



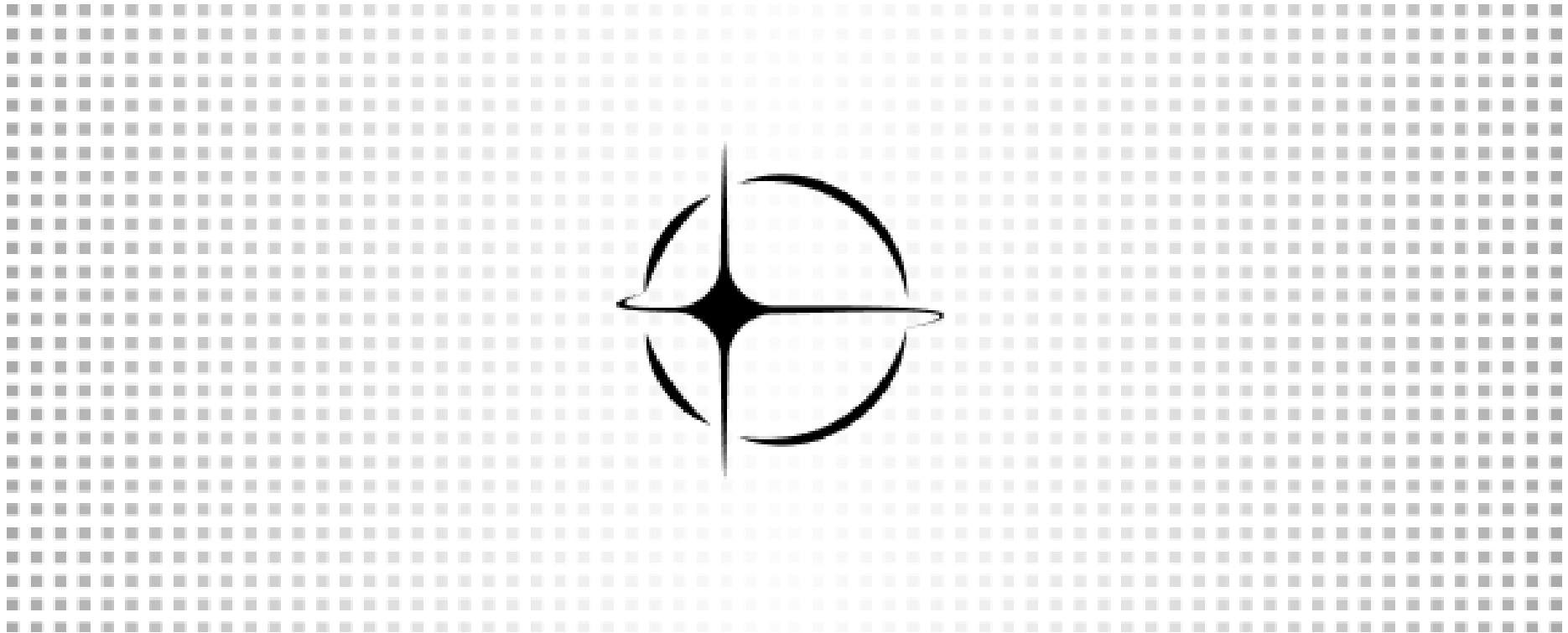
AlphaGe 

GeoSense

Making sense of the world through the lens of geography

June 2024
Volume 1, Issue 4

The GeoSense Market Tracking Index



GeoSense's Russell 2000 Market Tracking Index

Once again, the GeoSense IWM tracking index verified by projecting a lower month-over-month ending value in May. Our tracker anticipated an 11% month over month decrease, while the IWM actual closed down 7.5% (the month closed at \$196 per share). The GeoSense June index forecast is looking at a rebound with an anticipated close in the 210-212 range (mid-month IWM is trading at 201).

Our model feature selection continues to weight commodity, weather and macroeconomic variables more heavily than other seasonal or discretionary data points. The metals complex (including copper, zinc, gold and silver) remain relevant principal components which are driving performance, in addition to oil, the USD-RMB exchange rate, and US employment. The index has also selected weather and climate factors related to the now well-publicized La Niña transition as key determinants. These climate factors could become more prominent market drivers as we progress through the Northern Hemisphere summer and exerting influence on oil and natural gas prices.

