

The background of the entire page is a grayscale aerial topographic map. It shows a complex network of rivers and streams, with a prominent, winding river system on the right side. The terrain is depicted with various shades of gray, representing elevation and land features.

# AlphaGe

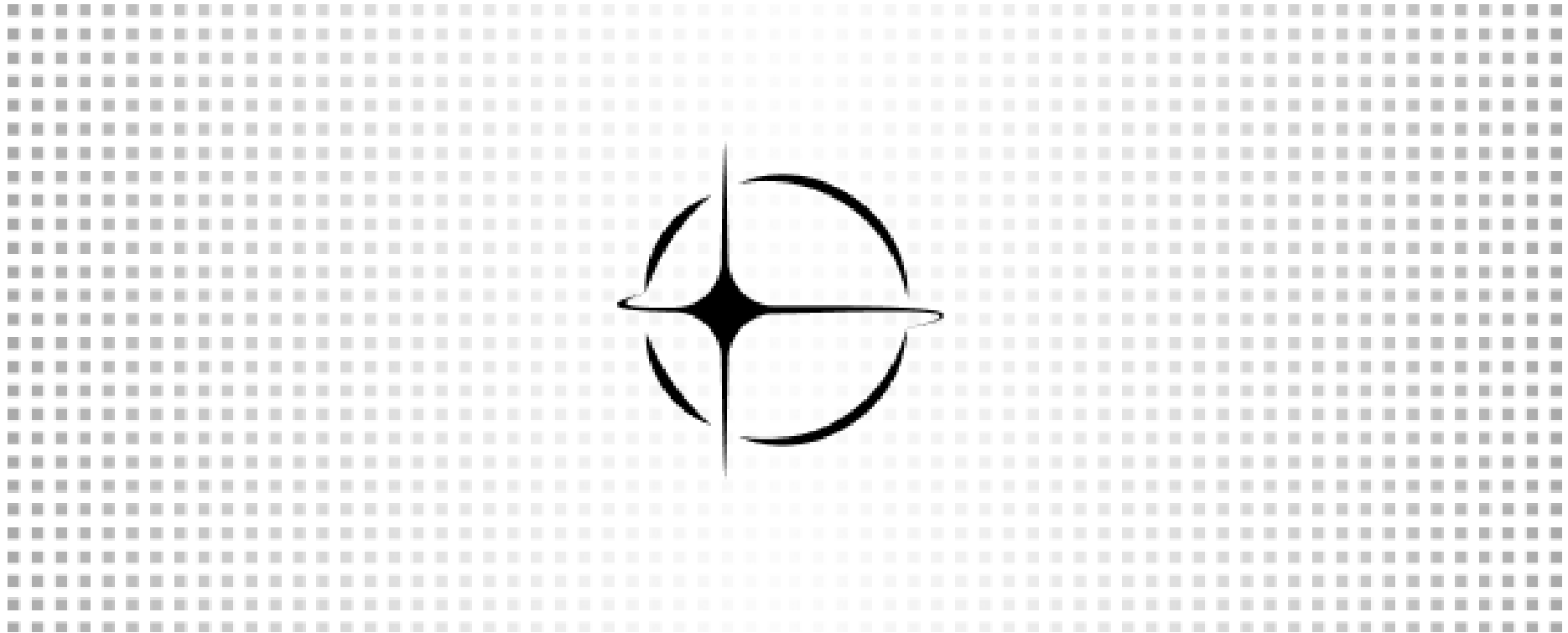
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## GeoSense

