

# Growth & Income

December 31, 2019



## Green Alpha<sup>®</sup>

### Contents

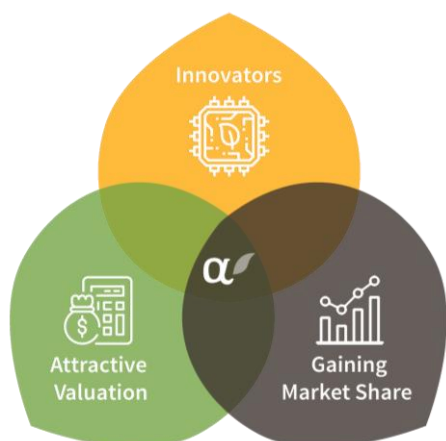
Portfolio Characteristics .....	2
Largest Positions .....	3
Sector, Geographic, and Market Cap Allocations .....	4
Performance and Manager Commentary .....	5
Disclosures .....	7

### Investment Philosophy

We believe companies that create or enable innovative solutions to climate change, resource degradation and scarcity, and widening inequality are the greatest growth drivers of the twenty-first century. The idea is to invest in the best, growing industries that are building an extremely efficient, sustainable economy – that’s what we call the Next Economy.<sup>™</sup>

Green Alpha’s investment philosophy is straightforward: don’t invest in companies that cause global systemic risks; instead, invest in the most innovative, rapidly evolving solutions.

We believe these companies will gain market share from their legacy economy counterparts – today and into the future. That makes investing in them our best chance at helping clients preserve and grow their purchasing power.



### Why Invest in Growth & Income?

- Active research, stock selection, and portfolio management
- Low volatility portfolio producing above-market income, while seeking long-term capital preservation and growth
- 25-35 global, market-leading companies developing solutions to core economic and environmental risks
- Fossil fuel free since inception

**Inception Date:** October 8, 2012

**Style:** All-Cap Global Growth 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:

- whose products and/or services lower the 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 leadership teams and boards of directors with consistent track records of increasing revenue, and expanding margins, leading to earnings growth and potential dividend increases
- trading at compelling valuations for proven and expected growth, within acceptable levels of risk

Growth & Income portfolio holdings are then selected for current or potential dividend yield coupled with strong revenue growth, bought at a reasonable price. The strategy typically exhibits lower short-term volatility than other Green Alpha portfolios, and the broad equity markets.

Our Investment Team seeks to de-risk the global economy while reducing our clients’ long term investment risks.

# 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 strong growth and dividend income that is higher than the broad equity market
- **Fundamentals-driven** – the underlying quality of the companies you invest in and the price you pay for them matter
  - ✓ **High growth** – indicated by Sales Growth, drop in Current P/E to Forward P/E as revenue and earnings grow
  - ✓ **Compelling valuation** – demonstrated by Price/Sales, Price/Book metrics
  - ✓ **Strong balance sheet, solid management execution** – expressed by LT Debt/Equity, Current Ratio
- **Fossil fuel free since inception** – we have never invested in companies that prospect, extract, refine, or transport fossil fuels, nor fossil-fired utilities or internal combustion engine manufacturers
- **Diversified** – we look for solutions wherever we can find them – across the globe, companies of all sizes, in every industry
- **Public equities, long-only** – 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	31	1,322	120	92	53	42
Sales Growth, Trailing 1-Yr	15.33%	9.20%	14.19%	19.05%	20.82%	11.41%
P/E, Current	22.78	18.24	26.34	25.93	21.70	25.23
P/E, 1-Year Forward <sup>†</sup>	20.33	15.85	20.83	22.16	17.72	20.57
Price/Sales	2.47	1.60	1.61	1.01	1.64	1.81
Price/Book	2.57	2.37	3.24	3.89	2.78	2.86
LT Debt/Equity	1.26	0.86	0.78	1.17	0.87	0.79
Current Ratio	1.95	1.71	2.75	2.76	2.93	2.76
Dividend Yield	4.20%	2.72%	2.30%	2.46%	2.70%	2.63%
Market Capitalization, Weighted Avg (US\$B)	\$34.74	\$181.72	\$77.96	\$78.50	\$54.21	\$72.75
Market Capitalization, Median (US\$B)	\$15.63	Not Available	\$7.41	\$9.68	\$5.24	\$4.93
Turnover, Trailing 1-Yr	13%	-	24%	31%	16%	5%
Beta, Trailing 2-Yrs	0.86	0.99	1.09	1.11	1.09	0.99
Active Share	98%	-	94%	94%	97%	97%

