# Green Alpha€

Largest Positions	2
Macroeconomic Commentary	4
Performance and Sector Attribution	6
Portfolio Characteristics	7
Sector, Geographic, and Market Cap Allocations	8
Disclosures	9

### **Investment Philosophy**

The driving forces behind economic growth are:

- companies accelerating productivity, and
- businesses tackling urgent global challenges.

High-performing enterprises can revolutionize efficiency while also developing solutions for critical issues like climate change, resource depletion, social inequality, and public health crises. By doing so, they can create economic expansion and actualize a more sustainable and equitable future. These innovative companies offer the most promising investment opportunities, providing security and growth potential for our clients' capital.

Our strategy is clear: we focus on identifying and investing in businesses that are developing brilliant, scalable, adaptable, and economically viable solutions to global challenges.



### Why Invest in the Next Economy Index?

- Active research and stock selection, passively managed through an annual rebalance
- All-cap means it captures smaller companies accelerating momentum in a massive market transition, in addition to large, proven firms
- ~150 global, market-leading companies developing solutions to core economic and environmental risks

Inception Date: December 31, 2008

Vehicle: Separately Managed Accounts

### Research

We select companies for our portfolios based on:

- *Impact*: Businesses offering innovative solutions to critical economic, environmental, and other global challenges.
- *Innovation Leadership*: Companies investing heavily in R&D, intellectual property, and capital expenditures.
- Strong Management: Diverse, effective teams aligned with shareholders, demonstrating revenue growth, expanding profit margins, and potential dividend increases.
- Financial Health: Businesses with robust balance sheets and smart capital allocation strategies.
- *Value*: Companies whose stock prices offer attractive value relative to proven performance and growth prospects.

These and other factors help us construct portfolios that aim for strong returns and build a more sustainable economy. We concentrate on long-term success in an evolving landscape.

### Portfolio Construction

The Next Economy Index combines:

- 1. Active research and stock selection
- 2. Passive portfolio construction

We include all companies that pass our top-down and bottom-up research processes with high proprietary scores.

This portfolio reflects companies creating the innovative, efficient, and sustainable economy displacing legacy systems. All other Green Alpha portfolios are subsets of this portfolio.

# Largest Positions

How the Next Economy Index is driving progress toward the Next Economy

### **Xpeng** (Sector: Consumer Discretionary, Industry: Automotive)

- Xpeng is at the forefront of AI-driven autonomous vehicle technology in China, with its XNGP Advanced Driver Assistance System offering full-scenario assistance capabilities that rival those of Tesla's FSD—positioning it as a technological leader in the world's largest EV market.
- The company's strategic expansion into Europe (including Norway, Sweden, Denmark, and the Netherlands) opens significant growth avenues beyond its domestic market, with its G9 SUV and P7 sedan models gaining traction internationally.

Company Name	Ticker	Weight
Xpeng	XPEV	1.70%
Rubrik	RBRK	1.44%
Deutsche Telekom	DTEGY	1.31%
Cisco Systems	CSCO	1.28%
Archer Aviation	ACHR	1.25%
CrowdStrike Holdings	CRWD	1.23%
IBM	IBM	1.20%
Cloudflare	NET	1.18%
Twilio	TWLO	1.13%
Guardant Health	GH	1.11%
% of Portfolio		12.83%

- Xpeng's vertical integration includes in-house development of key technologies like autonomous driving systems, electric powertrains, and charging infrastructure —giving it greater control over its supply chain and technology roadmap than many competitors.
- The company is making significant strides in its electric vertical take-off and landing (eVTOL) vehicles through its affiliate Xpeng Aeroht, which recently completed successful test flights potentially positioning Xpeng at the intersection of two revolutionary transportation markets.
- Xpeng stands at the vanguard of Al-driven autonomous vehicle technology in China, which has dramatically leapfrogged much of the world in EV/AV development. For investors seeking exposure to true global leaders in electric and autonomous driving, the Chinese market is now essential territory, and this is one of its most promising pioneers.

