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ASR SBI Dataset Summary:

- 1,000 Assets
- Covering 177 global markets
- 750,000 datapoints
- 15 years history
- 6% Annualized Alpha

Absolute Strategy Research

Props to Indicators: From **Investment Report** to **Investment Returns**

Executive Summary

- Research providers develop proprietary indicators to inform and communicate research insights
- With the advent of the “alt-data” revolution, these indicators can now be integrated into the investment process through tickerisation, signal extraction and portfolio construction
- **Absolute Strategy Research** is a leading independent research provider that has built a broad range of indicators to inform movements in global capital markets prices
- The indicators combine behavioural & analytical factors to identify risk-on/off for global markets and asset classes
- The dataset is applicable for a broad range of use cases across idea generation, conviction & position sizing, market timing, portfolio constructing and risk management
- **Invisage** is a data analytics platform that helps investors use alternative data to generate performance
- Invisage used the ASR SBIs to develop several multi-asset strategies, with the following returns

Strategy	Annualised Perf	Benchmark	Alpha
ASR SBI Trend	3%	MSCI World	5.14%
ASR SBI Commodities Trend	8%	GSCI Commodity Index	14.71%
ASR SBI Equities Trend	5%	MSCI World	4.25%
ASR SBI FX Trend	2%	US dollar Index	2.35%
ASR SBI Fixed Income Trend	1%	Barclays World Aggregate	-3.63%
ASR SBI Contrarian	5%	MSCI World	6.43%
ASR SBI Fixed Income Contrarian	0%	Barclays World Aggregate	4.15%
ASR SBI Commodities Contrarian	3%	GSCI Commodity Index	10.97%
ASR SBI Equities Contrarian	8%	MSCI World	4.69%
ASR SBI FX Contrarian	4%	US dollar Index	4.02

Introduction

For many years, investment research providers have been developing and maintaining proprietary indicators to inform their research and analysis. The breadth of such indicators includes macro, sector and company level measures and spans across multiple factors including fundamental factors such as GDP, inflation, and asset class valuations, as well as behavioural and technical analytics such as sentiment and credit impulse.

These indicators also use a broad range of inputs tested for explanatory prowess and are fine-tuned and adapted by experts to reflect market conditions.

The typical use cases for these datasets have been as early warning indicators of inflection points and changes, as well as within internal chart-packs and presentations to communicate insights.

However, the alt-data revolution has released these datasets from the pages of an investment report to increase their value and integration into the investment process.

In this paper, we showcase how these proprietary indicators can be integrated into the investment decision-making process to drive alpha. Using **Absolute Strategy Research's (ASR) Sentiment Barometer Indicators** and the **Invisage platform**, we demonstrate how it can improve investment returns.

Background Context

Founded in 2006, ASR is a market-leading independent research provider covering global markets and a broad range of asset classes.

Since 2012, the firm has been providing the ASR Sentiment Barometer Indicators (SBI) based on several components, which quantify behavioural elements such as price 'anchoring' and trend 'overconfidence', as well as shorter-term momentum.

The SBIs were developed to address the gap in lack of sentiment surveys within many segments of capital markets, despite excessive optimism/pessimism tending to go 'hand-in-glove' with 'risk-on/risk-off' rotations.

The SBIs combine several algorithms which quantify behavioural elements such as price 'anchoring' and trend 'overconfidence', as well as shorter-term momentum. They have a strong relationship with underlying sentiment surveys across assets, as well as their 'poll-of-polls' indicators.

The SBIs draw upon academic work in the past decade that has revealed the behavioural biases at work when making investment decisions. Whatever the asset traded, we have a natural tendency to be our own worst enemy: becoming overconfident during sustained up-trends and overly fearful when boom inevitably turns to market bust. Sentiment surveys allow us to quantify these biases.

The SBIs seek to answer the question - can we better understand the underlying behavioural dynamics behind these surveys? And – crucially – could those underlying dynamics quantify the sentiment profile on assets not covered by investor surveys?

