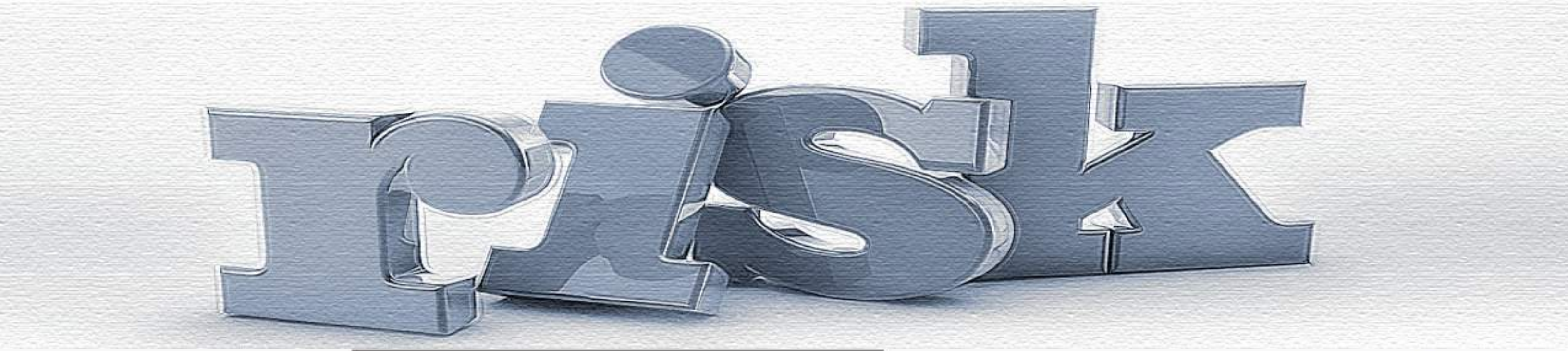

The biggest risk is not taking any risk...

– Mark Zuckerberg

InsurSPA

Sophisticated Predictive Analytics for Insurers & Pensions

How We Can Help?

1. User-customizable tail-risk scenarios, assembled by a recognized market research team synthesizing consensus views from published economic and market research
2. 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
3. Combine upside forward-looking economic with low-probability "black swan" scenarios, and rebalance assets and outputs for optimal performance
4. Reduce drawdowns on holding of assets by as much as 75% ahead of global market storms
5. 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
6. Model and include higher-alpha illiquid investments in any multi-asset, multi-frequency portfolio
7. Monitor and adjust temporary market exposures with (fundamental or statistical) factors and hedging tools until the next rebalancing cycle

Who Are We?

InsurSPA provides a cloud-based investment analytics platform that protects liability-driven portfolios (insurers, pensions, endowments) 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 institutional 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?

InsurSPA

- 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 unifom 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

As Featured By: venturescanner.com

As Mentioned By: Forbes

RED HERRING GLOBAL 100 WINNER

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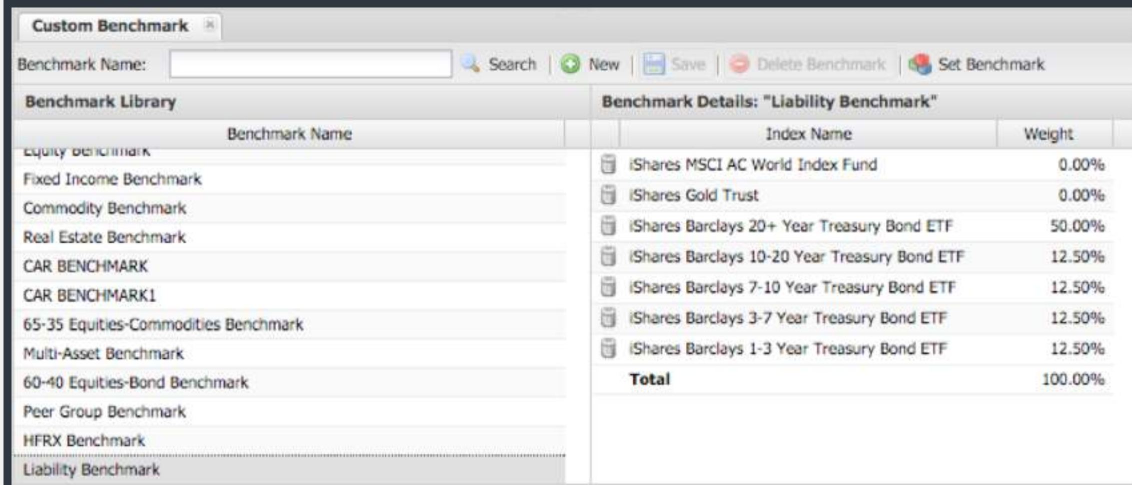
Step by Step Guide

