

DiversiTerra

December 31, 2023

Green Alpha[®]

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Investment Philosophy

Today's economy derives its most significant growth from innovative, high-performing businesses that actively develop and expedite solutions addressing critical systemic issues such as the climate crisis, resource degradation, inequality, and diseases. These companies represent the most promising investment opportunities for both safeguarding and increasing our clients' capital.

Green Alpha adheres to a straightforward philosophy: we actively seek out companies pioneering swiftly scalable and rapidly adaptable, economically competitive solutions.

Our investments seek to de-risk the global economy (which in turn reduces clients' long-term investment risks) by focusing on sectors and industries growing faster than underlying GDP.



Why Invest in DiversiTerra?

- Active research, stock selection, and portfolio mgmt
- Invests in a curated selection of the most diverse and promising companies in our Next Economy™ universe
- 45-65 global, market-leading, solutions-oriented companies led by diverse executive teams and boards

Inception: March 31, 2018

Vehicle: Separately Managed Accounts

Research

We aim to identify companies meeting the following criteria:

- They offer products and/or services that mitigate the risk profile of the global economy by providing solutions to pressing economic and environmental challenges.
- Companies allocating a significant portion of revenue to R&D, CapEx, and possessing more IP than their peers.
- Those led by shareholder-aligned, effective, and diverse executive teams and BODs with a record of increasing revenues and expanding profit margins, which in turn drives earnings growth.
- Companies with prudent capital allocation priorities and strong balance sheets.
- Those with shares trading at attractive valuations relative to proven and anticipated growth prospects.

Portfolio Construction

DiversiTerra invests in companies led by diverse executive teams and boards, as numerous critical metrics indicate that diverse groups outperform homogeneous ones. DiversiTerra represents a carefully curated subset of Green Alpha's Social Index and is an actively managed gender-lens portfolio.

Our approach underscores the fact that diverse teams tend to be more effective, while also acknowledging that women are disproportionately affected by the climate crisis, resource degradation, and inequality. Consequently, investments in solutions to those crises can have a strong positive impact on women, making them major beneficiaries of shifts to sustainability.

Largest Positions

How DiversiTerra is driving progress toward the Next Economy

Vestas Wind Systems *(Sector: Energy, Industry: Renewable Energy)*

- Vestas is a global leader in wind energy, designing, manufacturing, installing, and servicing onshore and offshore turbines.
- With over 173 gigawatts of installed wind turbine capacity globally, Vestas powers millions of homes and contributes significantly to renewable energy production. They hold the record for both the highest number of installed wind turbines (55,000+) and the most powerful onshore wind turbine in operation (the V236-15.0MW).
- Vestas continues to grow its large order backlog, now over \$25 billion, and its service order backlog now over \$38 billion. The sizeable combined order backlog of \$63.72 billion translates to projected increased revenue for Vestas in the coming years.
- Vestas goes beyond just producing turbines. They offer a comprehensive range of services, including project development, construction, operation and maintenance, and asset optimization. Their global network of service technicians ensures consistent performance and maximizes the lifespan of wind farms. The average service contract duration is 10 years, providing a long runway of revenue transparency. They also provide data-driven insights and analytics to help customers optimize their energy production and make informed decisions.
- Vestas' board is 45% female and women serve on all committees.

