

### Green Alpha!

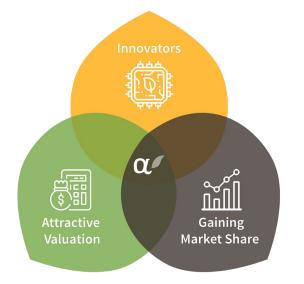
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### **Investment Philosophy**

We consider the greatest growth drivers of the twenty-first century to be high-functioning, inventive companies generating and accelerating solutions to system-level risks like the climate crisis, resource degradation, worsening inequality, and human disease burdens. Consequently, those companies are our chief opportunity for investments that preserve and grow clients' purchasing power.

Green Alpha's investment philosophy is straightforward: seek enterprises creating smart, scalable and rapidly evolving, economically-competitive solutions. Don't invest in companies causing global systemic risks.



### Why Invest in Growth & Income?

- Active research, stock selection, and portfolio mgmt
- Low volatility portfolio producing above-market dividend income, while seeking long-term capital preservation and growth
- 25-45 global, market-leading companies developing solutions to core economic and environmental risks
- Fossil fuel free since inception

Inception Date: October 31, 2012

Style: All-Cap Global Equities

Vehicle: Separately Managed Accounts

### Portfolio Construction

The Growth & Income portfolio is designed to harness the powerful combination of growth and current income within one portfolio. We seek investments in companies:

- with products and/or services lowering the global economy's risk profile by creating solutions to our most pressing economic and environmental risks
- committing more capital to R&D and owning more intellectual property than their peers
- run by effective, diverse executive teams and boards of directors with consistent track records of increasing revenues and expanding margins, leading to earnings growth and potential dividend increases
- that trade at compelling valuations relative to proven and anticipated growth, within acceptable levels of risk

Growth & Income portfolio holdings are then selected for current or potential dividend yield, coupled with strong revenue growth, and bought at a reasonable price. The strategy typically exhibits lower short-term volatility than other Green Alpha portfolios and broad market indices, while providing a competitive dividend yield. Our investments seek to de-risk the global economy, which in turn reduces clients' long-term investment risks.