*Making sense of the world through the lens of geography*

January 2025  
Volume 2, Issue 1

# GeoSense Market Tracking Index



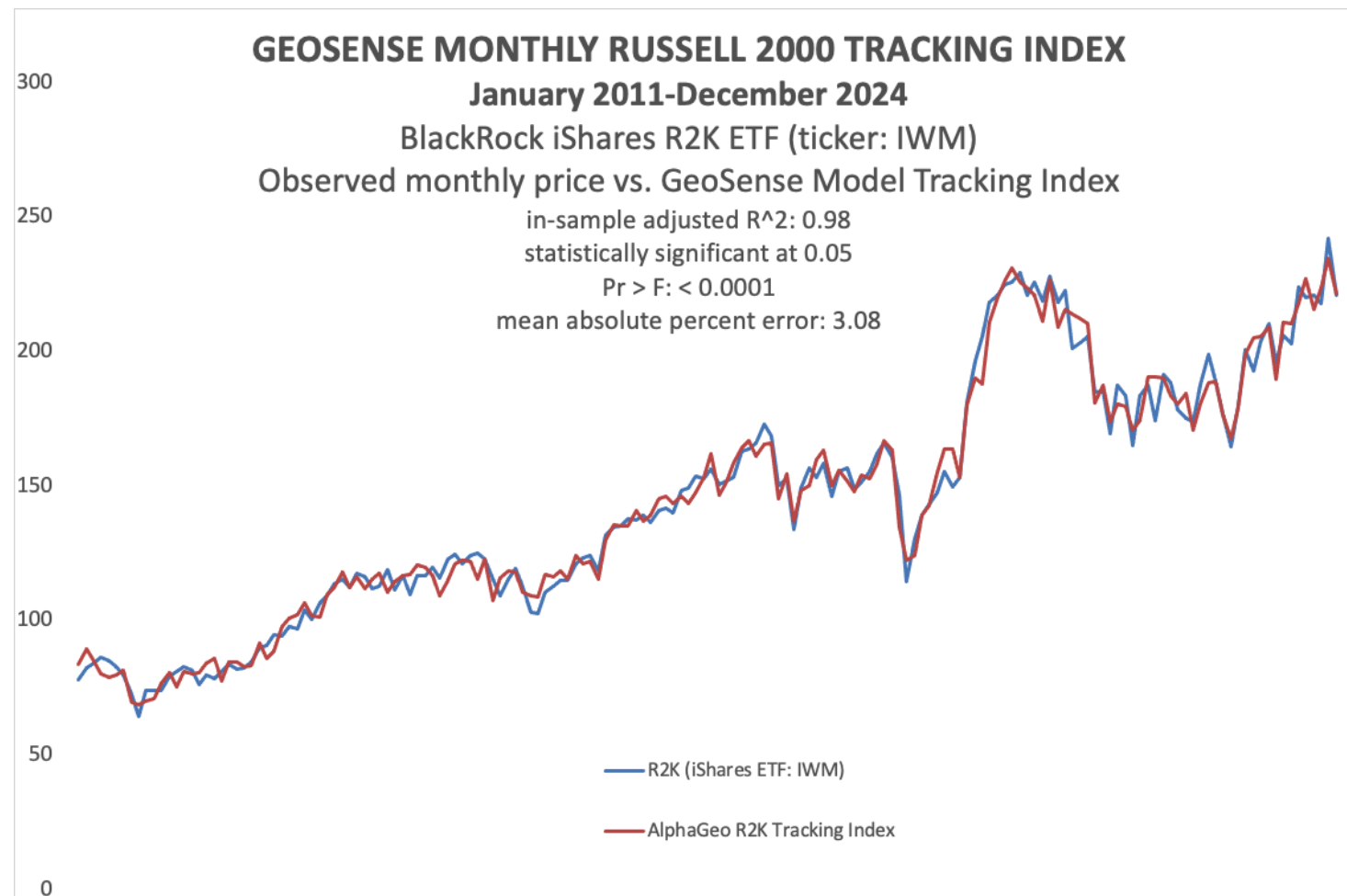
# GeoSense's Russell 2000 Market Tracking Index

2024 ended with a mix of optimism and uncertainty in public markets, but the outlook for the start of the new year, along with the transition to a new US administration, seemed to carry a bullish consensus. The Russell 2000 public market benchmark (IWM) that AlphaGeo tunes our index to continues to exhibit a steady constructive pattern, and early signals from our feature selection process are pointing for this sentiment to continue.