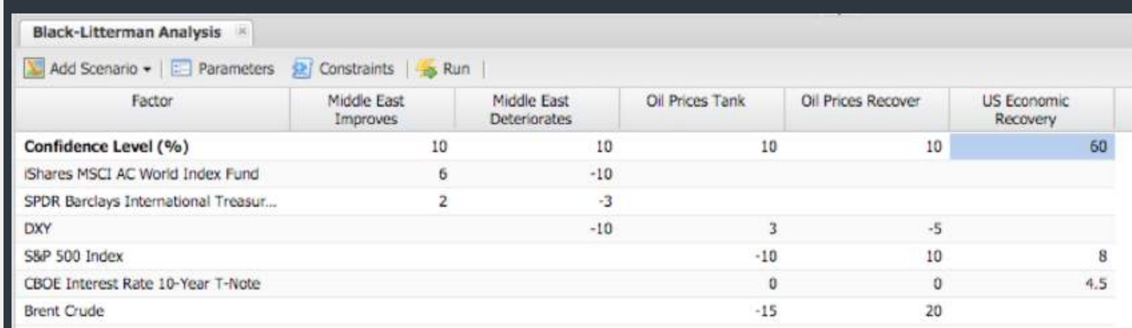
1. Define the year-ahead market scenarios:
   - User-customizable scenarios based on consensus research compiled by our recognized research team, providing detailed justifications
   - Mix of ‘Bullish’ and ‘Bearish’ economic growth scenarios
   - Users do not need to be experts in every region and asset class
   - Assign confidence to each scenario for further analysis

2. Calculate and verify that asset sponsors have sufficient assets to meet potential liabilities:
   - Long insurance assets, short liability benchmark
   - For planning purposes, find the specific scenarios under which your assets no longer leave a sufficient surplus under a pre-defined statistical confidence

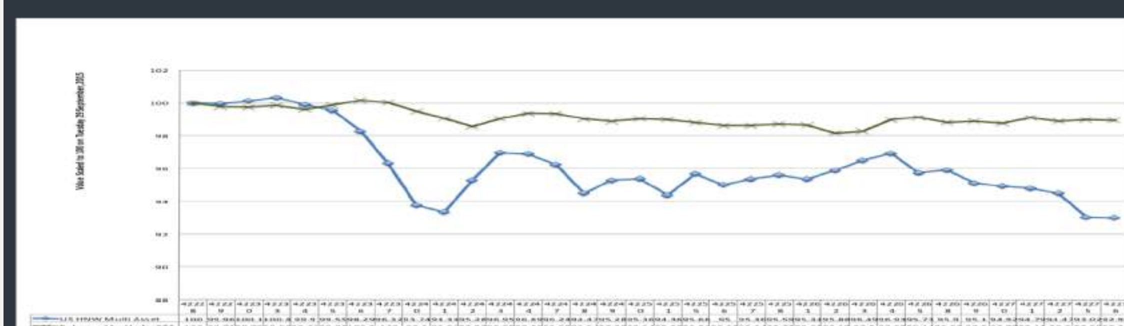


   - Able to specify statistical confidence as high as 99.93%, as required by certain insurance and pension regulators