# Harness the Possibilities

Segment	Demand Outlook	Tailwinds	Headwinds			
Zero-emission Transportation	•	<ul> <li>Scaling rapidly</li> <li>Competitive total cost of vehicle ownership</li> <li>Global gov't policies to limit or end ICE sales</li> <li>Lethality of ICE emissions increasingly well known</li> <li>Unbeatable user experience; ranges improving</li> </ul>	<ul> <li>Incumbent ICE makers resistant to change</li> <li>Incumbent dealer network resistant to selling EVs due to low maintenance profile</li> <li>Non-universality of charging solutions</li> <li>Length of charging time</li> </ul>			
Biotechnology	•	<ul> <li>Disruptive &amp; transformative in medicine – limitless addressable market</li> <li>One-and-done therapies less expensive than continuous legacy treatments of symptoms</li> <li>Removing disease burden will greatly increase the productivity of the global economy</li> <li>Also transforming materials &amp; agriculture</li> </ul>	<ul> <li>Still in preliminary stages</li> <li>Extensive R&amp;D required</li> <li>Resistance from treatment providers</li> <li>Gov't regulations slow to adapt</li> <li>Progress is nonlinear &amp; setbacks are inevitable</li> </ul>			
Renewable Energy	0	<ul> <li>Growing rapidly, gaining market share, represents large majority of new generation</li> <li>Cheapest sources of energy</li> <li>Key contributor to solving one of the greatest causes of the climate crisis</li> </ul>	• Resistance from industry (e.g., fossil fuels & utilities) interests, including via gov't policies like no net metering, subsidies to fossil fuels companies, & red tape around renewable energy deployment			
Technology & Data Infrastructure	•	<ul> <li>Wired, broadband, &amp; satellite efficiency improving rapidly</li> <li>Quantity of data flow increasing exponentially in era of data proliferation <ul> <li>Requires speed, accuracy, &amp; security</li> <li>Key to digitalizing, decarbonizing, &amp; dematerializing the economy</li> </ul> </li> </ul>	<ul> <li>Threats from bad actors</li> <li>Stock-specific valuations can get relatively high, as the productivity gain benefits &amp; need for the most innovative solutions is relatively obvious, &amp; no major legacy incumbency is resisting</li> </ul>			
Artificial Intelligence & Machine Learning	0	<ul> <li>Al advancements make economic segments more productive, from advanced materials to medicine</li> <li>Confluence between AI &amp; ML is synergistic &amp; transformative, enabling upstream advances</li> <li>Al allows positive-sum confluence of multiple areas of new tech, including energy, fintech, biotech, medicine, robotics, &amp; automation</li> </ul>	<ul> <li>Some industries have slower adoption; key is selecting companies prioritizing beneficial Al acquisition</li> <li>Adoption potentially slowed by workforce composition misperceptions</li> <li>Could pose security threats if improperly deployed; can accelerate threats</li> </ul>			
Financials	•	<ul> <li>Huge addressable market of underserved population; Alenabled fintech makes serving them possible &amp; profitable</li> <li>Best-in-class sustainable REITs are preferred homes to leading innovators, command premiums; sector includes renewable energy-powered data center REITs</li> <li>Providing renewable energy financing for utilities, etc.</li> </ul>	<ul> <li>Largest banks &amp; investment institutions still investing to accelerate the climate crisis; careful stock selection is imperative</li> <li>Greenwashing is pervasive in financial services; difficult for clients to disambiguate</li> <li>Industry suffering from lack of inclusive banking &amp; insurance options</li> </ul>			
Agriculture & Food	Ð	<ul> <li>Biotech &amp; Al are making possible the end of pesticides, herbicides, &amp; chemical fertilizers; farmland could regenerate</li> <li>Consumers shifting to natural &amp; organics</li> <li>Transparent chain of custody: food safety, ethical labeling</li> </ul>	<ul> <li>Clean freshwater is under threat</li> <li>Distribution infrastructure often inadequate</li> <li>Enormous levels of food waste exists</li> </ul>			
Water	Ð	<ul> <li>Elemental requirement for life</li> <li>Opportunities to create more freshwater, track &amp; measure where it is, &amp; where it needs to be</li> <li>Tech to find leaks &amp; quickly resolve them</li> </ul>	<ul> <li>Investment in old &amp; aging infrastructure woefully insufficient</li> <li>Regulations insufficient to protect supplies</li> <li>Degradation by harmful industries</li> </ul>			
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## Macroeconomic Commentary

The first quarter of 2022 was historic for the world, and dramatic for economies and markets. The dynamics involved are ongoing, so the geopolitical and economic story will continue to unfold, doubtless in surprising and unforeseen ways. Nevertheless, we can see new trajectories being established, and the picture thus far, though incomplete, provides some context.

First, the war in Ukraine. It is an unprovoked, needless, tragic, horribly destructive, ongoing series of war crimes, and must be condemned in the strongest terms. Geopolitically, it is a binary test for participatory democracy: will it stand up to and overcome authoritarianism, or will it, as it has so often before, dither and make excuses for why the dictator must be placated? The answer to this question will have severe and long-lasting impacts on civilization, scientific and cultural progress, and certainly on the world's economies. For example, will conflict erode social cohesion and trust, thereby reducing investment and trade, or will a resolute, unified response to the undisguised power grab foment trust and collaboration? These are medium and long-term questions; more proximally, the advent and continuation of the invasion has had several effects.

The economic picture is already complicated: an ongoing pandemic, supply chain shocks, inflation, tightening monetary policy. The invasion has added to each, further complicating the totality. The world must now deal with greater uncertainty around energy supplies and prices. If Europe should make the hard, but arguably correct, decision to cut off Russian oil and gas immediately and completely, Russia's war machine may be starved, but Europe's GDP would surely decline, potentially serving as a contagion for global recession.