IBM *(Sector: Technology, Industry: Software & Tech Services)*

- IBM is a leading driver of innovations mitigating global risks. Having divested from its legacy managed-infrastructure business, IBM has re-emerged as a Next Economy™ powerhouse. Areas of focus include:
 - Hybrid Cloud Infrastructure: IBM provides robust cloud computing solutions, competing with giants like Amazon Web Services and Microsoft Azure. Their offerings include hardware, software, and services to help businesses manage their data and applications across hybrid cloud environments.
 - AI and Machine Learning: IBM is a leader in the field of artificial intelligence, offering tools and platforms like Watson for various applications, including data analysis, customer service, and healthcare.
 - Security and Blockchain: IBM emphasizes data security and privacy, offering comprehensive security solutions and exploring the potential of blockchain technology for enhanced trust and traceability.
 - IBM Quantum: One of the world's first and largest publicly accessible quantum computing platforms, offering access to over 20 quantum processors via its cloud platform, IBM Quantum Cloud.
 - Qiskit: An open-source quantum software development kit, empowering developers and researchers worldwide to build and run quantum algorithms and applications.
 - Focus on Scalability: Actively developing and testing new quantum processor architectures, like the Quantum System Two, which aims to achieve millions of qubits in the future.
- IBM believes these “can exponentially alter the speed and scale at which we can uncover solutions to complex problems. We’ve come to call this accelerated discovery.”
- Senior leadership is 23% female, including the Senior Vice President, Transformation and Operations, Chief Human Resources Officer, Senior Vice President, Legal and Regulatory Affairs, and General Counsel, and Senior Vice President and Chief Operating Officer, IBM Consulting. IBM is a longstanding leader on pay equity for both women and minority populations. The board of directors is 21% female.

Brookfield Renewable, Lam Research, and CRISPR Therapeutics' Next Economy attributes are on the following page.

Company Name	Ticker	Weight
Vestas Wind Systems	VWDRY	4.61%
IBM	IBM	4.28%
Brookfield Renewable	BEPC	3.92%
Lam Research	LRCX	3.57%
CRISPR Therapeutics	CRSP	3.46%
Hudson Pacific Properties	HPP	3.09%
Palo Alto Networks	PANW	2.68%
Moderna	MRNA	2.55%
Trex Company	TREX	2.50%
Sprouts Farmers Market	SFM	2.49%
% of Portfolio		33.15%

Largest Positions *continued*

Brookfield Renewable (Sector: Utilities, Industry: Electric Utilities)

- Brookfield is a global leader in renewable power, with a diverse portfolio of hydroelectric, wind, solar, distributed energy, and storage facilities across five continents. They are one of the world's largest investors in renewable power and climate transition assets, with over 32,000 MW of generating capacity, and 143,400 in pipeline capacity.
- Brookfield acquired Duke Energy Renewables' commercial renewables business for \$2.8 billion, which was completed in 2023. This acquisition solidified Brookfield's position as one of the largest renewable energy businesses in the U.S., with almost 90,000 MW of combined operating and pipeline capacity across all major U.S. power grids. The transaction included more than 3,400 wind and battery storage projects across the U.S.
- Brookfield is conservatively managed, continually looking for acquisitions at favorable prices to grow generation capacity, and has revenues largely backed by long-term power purchase agreements (PPAs), and the company boasts a decade-long track record “of 10%+ FFO per unit annual growth.”
- Women comprise 30% of the board, 25% of the workforce, and 29% of the exec team, all of whom are either Managing Directors or Managing Partners. The exec team has a robust age spread of 48 years, as does the board at 30 years.

Lam Research (Sector: Technology, Industry: Semiconductors)

- Lam Research is a global leader specializing in design, manufacture, and service equipment used in wafer fabrication.
- Wafer Fabrication Equipment: Lam develops and produces essential equipment used in various stages of semiconductor chip manufacturing, including thin film deposition, plasma etch, wet processing, and wafer cleaning.
- Technology Focus: They continuously innovate and refine technologies to enhance performance, precision, and efficiency in chip production. This includes exploring advancements like atomic layer deposition and high-aspect-ratio etching for ever-smaller and more complex chip designs. Lam's technology plays a crucial role in making smaller, faster, and more powerful chips, impacting various fields like artificial intelligence, mobile technology, and healthcare.
- Customer Base: Lam serves leading semiconductor foundries, memory manufacturers, and integrated device manufacturers worldwide, supplying critical equipment for their production lines. Lam is known for its innovation and technological leadership, with a focus on R&D to advance semiconductor manufacturing processes.
- Investment in R&D: They devote significant resources to R&D, pushing the boundaries of technology and continually improving their capabilities. The company has a strong IP property portfolio with 17,000+ patents granted or pending.
- Female members of Lam's executive leadership team include the SVP of Corporate Strategy, Chief Legal Officer, Chief HR Officer, and Chief Communications Officer.