As we have discussed previously, the training data for the AlphaGeo index includes a combination of macroeconomic, climate and socioeconomic variables, and the index we have created selects predominantly data points with p-values below 0.05 and a mean absolute percentage error which is below 5%.

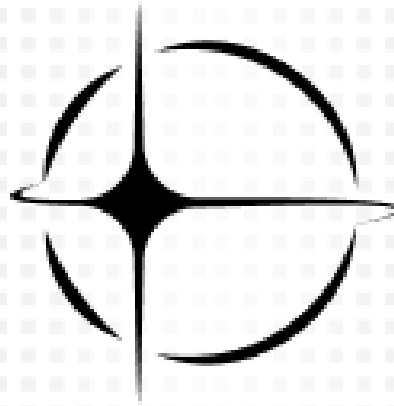
Please reach out to AlphaGeo to discuss our GeoSense market intelligence reports and other data analytics and products.

GEOSENSE RUSSELL2000 TRACKING INDEX*
(*BLACKROCK ISHARES R2K ETF - IWM)

JAN 2011 - JUN 2024

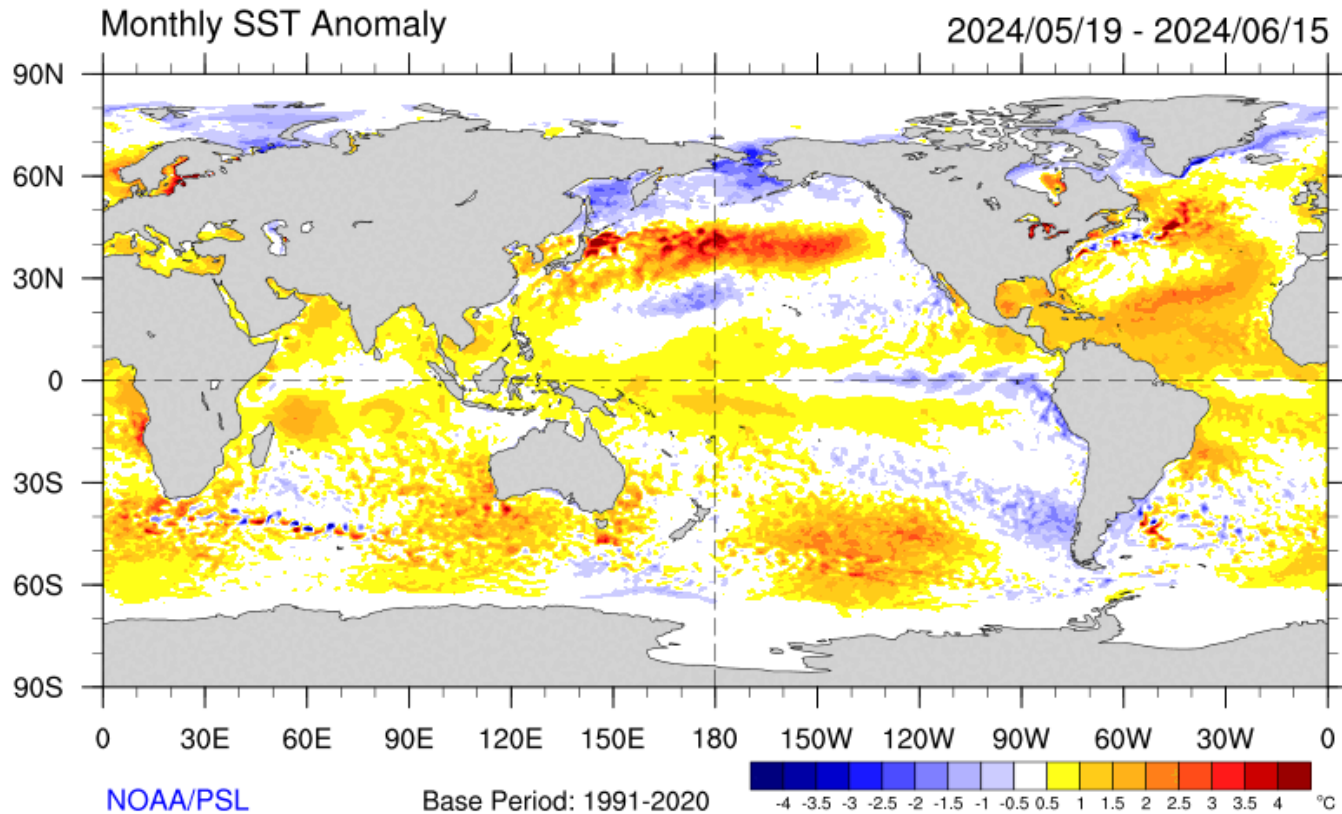


The GeoSense Commodity Discussion



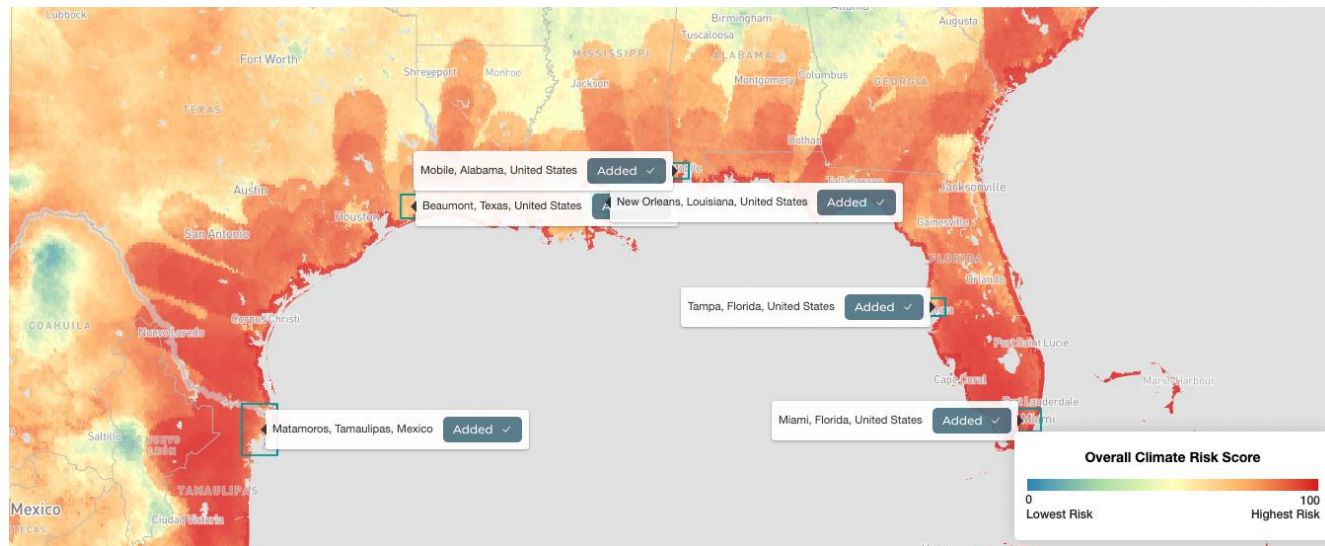
Geoeconomics and ENSO

The El Niño-Southern Oscillation (ENSO) is now in a neutral phase. Last week the National Oceanic Atmospheric Administration (NOAA) officially declared the El Niño pattern, which has been guiding the global weather patterns for several months, to be over and that the current neutral phase conditions will lead into a La Niña event which will materialize as the dominant driver later this year, into 2025. This is not news as the data leading to the declaration has been readily available, but the 'official' designation of this transition leads markets to prepare for a regime shift.



Unlike El Niño, where elevated Pacific Sea Surface Temperature (SST) anomalies lead to additional evaporative moisture becoming available to key agriculture growing states in the US, La Niña conditions tend to be associated with a higher risk for drought. Unlike La Niña influenced Pacific SSTs coupled with a slight northward shift in the jet stream mean less evaporative moisture entering the US, and the available precipitation will show a tendency to move to northern states. The southern/southeastern states have an elevated risk for a dry pattern to start to materialize in late summer. There are potential negative agriculture impacts in key agricultural production regions for cotton, sugarcane, some varieties of wheat and groundnuts. Fortunately, at the moment, the southeast states are in decent shape; we should be most concerned right now about west Texas through southern California. Further, as the map to the left depicts, SSTs in the Atlantic Basin increase, resulting in what is expected to be a very active Atlantic hurricane season (which officially kicked off 01-June). Coincidentally, the first named storm of the Atlantic season, Alberto, has been declared at the time of this writing on 19-June.