3. Combine upside forward-looking economic with low-probability “black swan” scenarios, and rebalance asset weights to optimize betting ratios, for example:
   - 60% US Economic Recovery
   - 10% each for other ‘black swan’ scenarios



4. Reduce ‘peak to trough’ drawdowns on assets by as much as 75%
   - In addition, the platform will help insurers and pensions choose the most promising assets in a recovering market to improve betting ratios to 68%, when typical fundamental managers can bet in the 55% to 60% range



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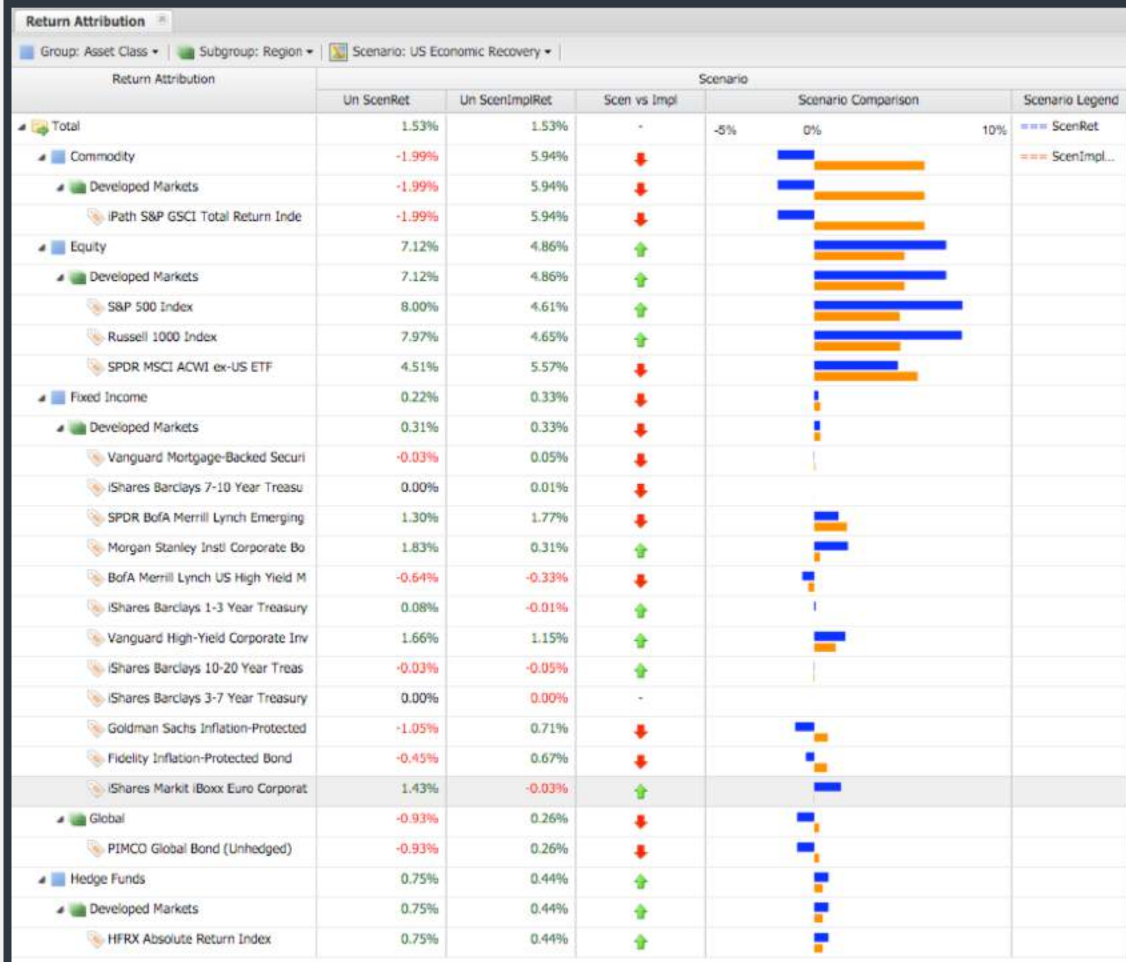
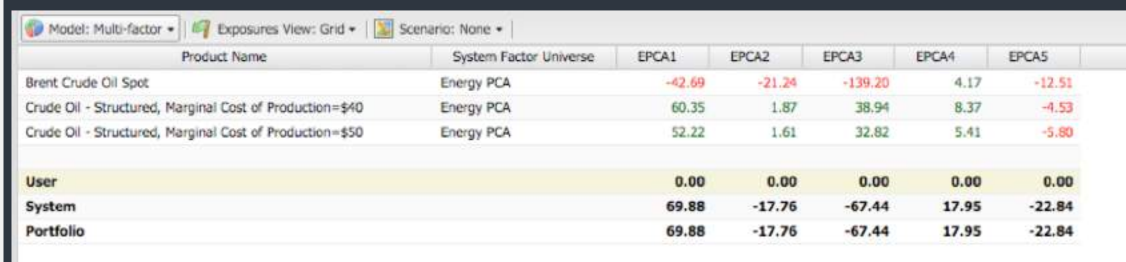
(Continued)