Crispr Therapeutics (Sector: Health Care, Industry: Biotech & Pharma)

- CRISPR Therapeutics' core focus areas:
 - CRISPR/Cas9 Gene Editing: They utilize the revolutionary CRISPR/Cas9 technology, which allows for precise editing of DNA, opening doors for treating genetic diseases and modifying cell functions for therapeutics.
 - Ex Vivo Therapies: They primarily utilize ex vivo therapies, where cells are extracted from a patient, edited outside the body, and then reintroduced, providing a personalized and potentially curative approach.
 - Diverse Pipeline: They are developing a broad range of therapies, including hemoglobinopathies like sickle cell disease and beta-thalassemia, oncology for various cancers, regenerative medicine, and rare diseases.
- Key Achievements and Milestones:
 - Exa-cel (CTX001): Their leading therapy for sickle cell disease and transfusion-dependent beta-thalassemia has conditional marketing authorization in some countries and continues to show promising results in clinical trials.
 - Partnerships : They actively collaborate with leading pharmaceutical companies and research institutions, including Vertex Pharmaceuticals, the University of California Berkeley, and Editas Medicine.
 - Investment in R&D: They continually invest in research and development, exploring new applications of CRISPR/Cas9 technology and expanding their pipeline of potential therapies.
- Women in executive leadership include the Chief Medical Officer, Head of Programs and Portfolio Management, and the Chief HR Office, and the leadership team has an above-average age spread of 31 years. The board is 22% female.

Please see the final page of this document for important disclosures about portfolio, benchmark, and characteristic information.

Macroeconomic Commentary

Our complete [2023, 2024, and the Road Ahead](#) review is available [here](#); the summary provided below aims to spark your curiosity to explore the comprehensive content and associated source materials.



In 2023, the dichotomy of our future became starker: a potential utopia or a daunting dystopia. Our path hinges on collective decisions, particularly in financial investments. Money, as a potent agent of change, directs economic growth. Where we choose to invest can either propel innovations that solve critical problems, fostering economic expansion and societal progress, or lead us toward detrimental outcomes. The key lies in aligning our financial resources with sustainable and innovative ventures that promise a brighter, richer, and more abundant, more equitable future. What were 2023's key milestones of hope and despair?

First: Despair. Key negative events in 2023 that affected and continue to pose economic and market risks

- **Climate Crisis:** Increased severity of climate events; high investment in fossil fuels both prolonging and causing further environmental damage; subsequent economic risks like insurance companies withdrawing from high-risk areas
- **Geopolitical Conflicts:** Escalation of global conflicts affecting economies and markets; significant wars include Israel-Hamas and Russia-Ukraine
- **American Political Landscape:** Potential impact of the 2024 U.S. Presidential election on environmental policies and global climate action
- **China's Economic Challenges:** China is facing a decline in foreign investments and economic growth due to high debt-to-GDP ratio, affecting global economic dynamics, but also incentivizing China to stabilize relations with the U.S.

What IS Working?

- **Renewable Energy Growth:** Significant increase in renewable energy adoption and electric vehicle (EV) use; advancements in solar technology and reduction in costs
- **Biotechnological Advances:** Gene editing, particularly CRISPR-Cas9, is showing potentially unlimited promise in medicine and agriculture
- **AI Integration:** AI's growing role in the economy and its impact on productivity and solving major issues
- **Market Conditions:** Improving environment for innovation-driven companies; shifts in investment patterns and potential for growth in sustainable technology sectors; some growth stocks appear undervalued

2024 Financial Outlook: Continued expensive money, geopolitical economic reshaping, and rapid technological advancement impacting investment and growth strategies