Hurricane Goeconomics



The start of the 2024 Atlantic Hurricane season naturally brings speculation around its impact on commodity supply and price, primarily natural gas. However, it is also appropriate to broaden the aperture beyond short-term acute risks to look at longer-term impacts on low-lying assets and their valuations.

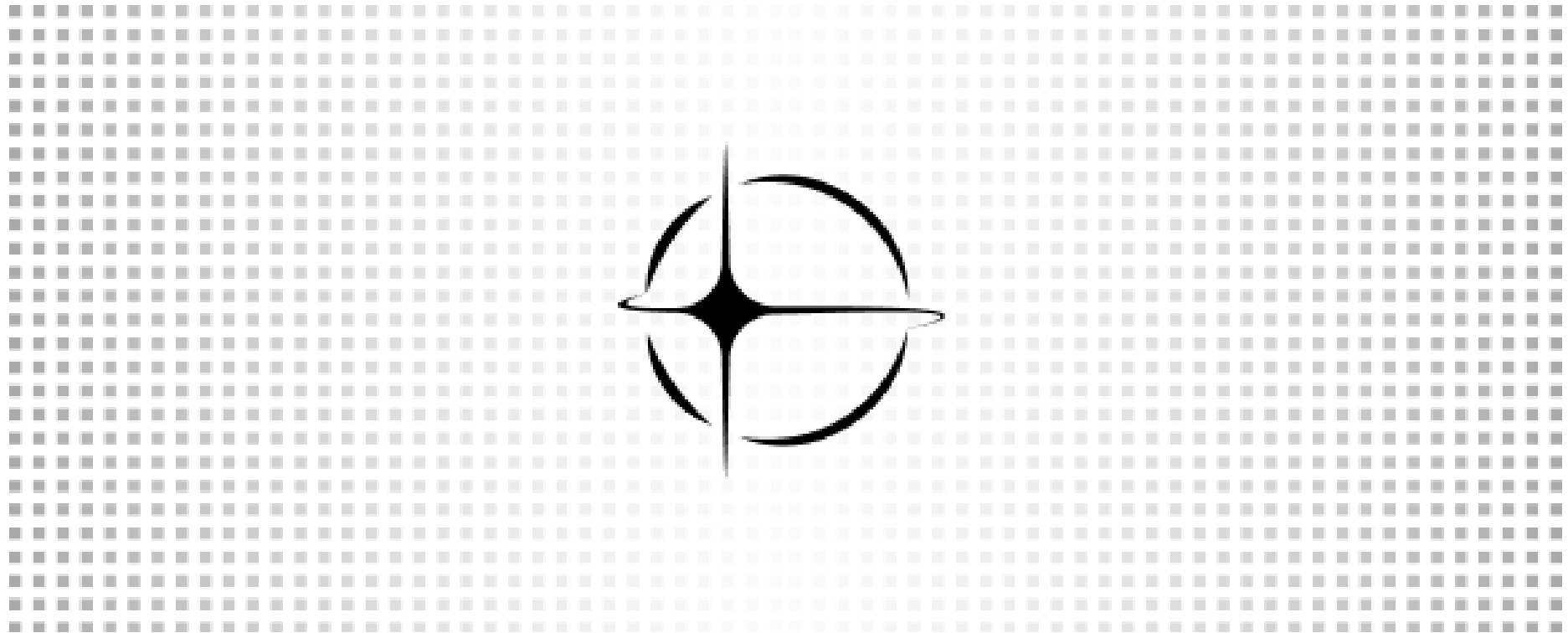
The table below shows the anticipated changes in location economic performance for selected cities with high physical risk exposure. Even under a best-case emissions scenario [Shared Socioeconomic Pathway (SSP) 2-4.5], inland and coastal flooding impacts are projected to severely impact asset values in the years ahead, raising serious questions about stranded or obsolete assets as climate physical risk increases.