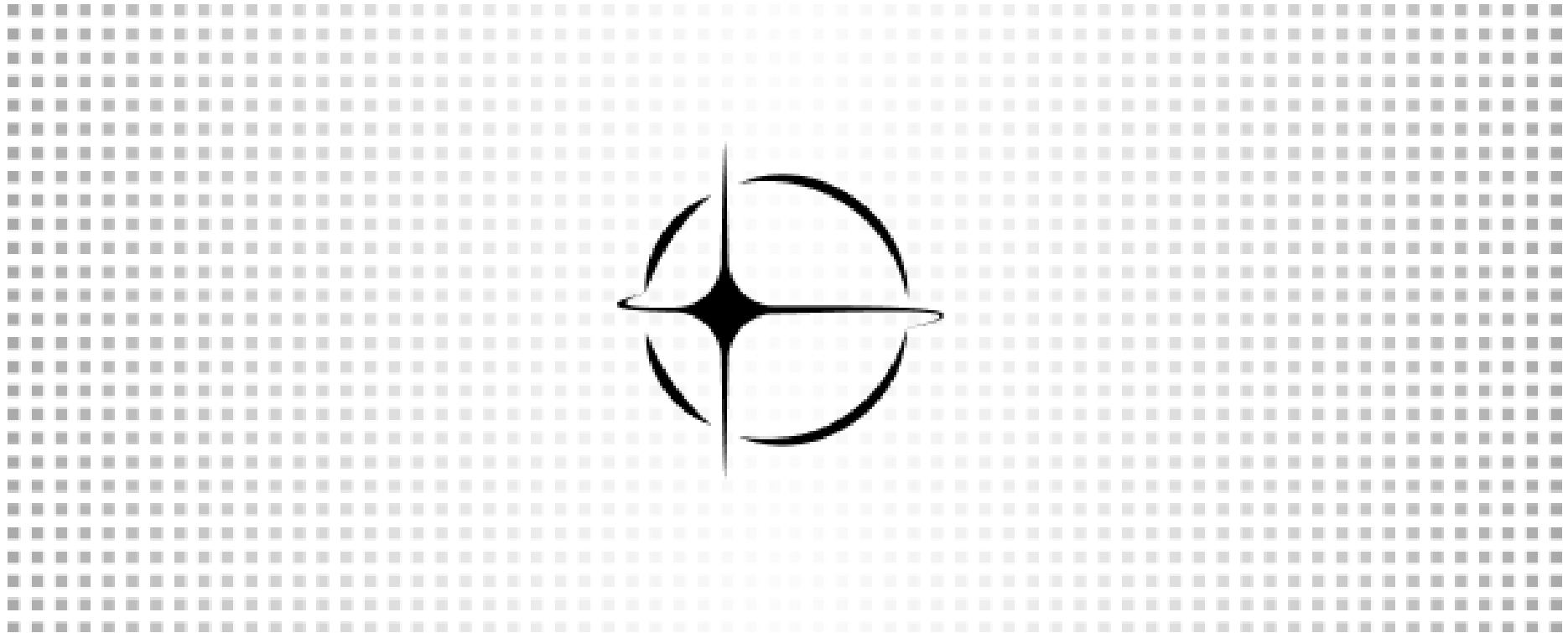
The most recent GeoSense model update has placed more emphasis on the following variables weighed the following parameters more heavily; it is worth noting that there is a broader distribution of variables than we are used to seeing:

- Currency/FX dominated the signal drivers this month; notably USD relationships with:
  - Euro
  - Brazilian Real
  - Chinese Yuan
- Energy inputs (primarily crude; natural gas notably absent)
- The VIX volatility index
- The Metals complex
  - (gold, zinc, silver, copper)
- Agriculture & livestock (cotton, chicken, corn)
- US Housing Starts