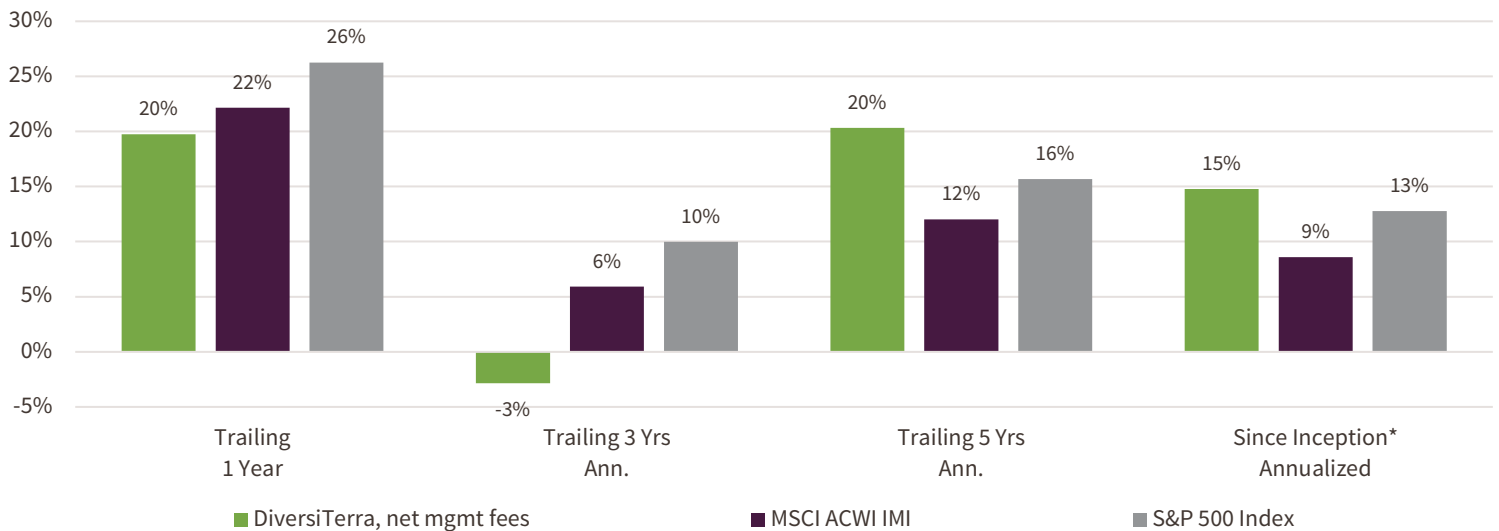
- The climate crisis is worsening—higher temperatures and more extreme weather are likely
- China taking a more collaborative stance with the West as its economy struggles

Key Unknowns

- Whether geopolitical conflicts spread or cool down
- If \$6 trillion in money market funds flows to stocks and other risk assets, that could fuel appreciation in share prices of growth companies

In the context of escalating global challenges, technological innovation emerges as a pivotal force for stability and economic progression. For fiduciaries, it's prudent to direct investment portfolios towards companies demonstrating resilience and innovation in sustainable production functions that can support long-term global growth. These firms are not only transforming their industries, but also show a robust capacity to flourish amid complex global dynamics. A strategic emphasis on such sustainability-focused enterprises highlights the critical role of technology in driving meaningful global change, lowering economic and portfolio risks, and aligning financial returns with positive impact.

Portfolio Performance & Commentary



For the full year 2023, Green Alpha's DiversiTerra portfolio returned 19.75% net of management fees, versus its benchmark, the MSCI All Country World Investable Market Index (MSCI ACWI IMI), which returned 22.15%.