### Rubrik (Sector: Technology, Industry: Software)

- Rubrik is a cloud data management and security company offering a variety of solutions that span data protection, threat analysis, data security posture management, and cyber recovery.
  - <u>Combating Ransomware:</u> Rubrik is on the front lines of fighting ransomware, offering solutions that not only back up your data but also help identify and neutralize threats before they can cause damage.
  - Zero Trust Data Security: They are pioneers in the Zero Trust Data Security approach, adding layers of protection to your valuable data and making it much harder for hackers to succeed.
  - <u>Cloud-Native Solutions:</u> Rubrik was born in the cloud era, so their solutions are designed to be cloud-native. This means they're built to be flexible, scalable, and integrate seamlessly with your existing cloud infrastructure.
  - <u>AI-Powered:</u> Rubrik's platform is powered by artificial intelligence (AI). This allows for things like automated data management, anomaly detection, and predictive analytics.
  - <u>Simplified Data Management:</u> Rubrik aims to make data management simpler and more efficient. Their platform
    provides a single pane of glass to manage all your data, whether it's on-premises or in the cloud. This saves
    businesses time and money while reducing complexity.

**Deutsche Telekom**, **Cisco Systems**, and **Archer Aviation's** Next Economy attributes are continued on the next page.



# Largest Positions continued

### **Deutsch Telekom** (Sector: Communications, Industry: Telecomm)

- Deutsche Telekom's majority ownership of T-Mobile U.S. (58.5%) provides investors with substantial exposure to the fastest-growing major telecom in North America, effectively making it a "backdoor play" on the booming US 5G market while trading at a more attractive valuation multiple than its American subsidiary.
- The company has steadily increased its dividend over the past several years and offers a healthy yield, providing both income and growth potential—a rare combination in today's telecom landscape as many competitors struggle with debt and infrastructure costs.
- Deutsche Telekom's strategic focus on fiber-optic expansion across Europe positions it to capture the growing demand for high-speed connectivity, with plans to connect 10 million German households to fiber by 2024 and leading fiber deployments across its European footprint.
- Beyond core telecom services, Deutsche Telekom has established itself as a leader in the European cloud services and cybersecurity markets through T-Systems, creating additional growth vectors as enterprises accelerate their digital transformation initiatives.
- Deutsche Telekom powers its global operations entirely with electricity from 100% renewable sources and aims for complete climate neutrality across its entire value chain (including suppliers and product use) by 2040, demonstrating industry leadership in decoupling economic growth from carbon emissions.

### **Cisco Systems** (Sector: Technology, Industry: Tech Hardware)

- Cisco is strategically pivoting from its traditional hardware-centric model to a subscription-based software and services business, with recurring revenue now accounting for over 44% of total revenue—creating a more stable, predictable growth trajectory while delivering higher margins than its legacy networking equipment business.
- The company is capitalizing on the AI revolution through its AI-ready networking infrastructure and specialized data center solutions, positioning Cisco to benefit significantly from the massive investment wave in AI infrastructure that's expected to reach \$1 trillion globally by 2030.
- Cisco's dominance in enterprise networking gives it a privileged position to lead in cybersecurity, where it has built a comprehensive platform generating over \$4 billion in annual revenue making it one of the world's largest cybersecurity providers at a time when threats and budgets are rapidly expanding.
- As an established tech giant with strong cash flows, Cisco offers investors a rare combination of growth potential, income (via dividend yield), and stability.
- Importantly, in an industry not especially known for great diversity at the top, Cisco is led by 38% female executes and 40% of the Board are women. Diversity at the top fosters a richer, more dynamic, and ultimately more effective leadership environment that drives innovation, better decision-making, and stronger overall performance. It's not just about ticking boxes; it's about unlocking the full potential of an organization.

