ reveals a fund's investment style as of the date noted on this report.

For equity funds the vertical axis shows the market capitalization of the long stocks owned and the horizontal axis shows investment style (value, blend, or growth).

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration. Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations (NRSROs). For a list of all NRSROs, please visit <http://www.sec.gov/divisions/marketreg/ratingagency.htm>.

Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating, and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO or rating agency ratings can change from time-to-time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of

MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive.

For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than or equal to 6 years; (iii) Extensive: greater than 6 years.

Prospectus Net Expense Ratio

The percentage of fund assets, net of reimbursements, used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

Prospectus Gross Expense Ratio

The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred by the fund, except brokerage costs. Fund expenses are reflected in the fund's NAV. Sales charges are not included in the expense ratio.

12b-1 Fee

The maximum annual charge deducted from fund assets to pay for distribution and marketing costs. Although usually set on a percentage basis, this amount will occasionally be a flat figure. Only active 12b-1 plans are represented here. This information is taken directly from the fund's prospectus. (Morningstar lists the maximum amount.)

Portfolio Statistic Definitions

P/E Ratio Price/Earnings (P/E) Ratio is a stock's current price divided by the company's trailing 12-month earnings per share.

P/B Ratio Price/Book (P/B) Ratio is the weighted average of the price/book ratios of all the stocks in a portfolio.

P/C Ratio Price/Cash (P/C) Ratio represents the weighted average of the price/cash-flow ratios of the stocks in a portfolio.

GeoAvgCap Geometric Average Cap is the geometric mean of the market capitalization for all of the stocks the portfolio owned.

Risk Measures

Standard deviation is a statistical measure of the volatility of the fund's returns.

Beta is a measure of a fund's sensitivity to market movements. A portfolio with a beta greater than 1 is more volatile than the market, and a portfolio with a beta less than 1 is less volatile than the market.

Sharpe ratio uses standard deviation and excess return to determine reward per unit of risk.

Alpha measures the difference between a fund's actual

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returns and its expected performance, given its level of risk (as measured by beta).

R-squared reflects the percentage of a fund's movements that are explained by movements in its benchmark index, showing the degree of correlation between the fund and the benchmark.

Ameritas Life Insurance Corp. ("Ameritas Life") currently issues variable products in approved states (Forms #6150 and 6200, variable annuities, and Forms #4003 and 4051, variable life insurance). This investment option may also be available to policy owners of previously issued variable products no longer offered for sale, including those previously issued by The Union Central Life Insurance Company (merged with and into Ameritas Life Insurance Corp. in 2014) and Ameritas Life Insurance Corp. of New York. Variable products underwritten by affiliate Ameritas Investment Corp.

This portfolio update must be preceded or accompanied by variable product prospectuses from the issuing company. The prospectuses include more details, such as investment objectives, risks, limitations, charges and expenses. Read them carefully before you direct your investment. Variable products are subject to investment risk, including the possible loss of principal.

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