High Performance
 Medium Performance
 Low Performance

% #

Indicators	Beaumont, Texas ...	New Orleans, Lo ...	Tampa, Florida, ...	Miami, Florida, ...	Mobile, Alabama ...	Matamoros, Tama ...
Heat Stress	-1.08	-1.01	-1.13	-1.19	-1.02	-1.07
Drought	-0.08	-0.05	-0.05	-0.06	-0.06	-0.12
Hurricane Wind	-0.45	-0.7	-0.43	-1.18	-0.65	-0.56
Inland Flooding	-0.89	-0.81	-0.83	-0.87	-0.89	-1.05
Coastal Flooding	-0.04	-0.76	-0.36	-0.16	-0.31	-0.17
Wildfire	-0.16	-0.02	-0.04	-0.09	-0.09	-0.19

The GeoSense Industrial Renaissance Tracker (IRT)

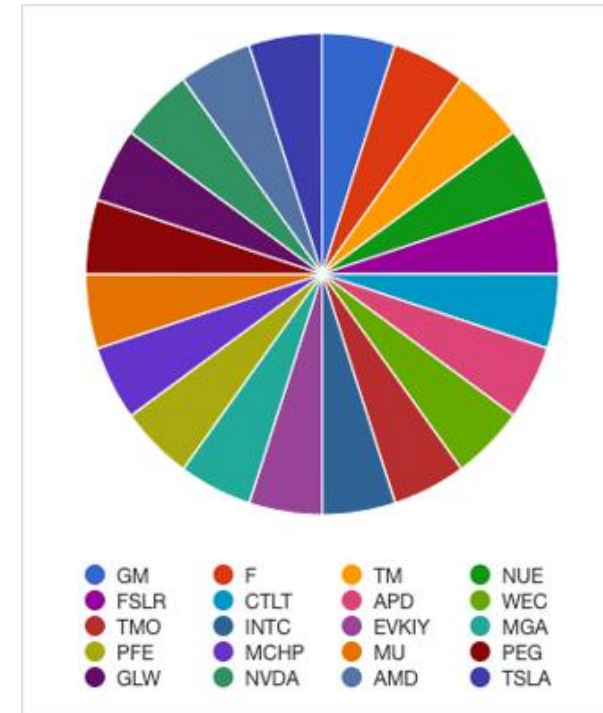


The Industrial Renaissance Tracker (IRT)

AlphaGeo is driving the discussion around the Net Zero transition, which we feel will transform not just the energy sector, but all sectors of the global economy. Where these market transformations are taking place is as important as the assets themselves. Our proprietary Industrial Renaissance Tracker (IRT) guides investors by:

- (a) following announcements and capital flows resulting from legislation or innovation tied to the energy transition,
- (b) identifying the locations that are poised to benefit and appreciate from these emerging economic opportunities,
- (c) correlating these geographies to AlphaGeo's proprietary spatial index of risk and resilience indicators, and
- (d) mapping assets and companies that are most likely to be the winners from this confluence of sustainability drivers.