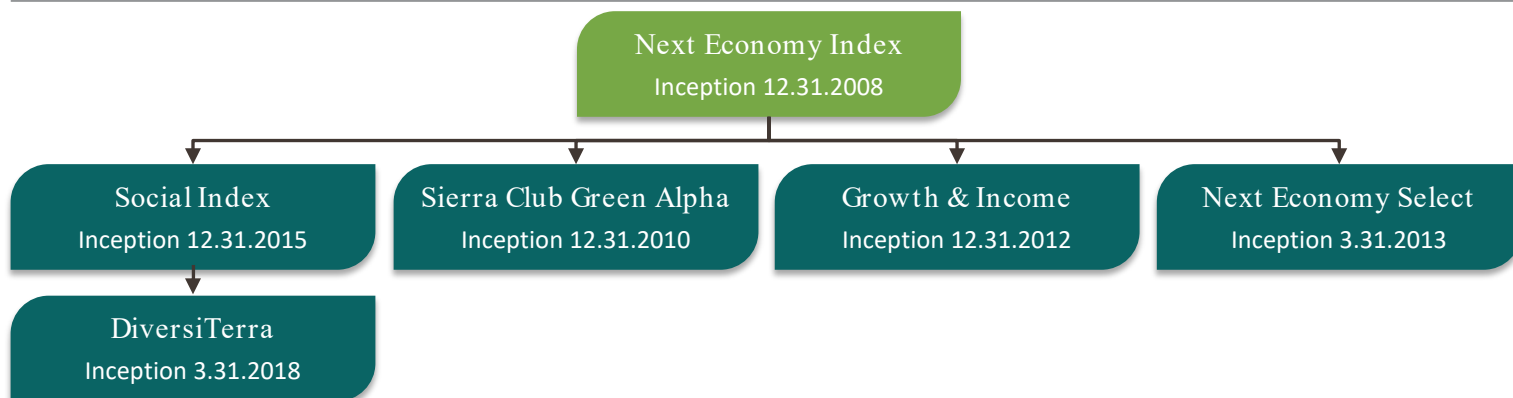
The only sector detracting from the strategy's returns was Energy. Industrials was the lowest performing sector.

- Within Energy, solar was the most significant detractor due to industry headwinds and Green Alpha's significant weighting. Losses in solar were from multiple verticals, including panel and module makers and installers, power inverter makers, and energy storage. Solar headwinds included the exponential rise in interest rates making solar projects at both the utility and homeowner scales appear less financially attractive, temporary supply chain challenges, and a narrative-driven lowering of market appetite for growth-oriented equities. Despite these dynamics, Green Alpha continues to maintain its significant weighting to solar as it remains one of the world's fastest growing industries, is enjoying cost reductions leading to expanding margins, and continues to advance and the cheapest source of new electricity generation available in most of the world. Losses within solar were partially offset by gains from thin film solar panel manufacturing, utility solar tracking technology, and finally, from gains in wind energy (*which is notable, because the wind energy industry faced similar headwinds as solar in 2023*).
- The Industrials sector was a net contributor to performance in 2023 with the second-lowest performance in the portfolio. The exposures that detracted from the sector were lithium recycling and carbon capture and use technology, which are both classified as industrial services. The companies that contributed to returns within Industrials were led by a multinational electrical equipment and infrastructure provider leading the energy transition to electrifying the economy, followed by a leading global smart meter manufacturer.

The strategy's top performing sectors were Technology and Consumer Staples.

- Technology was the sector contributing the most to returns, with chip designers leading, followed by manufacturers and upstream equipment providers. Thematically, interest in AI tended to favor the designers, although the essential practical work of foundries in making the actual chips was also recognized by markets. Following semiconductors, our exposure to security, application, cloud, engineering, automation, and design software companies were the next most significant areas of contribution. Technology hardware companies also contributed, with the majority of returns in that segment coming from communications, networking, and digital storage hardware firms. As a reminder, Green Alpha believes that technology presents a uniquely powerful solution set for addressing the world's top systemic risks, and in fact, tech addresses each of our [four pillars of the Next Economy](#).
- The Consumer Staples sector was the next most significant contributor to returns. Leading areas within the sector were personal care products, food retailers, and food production. The leading contributors were natural and organic food retailers and producers, as these firms consistently reported expectations-beating results during the year. Although generally, staples tend to hold up well even in higher interest rate environments, our selected set of better for you and better for the planet providers continued to gain market share and therefore outperformed the sector by a meaningful margin.