5. Analyze breakeven returns by asset or asset classes:
   - Scenario: US Economic Recovery
   - Recommendations: Increase equities, higher yielding bonds and hedge funds, decrease commodities, Treasury bonds and TIPS



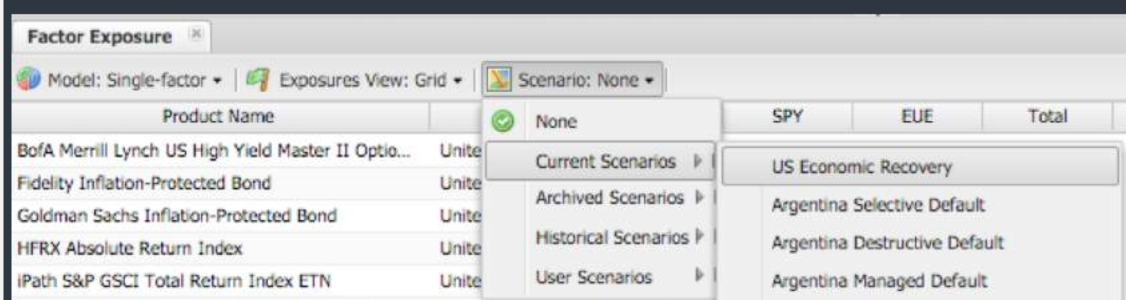
Return Attribution	Un ScenRet	Un ScenImplRet
Total	1.53%	1.53%
Commodity	-1.99%	5.94%
Developed Markets	-1.99%	5.94%
iPath S&P GSCI Total Return Inde	-1.99%	5.94%
Equity	7.12%	4.86%
Developed Markets	7.12%	4.86%
S&P 500 Index	8.00%	4.61%
Russell 1000 Index	7.97%	4.65%
SPDR MSCI ACWI ex-US ETF	4.51%	5.57%
Fixed Income	0.22%	0.33%
Developed Markets	0.31%	0.33%
Vanguard Mortgage-Backed Securi	-0.03%	0.05%
iShares Barclays 7-10 Year Treasu	0.00%	0.01%
SPDR BofA Merrill Lynch Emerging	1.30%	1.77%
Morgan Stanley Instl Corporate Bo	1.83%	0.31%
BofA Merrill Lynch US High Yield M	-0.64%	-0.33%
iShares Barclays 1-3 Year Treasury	0.08%	-0.01%
Vanguard High-Yield Corporate Inv	1.66%	1.15%
iShares Barclays 10-20 Year Treas	-0.03%	-0.05%
iShares Barclays 3-7 Year Treasury	0.00%	0.00%
Goldman Sachs Inflation-Protected	-1.05%	0.71%
Fidelity Inflation-Protected Bond	-0.45%	0.67%
iShares Markit iBoxx Euro Corporat	1.43%	-0.03%
Global	-0.93%	0.26%
PIMCO Global Bond (Unhedged)	-0.93%	0.26%
Hedge Funds	0.75%	0.44%
Developed Markets	0.75%	0.44%
HFRX Absolute Return Index	0.75%	0.44%