### **Archer Aviation** (Sector: Industrials, Industry: Aerospace & Defense)

- Archer is positioned to capture a significant share of the projected \$1 trillion urban air mobility market by 2040, transforming urban transportation with its industry-leading electric vertical take-off and landing (eVTOL) technology.
- The flagship Midnight aircraft combines breakthrough engineering (proprietary 12-tilt-6 configuration) with superior passenger experience—delivering impressive 100-mile range and helicopter-beating noise levels (just 45 dBA at 500 ft).
- Unlike typical pre-revenue aerospace startups, they have secured commercial validation through its landmark United Airlines deal (\$1 billion firm order, \$6 billion in options) and strategic DoD contracts, providing a clear path to revenue.
- Archer has strategically outpaced competitors on certification timeline (75%+ of FAA requirements completed) while simultaneously building high-volume production capacity—creating a powerful first-mover advantage in an industry where regulatory approval is the critical market barrier.

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



# Macroeconomic Commentary



Welcome to 2025, where change isn't just constant—it's accelerating. For investors, success means surfing these transformative waves, not merely weathering them.

### **Climate: From Concern to Crisis**

2024 broke all temperature records (again), making it the hottest year in 125,000 years. Yet humanity responded by... burning more fossil fuels. It's like drinking more coffee to cure insomnia. And yet, the picture is not monolithic, 2025 and beyond will remain dynamic to say the least.

### What's coming:

- Significant acceleration of climate adaptation spending
- Policy divergence between regions. While Europe and parts of Asia step on the green accelerator, others are pumping the brakes. Invest accordingly.
- Insurance industry is fundamentally reassessing risk.
   After record disaster payouts, they're rethinking how they assess risk. This will ripple through real estate, municipal bonds, corporate planning, and more.



### **China's Green Domination: The Dragon Goes Electric**

Energy isn't just a commodity anymore—it's technology. And technology gets cheaper and better over time. China has spotted this trend and is running with it like an Olympic sprinter.

### The scorecard:

- China's renewable energy dominance: 80% of global solar panels, 70% of battery production, and a rapidly growing EV industry. It's less of a race and more of a "everyone else is hoping for silver."
- Solar expansion unstoppable: Global capacity could double by 2027, with China at the center despite trade tensions.
- Battery breakthroughs incoming: Costs dropping below \$70/kWh by 2027, with innovations beyond lithium-ion hitting the market.
- Grid modernization is desperately needed: A multi-trillion-dollar opportunity as our electrical systems struggle to keep up with renewables.

### **Global Trade: Tensions Boiling**

Trump's return has intensified trade conflicts. China's stimulus response makes the New Deal investments and reforms to exit the Great Depression look modest.

#### Watch for:

- Economic restructuring beyond short-term tariff reactions
- Market volatility amid continued technological progress
- Selective decoupling in critical sectors
- Capital flows shifting toward Asian innovation centers

# Macroeconomic Commentary continued

### **Fiscal Reality: Creative Debt Management**

U.S. Federal government debt has reached the level where interest payments are now the largest single budget line item yet plans to address this are unclear.

#### The new normal:

- Germany's €1.2T spending shift signals European policy transformation
- Innovation in debt management, rather than reduction
- Healthcare demands are intensifying with aging populations
- Potential productivity boost from AI, renewables, and automation

### **Tech Revolution: AI Enters Physical World**

Al is moving beyond chatbots to transform systems and supercharge human capabilities.

### **Coming attractions:**

- Innovation is flowing across borders despite politics
- Al integration into robotics and infrastructure
- Economic transformation through convergence of renewables, automation, and AI
- Job market evolution is creating new categories of work

### **Biotech: Biology Becomes Technology**

Biotechnology's "iPhone moment" is creating cross-sector disruption.

### The biological revolution:

- Personalized medicine is becoming standard
- Bio-based manufacturing processes are disrupting traditional industries
- Novel biological materials are creating new markets

### **Investment Playbook**

Smart investors will focus on signals, not noise.