<sup>†</sup> Bloomberg consensus estimates. 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

## Pattern Energy Group (Utilities, Power Generation)

- 31 utility-scale wind power projects in the U.S., Canada, Japan, and Mexico, with ~3.7 gigawatts of generating capacity. Also own solar, transmission, and storage projects with aggressive plans “to double the megawatts we own or manage by the end of 2020”
- High-quality, investment-grade, long-term power purchase agreements (PPAs) translate to steady revenue stream
- Conservative financial management; not dependent on ever-inflating share price or additional capital raises to continue growing or provide a high dividend yield
- Above-average gender diversity for a utility company, with two women in Senior Leadership, and two on the Board of Directors, including the Chair of the Audit Committee

## Terraform Power (Utilities, Power Generation)

- Owner of wind and solar power generation assets that serve utility, commercial, and residential customers
- Expanding global portfolio, with facilities located in the U.S., Canada, the UK, Spain, Portugal, Chile, and Uruguay, with ~3.7 gigawatts of generating capacity
- Brookfield Renewable Partnership’s sponsorship provides backing and credit security needed to continue TerraForm’s expansion of its energy portfolio, while maintaining a high dividend payout

## Hannon Armstrong Sustainable Infrastructure (Financial, Real Estate)

- Functions like a diversified financial/bank funding renewable energy and efficiency projects, with \$5.5 billion in managed assets
- Their 185+ investments and loans are generally senior to those of the project sponsor, so are high quality and unlikely to default
- Portfolio spans wind, solar, sustainable infrastructure (water delivery system, storm water remediation, seismic retrofits), and efficiency. Possess aggregate assets in multiple categories, all related to renewable energy and efficiency
- Senior Management includes two women (17%), as does its Board of Directors (29%), including key Executives, the Lead Independent Director, and Chair of the Nominating, Governance, and Corporate Responsibility Committee

## Horizon Technology Finance (Financials, Specialty Finance)

- Provides structured debt products (i.e., loans) to innovative, mainly pre-IPO, companies
- Has invested in more than \$1.2 billion in venture loans to 200+ growing businesses in the underserved venture loan space
- Portfolio includes technology, life science, healthcare information and services, and cleantech industries
- Offers public equity investors opportunity to invest in a venture loan fund (a basket of private, Next Economy companies) via a single stock

## Qualcomm (Technology, Semiconductors)

- Multinational company that designs and markets wireless telecommunications products and services
- Global leader in 5G technology, at least a year ahead of the next closest competitor for device-level 5G-enabled tech; major R&D expenditures signal that they likely to remain global leaders
- Connectivity—swift data exchange and use between devices—is key to an efficient/sustainable economy, and Qualcomm enables this across applications: auto, health care, IoT, mobile computing and networking
- Women make up 25% of the Board of Directors, including the Chair of the Compensation Committee