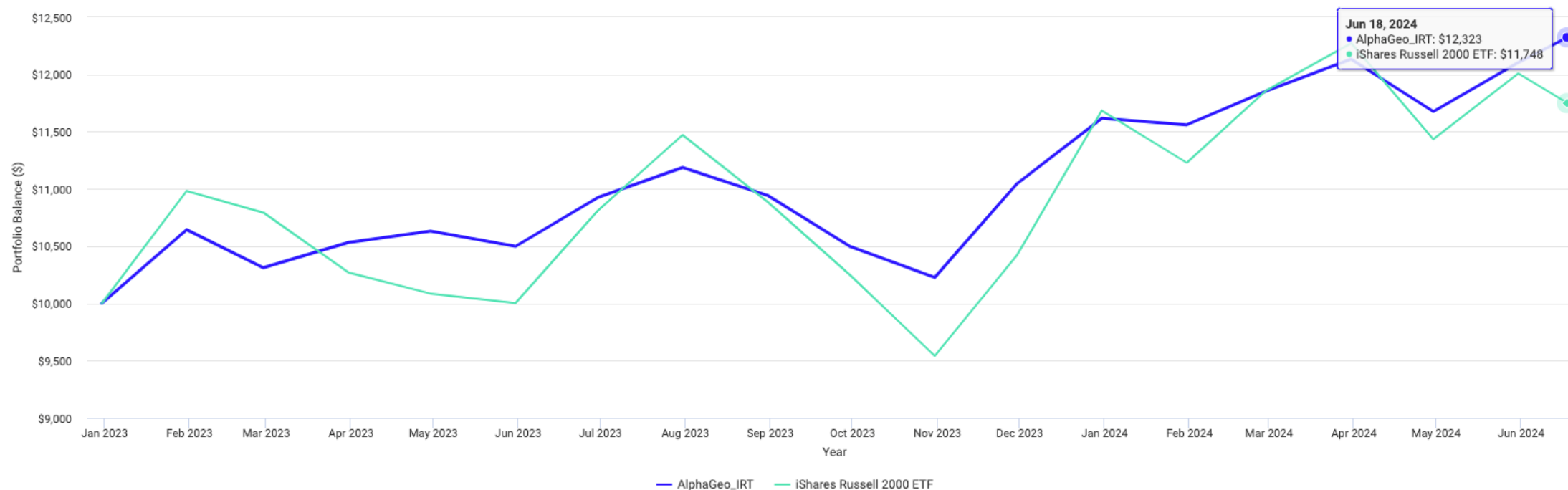
The IRT portfolio is a "hypothetical ETF" presently consisting of 20 public companies, equally weighted, that we compare to the IWM benchmark. Starting next month, we will begin evaluating the index as if it were actively managed, assigning weighting schemes and including rebalancing strategies with attribution factors. The figures on the following slides show 1+ year performance metrics and portfolio characteristics.



The Industrial Renaissance Tracker (IRT)

Hypothetical Portfolio 17-month performance vs benchmark

Portfolio Growth



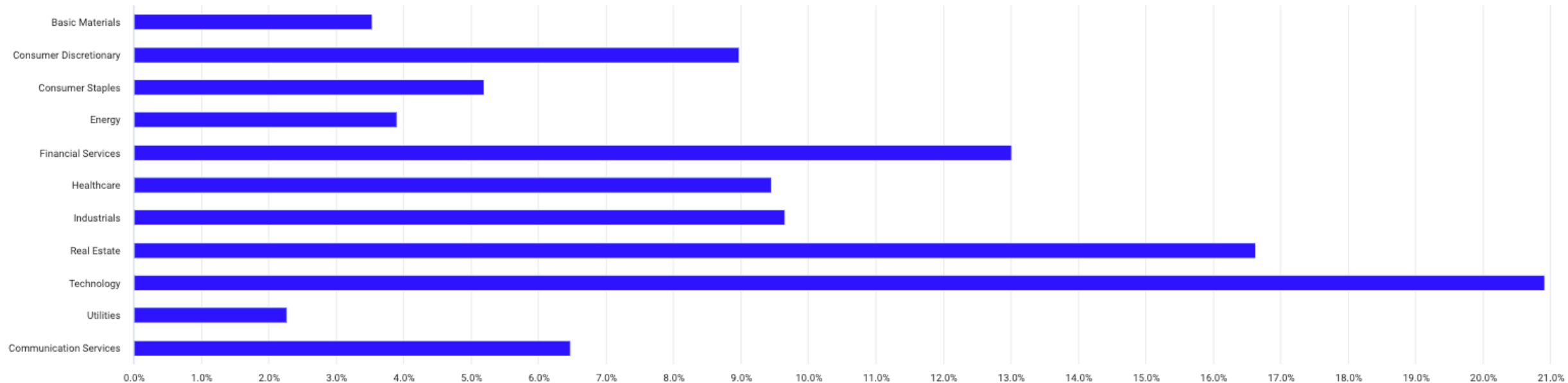
Trailing Returns

Name	Total Return			Annualized Return
	3 Month	Year to Last Month	1 year	Full
AlphaGeo_IRT	2.09%	4.19%	15.27%	14.42%
iShares Russell 2000 ETF	1.25%	2.78%	20.05%	13.79%

Trailing returns are as of last calendar month ending May 2024

The Industrial Renaissance Tracker (IRT)

Equity Sectors



One key strength of the Industrial Renaissance Tracker (IRT) is that while it is tied to the thematic driver of US legislation supporting the energy transition, it is inherently sector agnostic. As the graphic above shows, the constituent holdings span 11 sectors, and no one sector represents more than 21% of the portfolio.

