

The Journey of a  
Thousand Miles  
Begins with One  
Step.

– Lao Tzu

# HedgeSPA



Sophisticated Predictive Analytics for Hedge Funds and Institutions

## How We Can Help?

- User-customizable tail-risk scenarios, assembled by a recognized market research team synthesizing consensus views from published economic and market research
- Ability to estimate how asset sponsors have sufficient assets to meet potential liabilities and/or investment goals, at statistical confidence as high as 99.93% as required by some jurisdictions
- Combine upside forward-looking economic with low-probability “black swan” scenarios, and rebalance asset weights to optimize betting ratios
- Reduce portfolio drawdowns by as much as 75% ahead of market storms
- Break down forward-looking scenarios into breakeven or required return for each asset or each asset class, as one way to document and monitor the reasonableness of any investment decision
- Model and include higher-alpha illiquid investments in any multi-asset, multi-frequency portfolio
- Monitor and adjust temporary market exposures with (fundamental or statistical) factors and hedging tools until the next rebalancing cycle

## Who Are We?

HedgeSPA provides a cloud-based investment analytics platform that protects institutional portfolios against severe portfolio drawdowns, makes asset allocations under reasonable market scenarios and helps select the most likely winning assets in recovering markets.

## How We Differentiate?

- Post-Crisis markets are known for tail risk behavior (i.e. once-in-a-decade crashes more frequent than predicted by the normal distribution) with ‘non-normal’ underlying key market factors.
- Typical platforms use Monte Carlo simulations to capture the non-linearity of complex instruments that are no longer in vogue among buy-side investors after the Crisis.
- Monte Carlo simulations rely on the Cholesky decomposition of variance-covariance matrix of key market factors; however, the resulting simulations produce normal markets because non-normality is not captured by the inputs (i.e. the variance-covariance matrix).
- The best ‘fat tail’ simulation technology available today can calibrate to a variance-gamma distribution with pre-defined uniform fat tail distributions, which is helpful to describe certain high-tail-risk markets such as energy, but will not work well for post-Crisis markets where crashes are driven by ‘messy’, non-uniform fat-tail behavior.
- Net Result: Other platforms may produce predictions ‘off’ by as much as an order of magnitude!

## Where We Stand in the Playing Field?

### HedgeSPA

- Native support for multi-asset, multi-frequency portfolios
- Tail risk models supported by architecture
- Factor-based asset selection driven by forward-looking scenarios
- Ready-for-deployment tail risk scenarios
- Virtualized deployment with flexible integration in stages
- Algorithms with real-time performance and battle-tested parameters and heuristics
- Software-as-a-Service advantage with much lower maintenance

### Competitors

- Either make up data or worse delete useful data to enforce uniform data frequency
- At best retrofit tail risk model into legacy architectures
- Asset selection driven by backward-looking market/fundamental data and scenarios
- Tail-risk scenarios only an ‘after-thought’?
- On-site deployment only, hard to show benefits before massive integration
- Overnight batch jobs, rigid parameters
- Require high-maintenance support from headcount-heavy technology teams

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