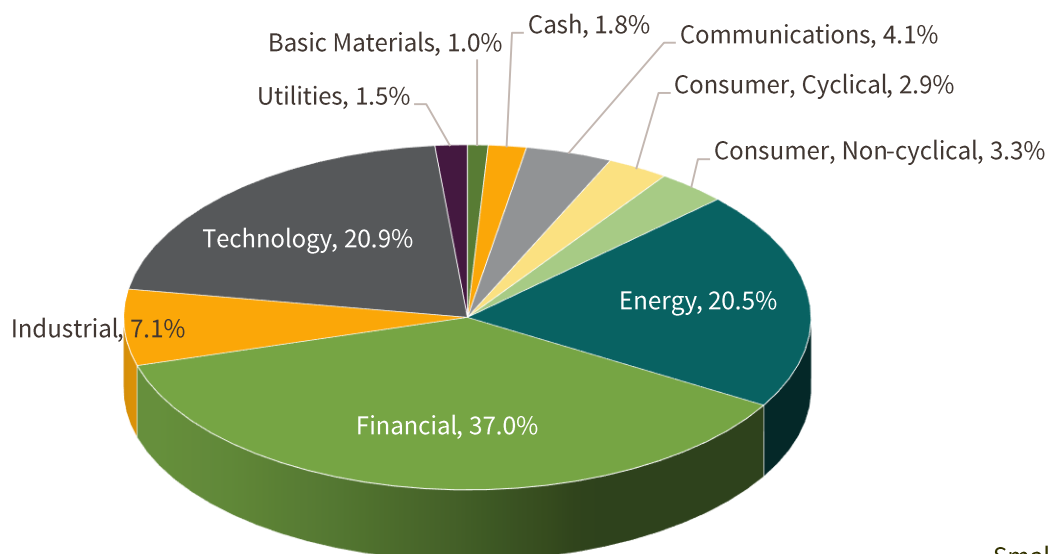
Company Name	Ticker	Weight
Pattern Energy Group	PEGI	8.68%
Terraform Power	TERP	8.16%
Hannon Armstrong Sustainable Infrastructure	HASI	8.01%
Horizon Technology Finance	HRZN	6.12%
Qualcomm	QCOM	4.68%
<b>% of Portfolio</b>		<b>35.65%</b>

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

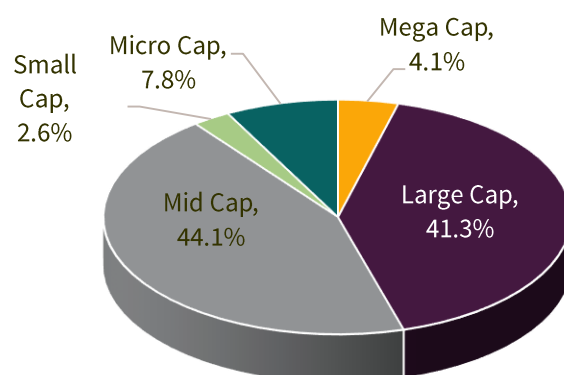
# Portfolio Allocations

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.

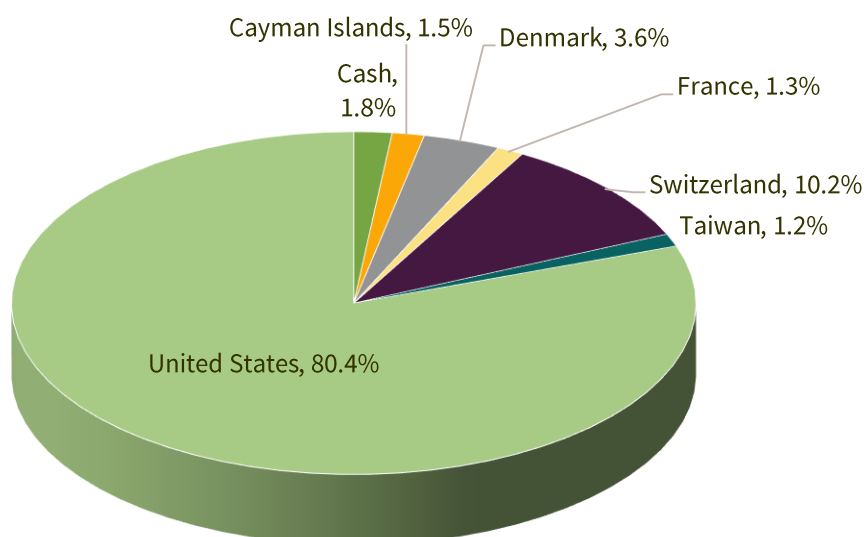
## Economic Sectors<sup>††</sup>



## Market Capitalizations



## Companies' Main Headquarters



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

# Performance & Commentary

Green Alpha's stock selection process flows from the knowledge that the most effective sustainability strategies and the most promising places to look for equity growth both require innovation and ever-accelerating productivity gains.