#### **Action plan:**

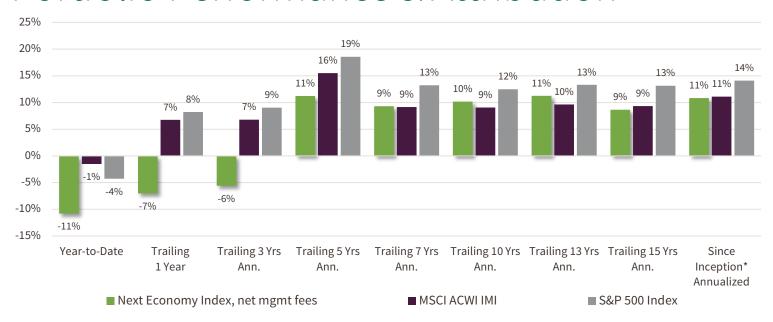
- Look beyond borders to diverse innovation centers
- Focus on fundamental technological transformations
- Bet on climate adaptation infrastructure
- Follow bioeconomy leaders
- Embrace supply chain innovation

### **Conclusion**

We're at an economic inflection point. Headlines trumpet geopolitical drama, but the real story is deeper transformation. China's technology leadership and Europe's fiscal awakening suggest a multipolar future. Climate challenges are driving unprecedented innovation, while technological convergence creates immense opportunities.

Success depends on identifying emerging leaders regardless of nationality and focusing on long-term value creation. The waves of change are big, but rideable—with the right investment framework.

### Portfolio Performance & Attribution



For the first three months of 2025, Green Alpha's Next Economy Index returned -10.79% net of management fees, versus its benchmark, the MSCI All Country World Investable Market Index (MSCI ACWI IMI), which returned -1.50%.

The sectors detracting the most from the strategy's returns were Technology and Health Care.

- Within the Technology sector, the industries detracting the most were Semiconductors, Tech Hardware, and Software.
   Loses from those industries were partially offset by gains in IT Services. This sector-specific underperformance comes amid the ongoing transition of AI from purely digital applications into physical systems, creating short-term volatility in technology valuations as markets reassess growth trajectories.
- In Health Care, losses were primarily driven by Medical Equipment and Devices, Biotech and Health Care Services industries. Despite the broader "biological revolution" highlighted in our macroeconomic outlook, near-term pressure on innovative healthcare companies intensified with heightened fiscal concerns around healthcare expenditures, and of course broader concerns about inflation and economic sluggishness for now creating less appetite for more innovative enterprises.

The strategy's best performing sectors were Communications and Utilities.

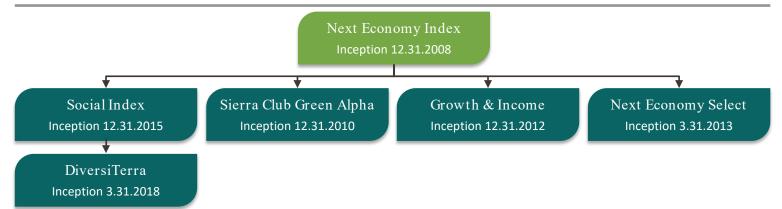
- The portfolio's exposure to Communications is limited to the Wireless Telecomm industry, which performed well during the quarter, benefiting from the continued digitalization trend and resulting increasing data demands.
- Utilities experienced small gains from holdings in Water and Electric Utilities industries. This reflects the beginning stages of the multi-trillion-dollar grid modernization opportunity identified in our macroeconomic outlook, as electrical systems adapt to accommodate increasing renewable energy integration.

While Q1 2025 presented challenges, short-term performance must be viewed through the lens of the "Great Transformation" outlined in our macroeconomic commentary. We are experiencing an economic inflection point characterized by climate adaptation demands, technological convergence, and geopolitical realignments.

The short-term market volatility reflects uncertainty around these transformative trends, particularly as trade tensions intensify and policy responses diverge globally. However, our positioning across renewable energy infrastructure, biotechnology innovation, and next-generation technologies remains aligned with long-term trends firmly in place.

\*Portfolio Inception: December 31, 2008. 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.