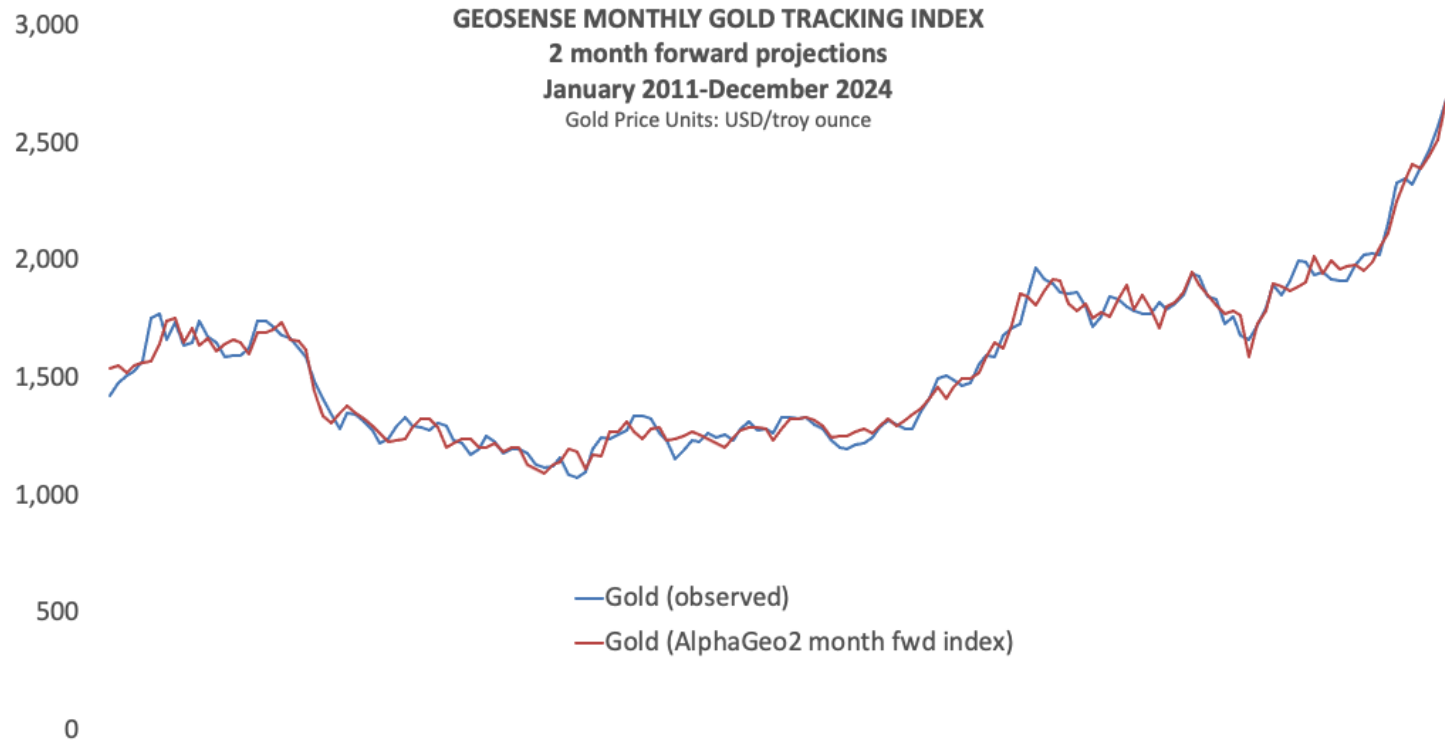
Our tracking index selects predominantly data points with p-values below 0.05; this month the mean absolute percentage error (**MAPE**) is still quite small (**3.08%**) for in-sample ensemble models.