Across our portfolios, the application of our Next Economics™ thesis continued to work well in 2019, with each Green Alpha portfolio significantly outperforming its benchmark. What are the ideas behind Next Economics? There are two important topics. First, Next Economics is a macroeconomic thesis of how the economy is evolving and needs to evolve to have a chance at indefinite growth that does not destroy the ecosystems that support us. Second, it is a way of investing in equity markets to capitalize on this transition via forward-looking

portfolio construction process that has more in common with private equity analysis than it does with traditional methods of public equity management. Leveraging this thesis, we are aligning investing with the most rapid growth areas in the global economy and thereby preserving and growing our clients' buying power into the future. Which, of course, is the point of investing in the first place.

At Green Alpha, we translate our thesis into actual investing by intentionally setting up our portfolio construction processes to identify the right set of investment opportunities. Our processes recognize that in order to achieve a portfolio set of holdings entirely invested in what's next, as opposed to what was, we must properly prioritize research topics. First and foremost, we need to know if a company is improving the economy – if its revenues come from lowering the overall risk profile of the global economy – and if it can function indefinitely without raising more risk than it solves.

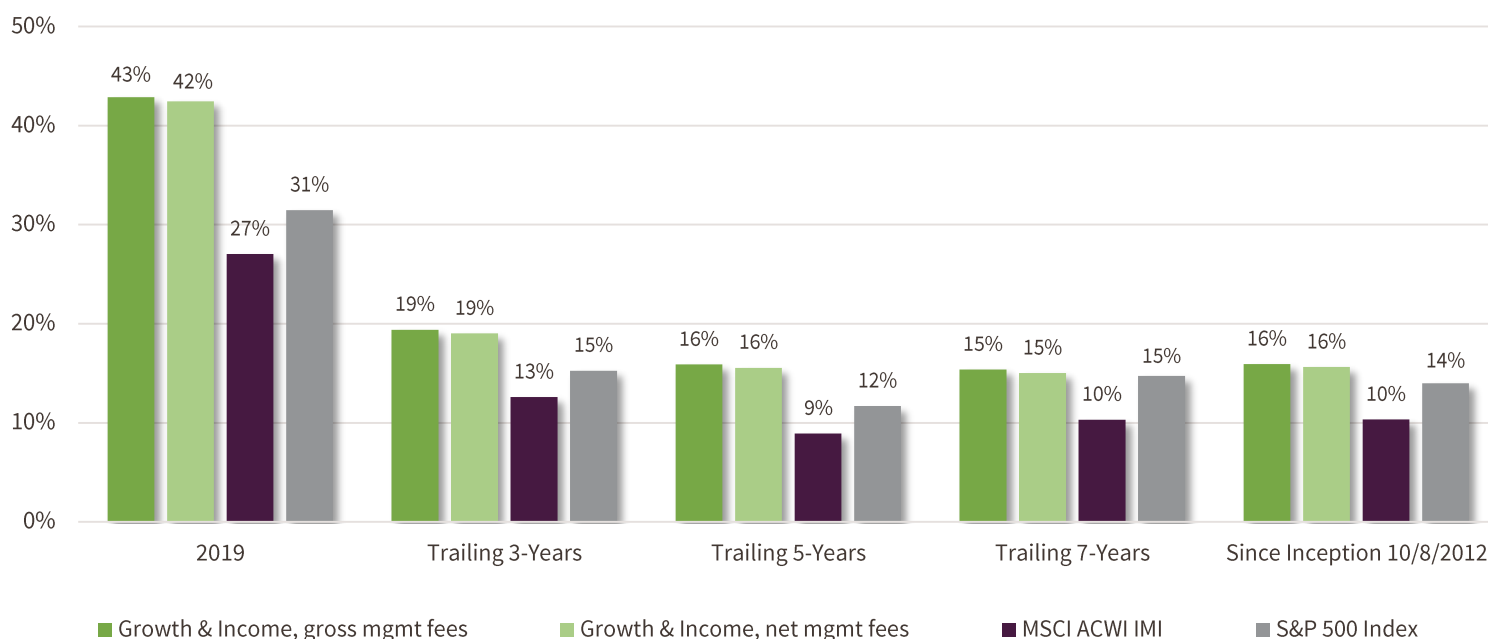
For example, looking back at 19<sup>th</sup> and 20<sup>th</sup> century technologies like fossil fuels and internal combustion engines is no longer an interesting way to seek growth. It is rather in new means of production that are economically and functionally superior to their predecessors where one can find value looking forward. In the modern knowledge economy, much if not most value accrues to the owners of the intellectual property that defines these new means of production, so it is largely in these owners that we seek to invest. This requires thinking anew about public equity markets and requires us to carefully evaluate each prospective investment on its merits, without respect to market cap, nation of domicile, or membership in any particular index.