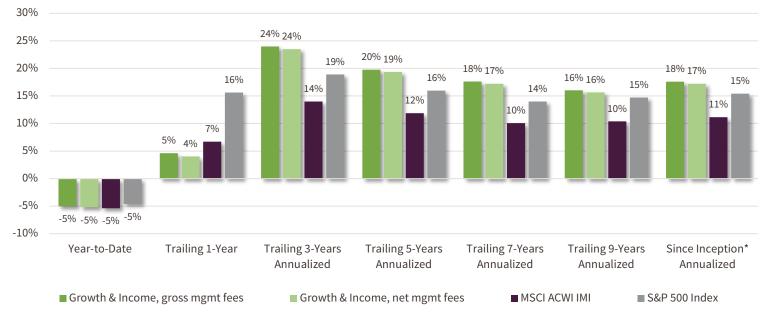
The other side of that coin, one that so far has been beneficial to Green Alpha portfolios, is a growing conviction that renewable energies—being locally sourced, inexpensive, and non-volatile in price once installed—make a fantastic fortification against the current global paradigm of energy-as-a-potential-weapon. Renewable energy stocks were generally in decline in the year preceding the invasion but has since made a significant recovery. It seems likely the conflict will continue to catalyze the trends away from investing in fossil fuels and toward acceleration of renewables (albeit paired in the shorter run by a search for new sources of gas). This shift is fortunate on the climate front as well, as the IPCC warned us early in Q2 that the world has been dangerously underfunding the transition to renewables, to the extent that the COP26 agreements will be difficult to meet. Despite all the national, corporate, and financial services hollow words to net-zero goals, emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and so on, are still not decreasing—they're accelerating. And yes, that's the result of the world's investment activities.

All this is causing a surge in energy prices, which is exacerbating inflation and leaving the world's central banks scrambling to determine appropriate responses to perhaps slow inflation without strangling economies and companies, the more indebted of which can ill afford large rate hikes.

The invasion of Ukraine is revealing the interconnectedness of the commodity systems—sourcing, distribution, and pricing—that underpin the global economy, and the vulnerabilities those systems have always been subject to. Though we've been discussing energy, food is critical in this picture as well: estimates are that combined Russian and Ukrainian grain exports provided 12% of the world's calories in 2021, and Russia is a dominant supplier of agricultural fertilizer. Some metals and other goods are core Ukrainian and Russian products as well. Disruption in these commodity systems adds further inflation pressures, placing additional stressors on central banks, policy makers, and consumers alike.

Still, we can invest to mitigate these risks. The opposite of vulnerability is diversification: diversification of energy sources, food supplies, lithium, and other materials critical to accelerate the energy transition, and so forth. For us at Green Alpha, the key to navigating all these risks—climate, geopolitical, and economic—is what it has always been: secure our portfolios against the destructiveness of these shocks by investing in the solutions to the risks that fuel them. Invest in and channel capital to greater energy security and independence, to lessen global warming, to greater social cohesion and trust. By believing that only solutions to these systemic risks have long term value—and investing that way—we position ourselves to earn competitive returns on a long-term average annual basis.

# Portfolio Commentary & Performance



Predicated on this thesis, Green Alpha's portfolios consist of the most dynamic, innovative companies we can find, across all sectors, actively disrupting the destructive legacy economy and making the Next Economy safer and more economically productive. By selecting what we believe are the most fundamentally sound and well-managed exemplars, we are confident we've constructed portfolios positioned to resist the complicated risks of our economic future, and furthermore, to increase our clients' buying power into that future. We have conviction this will continue to be the case for our strategies, even during shorter-term periods of underperforming index benchmarks.

Rest assured: we won't revise our investment philosophy in response to short-term volatility, and you won't see style drift within our strategies. We're not here for that; we're here to build and benefit from the de-risked Next Economy.

For the first quarter of 2022, the Growth & Income strategy returned -5.19% net of management fees, compared to its benchmark, the MSCI All Country World Investible Market Index (MSCI ACWI IMI), which returned -5.37%.