6. Model lower-frequency, higher-alpha illiquid assets that are increasingly popular among insurers, pensions and endowments:
   - Oil fields at marginal cost of production at $40 and $50 as examples

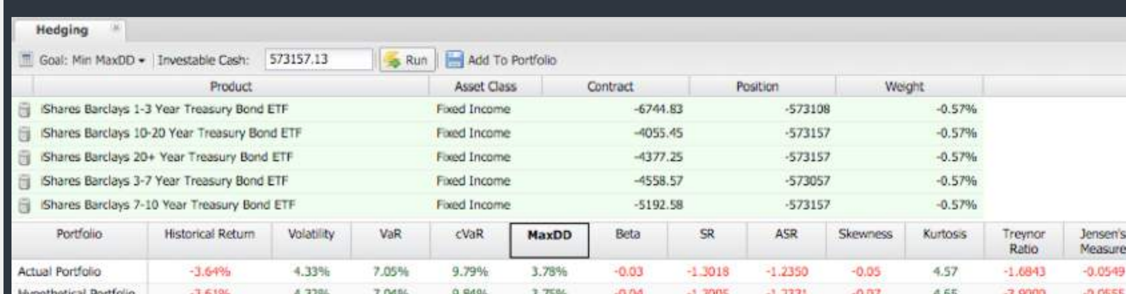


Product Name	System Factor Universe	EPCA1	EPCA2	EPCA3	EPCA4	EPCA5
Brent Crude Oil Spot	Energy PCA	-42.69	-21.24	-139.20	4.17	-12.51
Crude Oil - Structured, Marginal Cost of Production=$40	Energy PCA	60.35	1.87	38.94	8.37	-4.53
Crude Oil - Structured, Marginal Cost of Production=$50	Energy PCA	52.22	1.61	32.82	5.41	-5.80
User		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
System		**69.88**	**-17.76**	**-67.44**	**17.95**	**-22.84**
Portfolio		**69.88**	**-17.76**	**-67.44**	**17.95**	**-22.84**

7. Monitor and adjust temporary market exposures with fundamental or principal component factor models and advanced hedging tools until the next rebalancing cycle
   - View exposures and scenarios by using principal components or fundamental factors



   - Entirely flexible choices of a multi-instrument hedging palette
   - Practitioner-proven, award-nominated hedging algorithms



Product	Asset Class	Contract	Position	Weight
iShares Barclays 1-3 Year Treasury Bond ETF	Fixed Income	-6744.83	-573108	-0.57%
iShares Barclays 10-20 Year Treasury Bond ETF	Fixed Income	-4055.45	-573157	-0.57%
iShares Barclays 20+ Year Treasury Bond ETF	Fixed Income	-4377.25	-573157	-0.57%
iShares Barclays 3-7 Year Treasury Bond ETF	Fixed Income	-4558.57	-573057	-0.57%
iShares Barclays 7-10 Year Treasury Bond ETF	Fixed Income	-5192.58	-573157	-0.57%

Portfolio	Historical Return	Volatility	VaR	cVaR	MaxDD	Beta	SR	ASR	Skewness	Kurtosis	Treynor Ratio	Jensen's Measure
Actual Portfolio	-3.64%	4.33%	7.05%	9.79%	3.78%	-0.03	-1.3018	-1.2350	-0.05	4.57	-1.6843	-0.0549
Hypothetical Portfolio	-3.61%	4.32%	7.04%	9.84%	3.75%	-0.04	-1.3005	-1.2331	-0.07	4.65	-3.9000	-0.0555

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