It should also be noted that unlike many thematic ETF products, we do not use market cap as a limitation or reason to exclude certain companies or sectors. While large cap names represent two-thirds of the holdings, we include mid and small caps as well since the energy transition tailwind should provide investable opportunities for companies and sectors that are not defined by size or sector thresholds.

Our Team



Dr Parag Khanna
Founder & CEO

GEOGRAPHY and MACROECONOMICS

Scenario-planning and strategy advisor to major financial institutions and governments. Bestselling author of *Connectography* and *Financial Times* Book of the Year *MOVE* on human geography and climate migration. Young Global Leader of the World Economic Forum. PhD from the London School of Economics.



Chris Marlin
Chairman of the Board

REAL ESTATE and GOVERNANCE

Formerly Founding President of Lennar International (NYSE:LEN) and responsible for over \$12b in real estate transactions; significant cross-border real estate fundraising/transaction track record. Former global head of strategy/business ops for CNN Worldwide. Director, The United States Atlantic Council. Former World Economic Forum Future Council on Cities; assisted Forum in founding Centre for Urban Transformation.



Dr. Michael Ferrari
Chief Scientific & Chief Investment Officer

GEOPHYSICS and SPATIAL FINANCE

More than 20 years leadership in climate, data science and investment management. Formerly the Chief Science Officer and Chief Data Scientist at hedge fund Engine No. 1, portfolio investment strategist at Point72, science advisor to the MIT Media Lab, and Head of AI & Data Science at IBM/The Weather Channel and Syngenta.



Abraham Wu
Chief Technology Officer

DATA SCIENCE and CLIMATE MODELING

PhD Researcher at the Singapore-ETH Center Future Cities Lab. Expert in urban data mining and analytics with academic publications in scientific journals on geospatial data and generative AI.



Mark Langan
Chief Operating Officer

TECH and PRODUCT MANAGEMENT

Former Vice President of Hedge Fund Research and PMO to the Chief Data Office at Preqin, a leading data platform for alternative investors, with expertise in SaaS, client relations, process automation, program management, data management and compliance.

Our global team of 15 seasoned professionals spans the US and Asia – and we plan to hire more data scientists, product managers and sales executives in the months ahead.

Disclaimers and Disclosures

This material, which may be considered advertising, is for general information purposes only and is not intended to provide legal, tax, accounting, investment, financial or other professional advice on any matter. Past performance is not indicative of future performance. This material has been provided for information purposes only to professionals and institutions. The provision of this material and/or reference to specific assets, commodities, funds, securities, sectors, or markets does not constitute investment advice, or a recommendation to buy or sell any security, or an offer of any regulated financial activity. Investors must consider the investment risks, objectives, investment horizon and associated investment parameters of any investment carefully before investing. Opinions, estimates, forecasts, projections and statements of financial and/or market trends are based on market conditions at the date of the publication, constitute the judgment of the authors, and are subject to change. There can be no guarantee that information contained as part of a market outlook will be met. Investing in publicly traded securities, assets and/or funds involves risk, including the possible loss of principal. Shares of any asset, exchange-traded fund (ETF) or other investment vehicle are bought and sold at market price may trade at a discount. Brokerage commissions will reduce returns. Hypothetical portfolios are constructed with monthly rebalancing and reinvestment of dividend parameters. This material may not be comprehensive or up to date and there is no undertaking as to the accuracy, timeliness, completeness or fitness for a particular purpose of information given. AlphaGeo (and related entities) will not be responsible for updating any information contained within this material and opinions and information contained herein are subject to change without notice. AlphaGeo, Climate Alpha, and related entities, assume no direct or consequential liability for any errors in or reliance upon this material. We have not and do not intend to provide this information to or otherwise solicit individual (a/k/a retail) investors. This material does not constitute a recommendation or advice by AlphaGeo, Climate Alpha, or any related entities, of any kind. You should discuss this material with appropriate advisors in the context of your circumstances before acting in any manner on this material or agreeing to use any of the referenced products or services and make your own independent assessment (based on such advice) as to whether the referenced products or services are appropriate or suitable for you.

AlphaGeo

Contact us

Invest in Resilience

www.alphageo.ai

info@alphageo.ai