Traditional methods of sector allocation and blind indexing without evaluation of individual company contribution to the global economy cannot access these analyses or methods of portfolio construction. Our approach makes Green Alpha different, and we firmly believe this difference confers an ability to realize very competitive absolute performance over time.

Please read the following page for performance results we've achieved for clients invested in the Growth & Income portfolio.



# Performance & Commentary *(continued)*



**In 2019, Green Alpha's Growth & Income portfolio returned 42.5%, net of management fees, vs the MSCI All Country World Investible Market Index (ACWI IMI) return of 27.0%.**

The sectors contributing the most to the portfolio's returns were Financials, which added 15.4%, Technology at 10.8%, and Energy with 9.5%.

- Financials were buoyed by sustainable real estate REITS, including renewables-powered data centers, fiber and wireless bandwidth providers, and a REIT that specializes in providing space for high tech research and biotech applications.
- In the Technology sector, the world's leading IP owners and chip makers led returns, with an upstream original equipment manufacturer contributing as well. Other gainers in Tech included an innovation leader in AI, machine learning, and blockchain. These firms are enabling productivity gains via 5G, IoT, autonomy, robotics, communications, smart cities, and more.
- The Energy sector, which Green Alpha defines as a diversified group of renewables, returns were generated by wind and solar-based electric utilities, and the world's leading designer, developer, and manufacturer of wind turbines.

**No sectors detracted from performance in the Growth & Income portfolio for 2019.** The lowest performing sectors were Basic Materials adding 0.1%, Utilities with 0.7%, and Consumer Cyclical at 1.2%.

- Basic Materials exposure in this portfolio consists entirely recycled steel, which had a volatile but slightly positive year. It is highly dependent on the global commodity price, and as such is exposed to trade conflict concerns.
- In the Growth & Income portfolio, the Utilities sector is also limited to one water utility, which is a desalinization-based water creator to arid and island-based populations. The company contributed positively to the portfolio's 2019 growth.
- In the Consumer Cyclical sector, a provider of sustainably sourced furniture and was the strong contributor.

*All returns presented above that are greater than 1 year in length have been annualized. Performance data quoted represent 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.*

# Important Disclosures

- 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.
- Growth & Income performance results reflect performance of a model portfolio. The Growth & Income model performance does not reflect any transaction costs. Growth & Income performance results do reflect the reinvestment of dividends and interest. The Growth & Income model 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. Model performance has inherent limitations. The returns shown 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.
- All performance and characteristics data are sourced from Bloomberg Finance L.P. 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 of 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](mailto: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 S&P 500 Index is an unmanaged index of 500 common stocks chosen for market size, liquidity and industry group representation. It is a market-value weighted index. The S&P 500 Index figures do not reflect any fees expenses or taxes. Investors cannot invest directly in this index.
- MSCI ACWI IMI: The MSCI All Country World Investable Market Index (ACWI IMI) captures large, mid and small cap representation across 23 developed markets and 24 emerging markets countries. With over 8,700 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.
- 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.
- 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 Economics,” “Next Economy Portfolio Theory,” “Investing in the Next Economy,” and “Investing for the Next Economy.”
- For additional legal information and Form ADV Part 2, please see <http://greenalphaadvisors.com/about-us/legal-disclaimers/>.