# GeoSense Commodity Discussion



# GeoSense Commodity Discussion: Gold

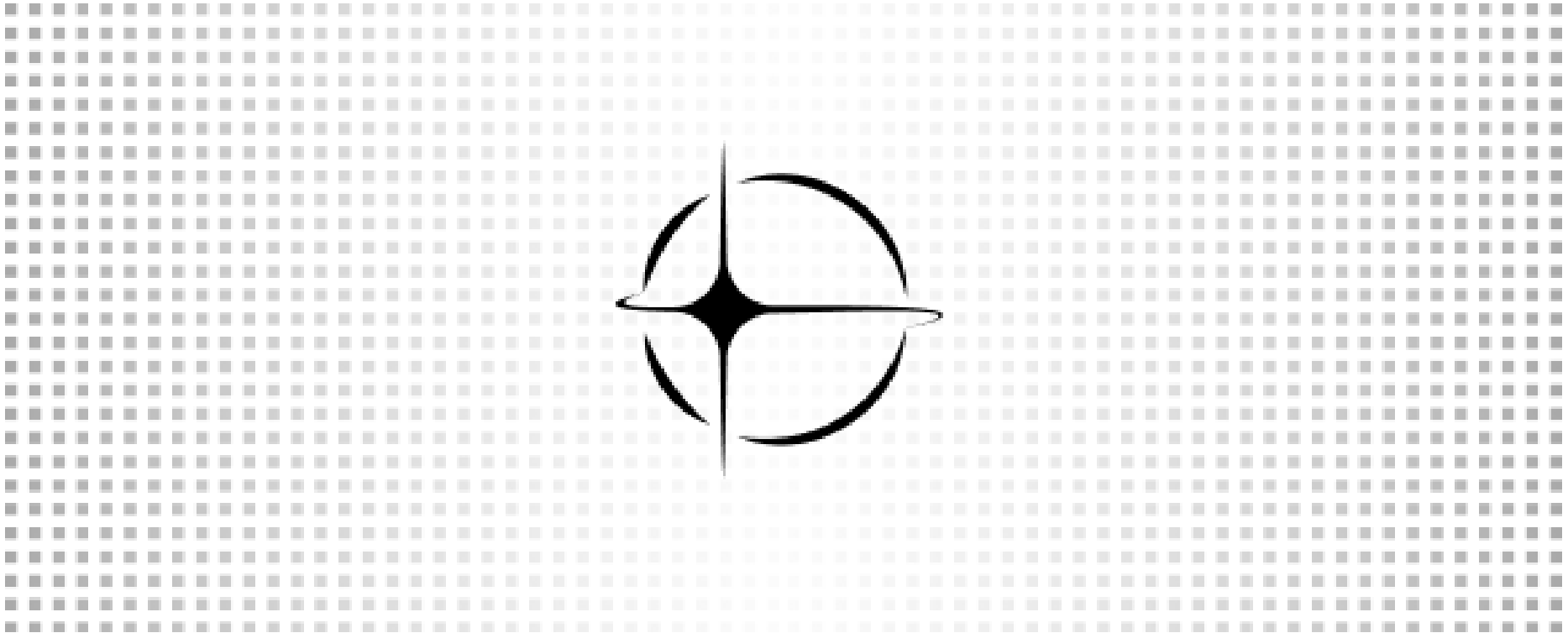


All that glitters...

We are starting the 2025 GeoSense commodity discussions with a closer look at the hedge trade that seems to be capturing more attention by market participants: gold. While open interest at the time of this writing is slightly down from 1-week prior, aggregated open interest is high and we expect this trend to continue in light of current behavior of the VIX.

Again, for our forward market view, we rely on using a multifactorial 'quantamental' approach which in this case projects two months forward as a guide to market sentiment. As the chart above shows, our back test confirms solid performance. Presently, we have displayed output for a model that leverages end of 2024/early 2025 data to project trading ranges for 1Q25, and the outlook as of now is still constructive for gold.

# GeoSense Industrial Renaissance Tracker (IRT)

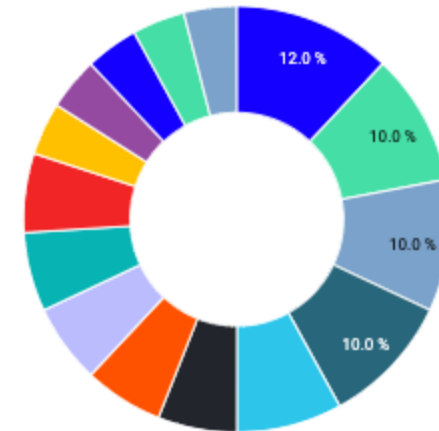


# The Industrial Renaissance Tracker (IRT)

AlphaGeo continues to highlight where and how capital can be opportunistically deployed with the global energy transition as a primary thematic market catalyst. To capitalize on a once in a generation investable opportunity, our proprietary Industrial Renaissance Tracker (IRT) was developed to guide investors by:

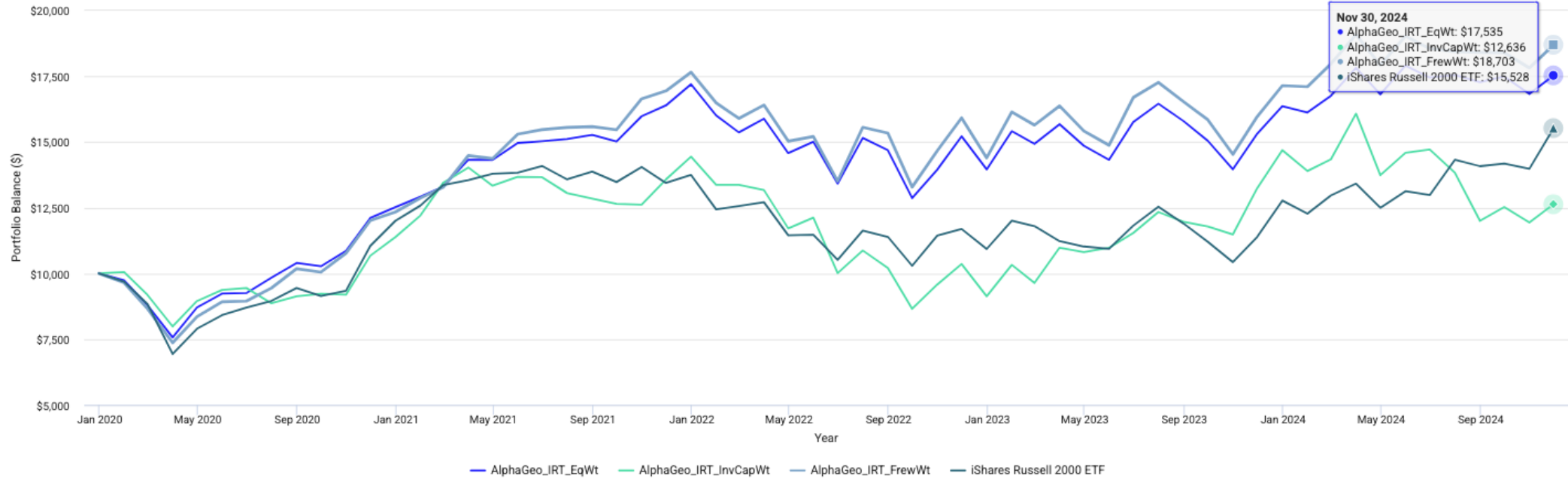
- (a) following announcements and capital flows resulting from legislation or innovation tied to the energy transition,**
- (b) identifying the locations that are poised to benefit and appreciate from these emerging economic opportunities,**
- (c) correlating these geographies to AlphaGeo's proprietary 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.**

Readers can view the IRT portfolio as a "hypothetical ETF" that uses the AlphaGeo investment process to help identify geographically-referenced signals that map to the names that will be leading this transition. Past reports have looked at this portfolio through an equal weighted lens; in July we add a weighting scheme which will allow us to identify and manage assets through an active approach. The new weighting scheme that we are experimenting with is shown below:



# The Industrial Renaissance Tracker (IRT)

## Portfolio Growth



As we do each month in the GEOSENSE Market Intelligence notes, we show how our IRT simulated portfolio continues to perform under the following three weighting schemes:

1. *Equal Weight*
2. *Invested Capital-Weighted*
3. *Frequency-Weighted*

The chart above shows the 3-year performance chart (updated through 30-Nov 2024) under each of the three weighting profiles. Two of the three IRT portfolios continue to outperform the selected benchmark (the BlackRock iShares Russell 2000 ETF) while consistently minimizing risk through lower drawdowns and a low-concentrated asset mix. Taking this further, we note that performance remains favorable when benchmarked against many standard measures of risk adjusted returns.



# 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 seasoned professionals spans the US and Asia – and we plan to hire more data scientists, product managers and sales executives in the months ahead.**

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# AlphaGeo

## Contact us

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