Sectors detracting from the portfolio's returns were Technology and Health Care.

- Within Technology, declines came from the semiconductor industry, with geopolitical and supply chain concerns weighing on shares across the value chain, from upstream capital equipment providers to midstream designers, developers, and manufacturers, and downstream to end-users.
- Negative contributions from the Health Care sector were the result of declines in the biotech industry, as traders continued to shy away from growth names in a perceived flight to safety amid political and economic uncertainty.

Top performing sectors for the Growth & Income portfolio were Utilities and Consumer Staples.

- Consumer Staples contributed mainly because a leading natural and organic food retailer reported strong results and benefitted from a secular rotation to value and perceived safety. These gains were partially offset by losses in a large organic food provider, as supply chain difficulties limited shipments and degraded margins.
- Gains from the Utility Sector were provided by a leading global electric utility, solely focused on generating renewables-based energy. Renewable energies as a whole did well in the latter half of the first quarter as geopolitical events highlighted the need for, and importance of, locally generated, zero carbon energies.

\*Portfolio Inception: October 31, 2012. 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 important disclosures about portfolio, benchmark, and characteristic information.

# Largest Positions

How the Growth & Income portfolio is driving progress toward the Next Economy

#### Horizon Technology Finance (Sector: Financials)

• Horizon provides structured debt to innovative companies, primarily in life sciences, healthcare information services, sustainability, and cleantech. Horizon has deployed more than \$2 billion in venture loans, including their

~ \$450 million book, to more than 250 businesses in the underserved venture loan space. The loan portfolio is conservatively managed with transactions usually well below their maximum of \$25 million and terms of 48 months or less backed by security of offering debt on a "first lien" or "first lien behind a bank revolver" basis. They often partner with other institutions to reduce risk.

• Technology, sustainability, life sciences, and healthcare technology companies are attracting record investments on the VC side, despite—or perhaps because of—the pandemic. This means HRZN enjoys a growing TAM in an underserved debt market and offers opportunity to invest in a venture loan fund that constitutes a diversified basket of privately-held Next Economy<sup>™</sup> companies via a single stock.

#### Brookfield Renewable (Sector: Utilities)

- Brookfield is one of the world's leading zero-carbon, 100% renewables-based energy utilities. Through project development, organic growth, and M&A activity, the company has grown to own ~21 GW of operational electricity production capacity, with a pipeline of ~62 GW of renewable electricity generation capacity globally as of February 2022.
- Financially, Brookfield is very conservatively managed, is continually looking for acquisitions at favorable prices, and has revenues largely backed by long-term power purchase agreements with high-quality clients. Their long-term goal is to provide annualized investment returns of 12%-15%, which includes planned annual dividend increases.
- BEPC: "Decarbonization will create an unparalleled commercial opportunity requiring \$150+ trillion over the next three decades."

#### IBM (Sector: Technology)

- IBM has re-emerged as a Next Economy innovation powerhouse. Their primary initiatives to drive present and future revenues include blockchain code and technology, cloud computing, AI and machine learning, and quantum computing.
- IBM is a top patent holder across many domains: cloud and cognitive software; quantum computing; enabling distributed ledger; pioneering AI; developing security methods atop lattice cryptography; advancing nanotechnology; developing and applying Watson AI across industries, including medicine, water, food safety; and the most accurate weather forecasting tech.

#### Vornado Realty Trust (Sector: Real Estate)

- Vornado Realty Trust is a REIT focused on office and retail space primarily in Manhattan, NYC.
- Financially, Vornado is conservatively managed, easily weathering the downturn in office rents associated with the COVID-19 pandemic, and continues to feature an attractive dividend yield with a stable coverage ratio. For this reason, we believe it has been rewarded by market multiple expansion in recent months to have grown organically into a top 10 holding in the portfolio.
- Vornado is a sustainability leader. In 2021, the company published a commitment to making all buildings carbon neutral by the year 2030, largely via renewable energies and electrifying all building operations. On the road to those goals, the firm has reduced their energy consumption 24% between 2009 and 2019, and a further reduction in 2020, although they resist claiming credit for all of 2020, as some was pandemic-related. The company counts Scope I, II, and III in its accounting.