**Portfolio Inception: March 31, 2018. All returns presented above that are greater than 1 year in length have been annualized. Performance data quoted represents past performance. Past performance does not guarantee future results and current performance may be lower or higher than the data quoted. Please see the final page of this document for additional important disclosures.*



- **Gender-lens criteria:** diverse teams demonstrably outperform homogenous teams—namely increased innovation levels, reduced governance controversies, greater customer orientation, and lower employee turnover
- **Fundamentals-driven:** the underlying quality of companies and the price paid for their shares are key drivers of LT returns
 - ✓ **High growth:** indicated by Sales Growth, and a decrease from Current P/E to Forward P/E as revenue and earnings grow
 - ✓ **Compelling valuation:** demonstrated by Price/Sales and Price/Book metrics relative to growth expectations
 - ✓ **Strong balance sheet and management execution:** conveyed by capital stewardship, LT Debt/Equity, Current Ratio
- **Diversified – we seek solutions wherever we can find them:** across the globe, in companies of all sizes, and every industry
- **Public equities, long-only:** most investors' largest asset class, so their largest opportunity for impact
- **Fossil fuel free since inception:** we never invest in companies that prospect, extract, refine, or transport fossil fuels, nor in fossil-fired utilities or internal combustion engine manufacturers

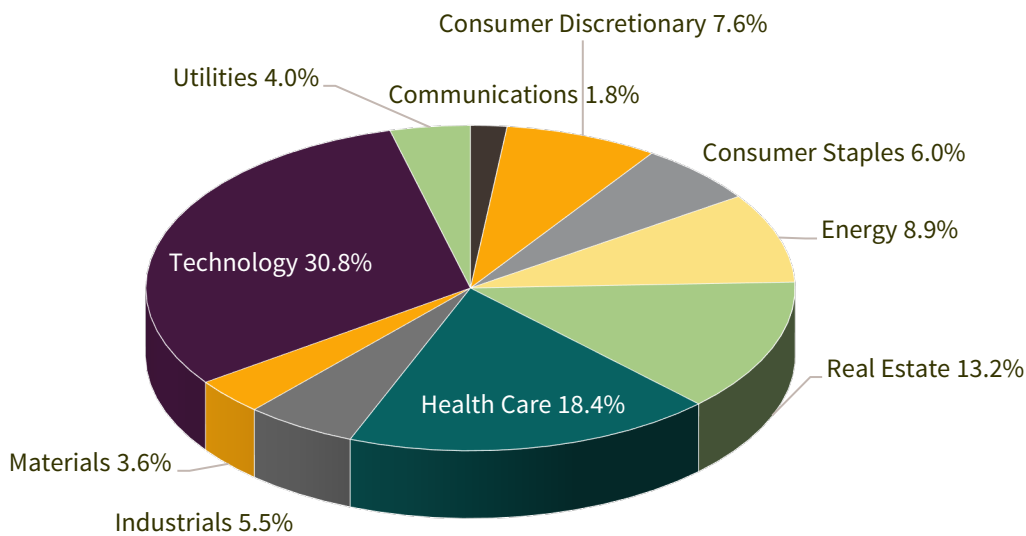
Characteristics	DiversiTerra	Benchmark: MSCI ACWI IMI (SPGM)	Next Economy Index	Social Index	Next Economy Select	Growth & Income	Sierra Club Green Alpha
# of Securities	58	2,639	150	114	66	36	46
Active Share vs MSCI ACWI IMI	95%	-	92%	94%	96%	97%	96%
Active Share vs Next Economy Index	61%	-	-	29%	63%	71%	68%
Sales Growth, Trailing 3-Yr	59%	15%	47%	63%	35%	23%	39%
P/E, Current	21.0	18.0	21.4	25.0	16.2	15.2	14.1
P/E, 1-Year Forward	25.4	17.1	23.9	27.1	18.6	15.2	16.0
Price/Sales	2.1	1.8	2.2	2.3	1.6	1.3	0.9
Price/Book	2.4	2.6	2.8	2.7	2.2	1.7	1.9
LT Debt/Equity	56%	156%	58%	58%	47%	62%	60%
Current Ratio	4.2	2.3	3.9	3.8	4.5	3.4	3.5
Dividend Yield	1.54%	2.11%	1.17%	1.02%	1.90%	3.93%	1.97%
Market Cap, Wtd Avg (\$B)	\$116.58	\$431.37	\$94.81	\$82.46	\$126.13	\$75.28	\$124.36
Market Cap, Median (\$B)	\$5.64	\$2.55	\$8.26	\$9.69	\$5.14	\$28.37	\$7.41
Turnover, Trailing 2-Yr Avg	28%	Not Available	25%	39%	12%	16%	10%
Beta, Trailing 3-Yrs	1.32	1.00	1.31	1.39	1.36	1.27	1.31
U.S.-Domiciled Companies	81%	59%	78%	87%	68%	68%	72%
% Revenue Derived in U.S.	55%	44%	49%	57%	46%	46%	46%