- Largest Next Economy basket the most diversified Green Alpha portfolio by number of stocks; all stocks that pass Green Alpha's top-down and bottom-up investment processes enter the Index
- 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	Next Economy Index	Benchmark: MSCI ACWI IMI (SPGM)	Social Index	Next Economy Select	Growth & Income	Sierra Club Green Alpha	DiversiTerra
# of Securities	150	2,807	113	58	36	49	53
Active Share vs MSCI ACWI IMI	93%	-	94%	98%	97%	98%	96%
Active Share vs Next Economy Index	-	-	35%	68%	72%	69%	64%
Sales Growth, Trailing 3-Yr	17%	14%	17%	13%	7%	15%	10%
P/E, Current	26.9	20.0	25.9	27.8	26.9	28.7	27.5
P/E, 1-Year Forward	21.0	17.2	21.0	19.5	14.6	15.0	18.4
Price/Sales	1.9	1.9	2.1	1.5	1.1	0.8	1.9
Price/Book	2.2	2.8	2.1	2.2	1.4	1.5	1.8
LT Debt/Equity	110%	77%	132%	164%	172%	116%	107%
Current Ratio	3.2	2.3	3.2	4.3	3.4	3.8	3.9
Dividend Yield	1.17%	1.96%	1.21%	2.12%	4.41%	2.50%	1.75%
Market Cap, Wtd Avg (\$B)	\$121.59	\$546.23	\$95.02	\$121.53	\$114.18	\$91.90	\$91.50
Market Cap, Median (\$B)	\$7.23	\$2.74	\$10.63	\$5.63	\$14.89	\$6.10	\$10.44
Turnover, Trailing 2-Yr Avg	24%	Not Available	35%	11%	12%	15%	23%
Beta, Trailing 3-Yrs	1.41	1.00	1.52	1.51	1.33	1.45	1.45
U.SDomiciled Companies	77%	61%	88%	68%	69%	69%	83%
% Revenue Derived in U.S.	51%	45%	63%	52%	53%	53%	62%

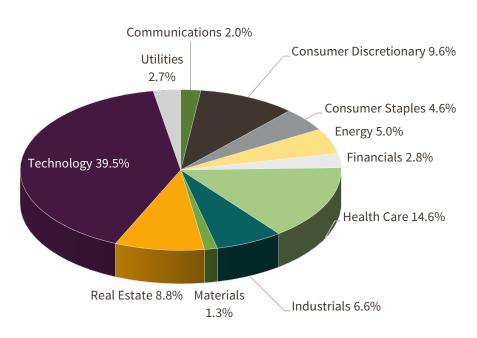
Characteristics are sourced from FactSet, based on a representative account and include cash. Please see additional disclosures on last page.



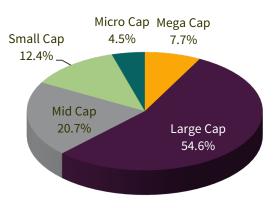
## Portfolio Allocations

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

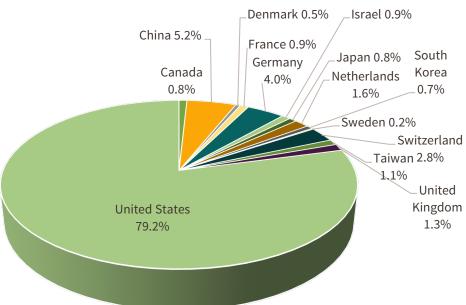
### **Sectors**



### **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 represents 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 November 30, 2021, the Next Economy Index 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. Beginning May 31, 2023, composite membership also includes a minimum account size of \$75,000. The Next Economy Index composite performance results reflect actual performance for a composite of discretionary client accounts meeting custodian and minimum account size requirements. Net of actual management fees and transaction costs. Some assets managed in the Next Economy Index 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 Investments. The Next Economy Index 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 November 30, 2021, Next Economy Index performance results reflected the actual performance of a representative account, net of actual management fees and transaction costs. Assets managed in the Next Economy Index strategy representative account received a reduced fee from the standard fee schedule. Next Economy Index representative account performance results did not reflect the reinvestment of dividends and interest. Please contact Green Alpha for information about the representative account selection process.
- 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 <a href="mailto:info@greenalphaadvisors.com">info@greenalphaadvisors.com</a>. 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) is a free float-adjusted market capitalization-weighted index that is designed to measure the combined equity market performance of developed and emerging markets. The Index covers approximately 99% of the global equity investment opportunity set. The MSCI ACWI IMI figures do not reflect any fees, expenses, or taxes. 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.
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  investment strategies.