#### Hudson Pacific Properties (Sector: Real Estate)

- Hudson Pacific Properties is a REIT with properties on the west coast of the U.S. and Canada. One of the attractive aspects of Hudson Pacific's business model is the company's focus on tenant innovators in tech, biotech, and media. Green Alpha believes this will result in market and revenue expansion, and subsequently in operating leverage.
- Hudson Pacific features a portfolio of over 20 million square feet (including land for development) in advanced, highly desirable buildings and locations, leading to a year-end occupancy level of 92.8% leased, industry leading in the wake of the pandemic.
- HPP achieved carbon neutrality across operations in 2020, making the firm among the first major real estate companies to achieve neutrality. HPP also had an exemplary response to COVID-19 with their health and safety protocols leading them to became one of the first companies in North America to achieve Fitwel's Viral Response Module certification for all properties. *Please see the final page of this document for important disclosures about portfolio, benchmark, and characteristic information.*

Company Name	Ticker	Weight
Horizon Tech Finance	HRZN	6.31%
Brookfield Renewable	BEPC	5.72%
IBM	IBM	5.18%
Vornado Realty Trust	VNO	4.84%
Hudson Pacific Props	HPP	4.83%
% of Portfolio		26.88%

### Growth & Income

How the portfolio compares to the MSCI All Country World Investible Market Index (MSCI ACWI IMI) and other Green Alpha portfolios

### Characteristics

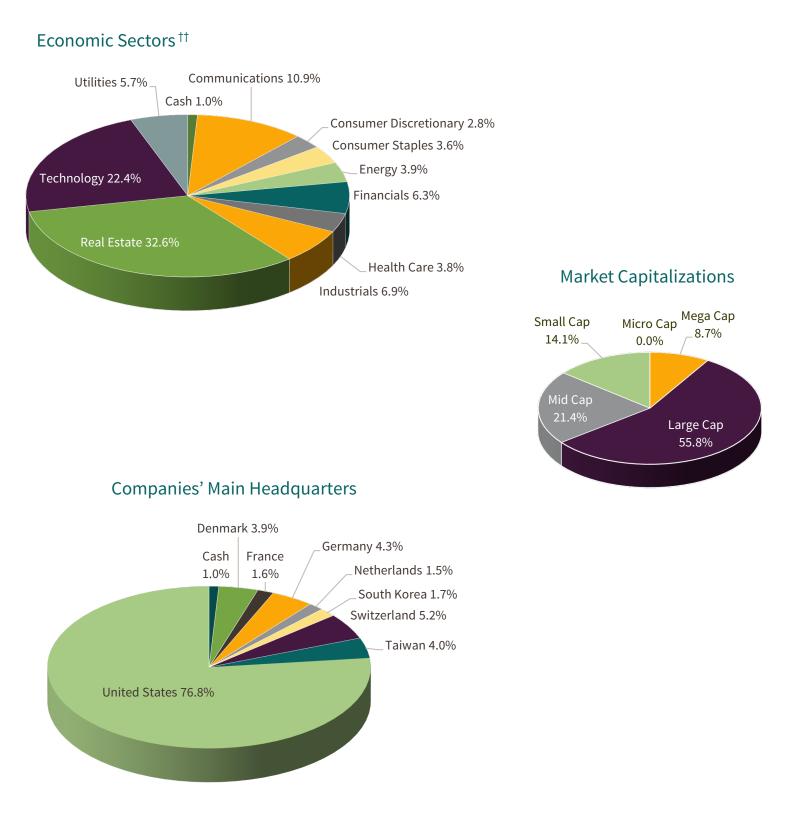
- **High Income** a compelling combination of robust growth and dividend income that is higher than the broad equity market
- Fundamentals-driven: the underlying quality of companies and the price paid for their shares are key drivers of LT returns
  - ✓ High growth: indicated by Sales Growth, and a 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, and Current Ratio
- Fossil fuel free since inception: we have never invested in companies that prospect, extract, refine, or transport fossil fuels, nor in fossil-fired utilities or internal combustion engine manufacturers
- 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; largest opportunity for impact