Characteristics are sourced from FactSet, based on a representative account and include cash. Please see additional disclosures on last page.

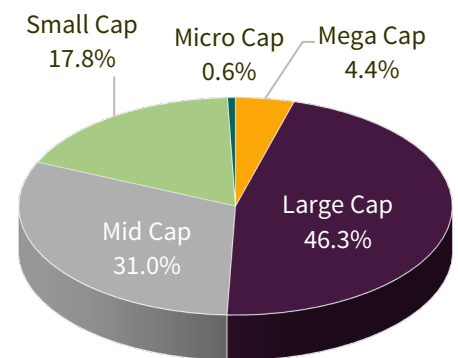
Portfolio Allocations

Our search for Next Economy companies is unconstrained. For the DiversiTerra portfolio, we seek solutions to systemic risks wherever they exist – across sectors, market caps, and geographies.

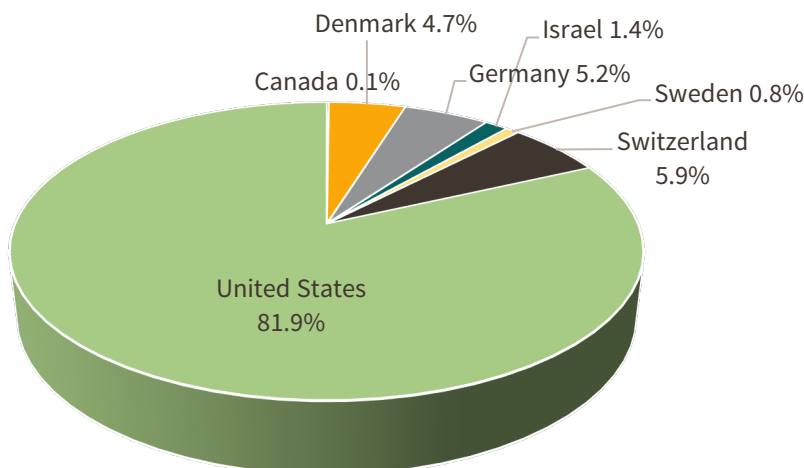
Sectors



Market Capitalizations



Companies' Main Headquarters



Allocation data is sourced from FactSet and is based on a representative account. The exception is the sector chart, which utilizes the Bloomberg Industry Classification Standard from Bloomberg, and is based on a model portfolio. All charts on this page are shown as percent of equity. Please see the final page of this document for additional important disclosures.

Important Disclosures

- Green Alpha Advisors, LLC is a registered investment advisor. Registration as an investment advisor does not imply any certain level of skill or training.
- Green Alpha Investments is a trade name of Green Alpha Advisors, LLC. Green Alpha is a registered trademark of Green Alpha Advisors, LLC. Green Alpha Advisors also owns the trademarks to “Next Economy,” “Next Economics,” “Next Economy Portfolio Theory,” “Investing in the Next Economy,” and “Investing for the Next Economy.”
- Performance quoted throughout this document represent past performance. Past performance does not guarantee future results, and current performance may be lower or higher than the data quoted. Investment returns and principal will fluctuate with market and economic conditions, and investors may have a gain or loss when shares are sold.
- Beginning June 30, 2022, the DiversiTerra performance results are a composite of discretionary client accounts invested in the DiversiTerra strategy on specific custodial platforms. Green Alpha’s discretionary client accounts that are not included in the composite are those custodied at Folio Institutional due to operational limitations of Folio’s data feeds to Green Alpha’s portfolio accounting system Advent APX. Beginning May 31, 2023, composite membership also includes a minimum account size of \$25,000. The DiversiTerra composite performance results reflect actual performance for a composite of discretionary client accounts meeting custodian and minimum account size requirements. Net-of-fee returns reflect the deduction of actual management fees and transaction costs. Some assets managed in the DiversiTerra strategy within the composite receive a reduced fee from the standard management fee schedule. Actual client returns experienced will vary from the returns presented based on a variety of factors, and we encourage you to ask about specific factors. Accounts are included in the composite for full-month periods under management with Green Alpha Investments. DiversiTerra composite performance results do not reflect the reinvestment of dividends and interest.
- Prior to June 30, 2022, the performance results represent a single account managed to the strategy. The performance results shown are not materially higher than if all related accounts were included prior to July 2022. Please contact Green Alpha for information about the representative account selection process.
- Actual advisory fees may vary among clients with the same investment strategy. Green Alpha’s standard fee schedules are available within Form ADV Part 2. For those details and additional legal information, please see information and files here: <http://greenalphaadvisors.com/about-us/legal-disclaimers/>.
- The DiversiTerra strategy contains equity stocks that are managed with a view towards capital appreciation. Extreme periods of underperformance or outperformance are due to the concentrated nature of the strategy and the impact of specific security selection. Such results may not be repeatable.
- Green Alpha portfolios may invest in companies with small and medium market capitalizations, which may have more limited product lines, markets, and financial resources than larger companies. In addition, their securities may trade less frequently and in more limited volume than those of larger companies. Small or mid-cap stocks may be more volatile than those of larger companies and, where trading volume is thin, the ability to dispose of such securities may be more limited. Green Alpha portfolios may also invest in foreign domiciled companies. Investing in foreign securities may involve additional risks, including exchange-rate fluctuations, limited liquidity, high levels of volatility, social and political instability, and reduced regulation. Emerging markets are often more volatile than developed markets and investing in emerging markets involves greater risks. International investing may not be suitable for everyone. An investment in Green Alpha portfolios should be considered a long-term investment.
- The holdings identified throughout this document do not represent all the securities purchased, sold, or recommended for advisory clients. You may request a list of all recommendations made by Green Alpha in the past year by emailing a request to info@greenalphaadvisors.com. It should not be assumed that the recommendations made in the past or future were or will be profitable or will equal the performance of the securities cited as examples in this document.
- The MSCI All Country World Investable Market Index (ACWI IMI) captures large, mid, and small cap representation across 23 developed markets and 27 emerging markets countries. With more than 8,750 constituents, the index is comprehensive, covering approximately 99% of the global equity investment opportunity set. Investors cannot invest directly in this index.
- The SPDR MSCI Global Stock Market ETF (ticker: SPGM) seeks to provide investment results that, before expenses, correspond generally to the price and yield performance of the MSCI ACWI IMI. Investors can invest directly in SPGM.
- The S&P 500 Index is an unmanaged index of 500 common stocks chosen for market size, liquidity, and industry group representation. It is market-value weighted. The S&P 500 Index figures do not reflect any fees, expenses, or taxes. Investors cannot invest directly in this index.
- This presentation is for informational purposes only, and should not be construed as legal, tax, investment, or other advice. This presentation does not constitute an offer to sell, or the solicitation of any offer to buy, any security. Any mention of an individual security is for illustrative purposes only and should not be considered a recommendation to buy or sell any security. The presentation does not purport to contain all the information that may be required to evaluate Green Alpha Investments and its investment strategies.