Characteristics	Green Alpha Growth & Income	Benchmark: MSCI ACWI IMI (SPGM)	Green Alpha Next Economy Index	Green Alpha Next Economy Social Index	Green Alpha Next Economy Select	Sierra Club Green Alpha
# of Securities	35	2,430	139	88	57	47
Active Share	97%	-	93%	95%	96%	96%
Sales Growth, Trailing 1-Yr	1,864%	39%	671%	504%	4,261%	2,640%
P/E, Current	16.16	17.26	21.82	24.64	17.79	19.86
P/E, 1-Year Forward <sup>†</sup>	18.28	15.71	21.09	23.88	20.10	22.99
Price/Sales	1.90	1.89	2.67	2.57	1.88	1.69
Price/Book	2.36	2.71	3.88	4.07	2.87	3.22
LT Debt/Equity	1.40	0.84	0.82	0.92	0.94	1.02
Current Ratio	1.77	1.90	2.87	2.71	3.12	2.80
Dividend Yield	3.50%	2.36%	1.85%	1.89%	2.35%	2.04%
Market Capitalization, Weighted Avg (US\$B)	\$69.79	\$381.33	\$121.92	\$119.24	\$149.09	\$134.94
Market Capitalization, Median (US\$B)	\$32.19	Not Available	\$10.24	\$11.87	\$8.59	\$17.77
Turnover, Trailing 2-Yr Avg Annual	25%	-	20%	23%	6%	20%
Beta, Trailing 2-Yrs	1.07	1.04	1.11	1.09	1.19	1.21

<sup>†</sup>Bloomberg consensus estimates. Please see the final page of this document for important disclosures about portfolio, benchmark, and characteristic information.

# Portfolio Allocations

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



<sup>††</sup> Bloomberg Industry Classification Standard. Please see the final page of this document for important disclosures about portfolio, benchmark, and characteristic information.

# 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 is a registered trademark of Green Alpha Advisors, LLC. Green Alpha Advisors also owns the trademarks to "Next Economy," "Next Economy," "Next Economy," "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 July 31, 2021, the Growth & Income performance results are a composite of discretionary client accounts invested in the 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. The Growth & Income composite performance results reflect actual performance for a composite of discretionary client accounts, net of actual management fees and transaction costs. Some assets managed in the Growth & Income strategy within the composite receive a reduced fee from the standard management fee schedule. Actual client returns experienced will vary from the composite returns 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 Advisors, LLC. Growth & Income performance results do not reflect the reinvestment of dividends and interest.
- 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/.
- From the strategy's inception through July 31, 2021, Growth & Income performance results reflect performance of a model portfolio. The Growth & Income model performance does not reflect any transaction costs. Growth & Income model performance results do reflect the reinvestment of dividends and interest. Model performance has inherent limitations. The returns shown during that time period are model results only, and do not represent the results of actual trading of client assets. The model performance shown does not reflect the impact that material economic and market factors had, or might have had, on decision making if the account held actual client capital. Actual client accounts in this strategy are managed by Green Alpha based on the model portfolio, but the actual composition and performance of these accounts may differ from those of the model portfolio due to differences in the timing and prices of trades, and the identity and weightings of securities holdings.
- The Growth & Income strategy contains equity stocks that are managed with a view towards capital appreciation and current income. 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.
- Regardless of time frame, all characteristics data are sourced from Bloomberg Finance L.P. based on a model Growth & Income portfolio that may or may not be exactly what is delivered on each custodial or wrap account platform.
- 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 <u>info@greenalphaadvisors.com</u>. 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 of the information that may be required to evaluate Green Alpha Advisors and its investment strategies.