ASR found that by focussing on a couple of cognitive biases, along with traditional momentum measures, they could come close to a view of current sentiment.

- Firstly, they looked at anchoring, the natural human tendency (even among the brave subset choosing to invest in financial markets) to rely too heavily on the initial piece of information offered (the "anchor") when they make decisions. The anchor might be the value of the last house they purchased, or even the soft commodity that they added to a multi-asset portfolio.
- Secondly, they noted the role that overconfidence is also likely to play when making investment decisions. Subjective confidence in judgments being reliable tends to be greater than their objective accuracy. The telling view of academic work such as that done by Terrance Odean, at the University of California, is that overconfidence decreases the expected 'utility' of traders. In short, the most overconfident traders are not necessarily the best.

The SBIs cover over 1,000 assets, calculated daily, encompassing all liquid asset classes and, in some equity markets, individual stocks and have been used by the research team within their weekly reports to deliver contrarian market insights.

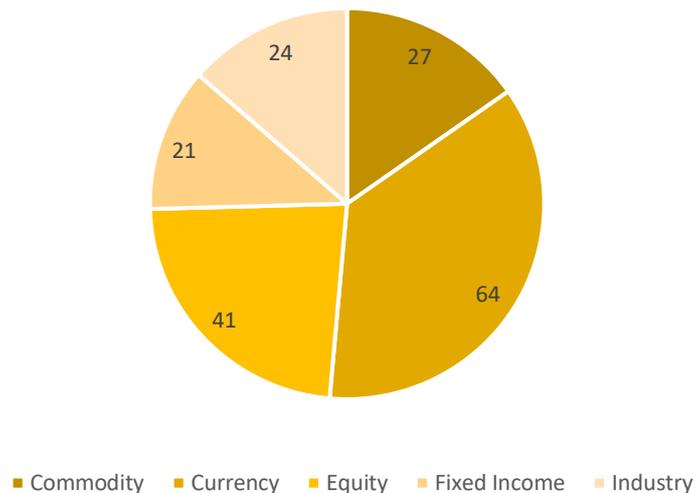
An additional factor to consider when using algorithm driven investment signals is the potential for changes and revisions within the underlying model, which cause breaks or discontinuities when comparing scores from one period to the next. As ASR's model is based on a set of core investment principles, there were no such issues to account for here.

Invisage is a data analytics platform that helps investors use alternative data to generate performance. Its Entropy engine transforms raw alternative data into ready to use datasets and generates investment signals from the data which are then modelled as investment portfolios on Invisage platform. Serving both data providers and consumers, Invisage enables faster adoption of alternative data within the investment management industry.

Portfolio Methodology

ASR provide an SBI time-series dataset for each of 177 capital markets, assets and exchanges, going back to December 2004.

ASR SBI Markets Coverage



Our first activity was to run the datasets through the Invisage platform to automatically match each SBI series to an investable asset – either a sector index, ETF or specific investment asset (i.e. Coffee Futures or USD/GBP spot rate). The data was also checked for gaps or outliers, however due to the high quality, no issues were found.

The datasets were then used to construct a set of long-only trend and contrarian portfolio strategies. With the following rules:

Trend:

- BUY an asset when the SBI score is ≥ 60 with last 2 observations < 60 . CLOSE it when SBI is >95 OR <50 .
- SELL an asset when the SBI score is ≤ 40 with last 2 observations >40 . CLOSE it when SBI is <5 OR >50 .

Contrarian:

- BUY an asset when the SBI score is ≤ 2 . CLOSE it when SBI is >50
- SELL an asset when SBI score is ≥ 98 . CLOSE it when SBI is <50

Investment Strategy	Markets/Instruments Covered
ASR SBI Trend	121
ASR SBI Commodities Trend	9
ASR SBI Equities Trend	48
ASR SBI FX Trend	56
ASR SBI Fixed Income Trend	5
ASR SBI Contrarian	115
ASR SBI Fixed Income Contrarian	5
ASR SBI Commodities Contrarian	9
ASR SBI Equities Contrarian	45
ASR SBI FX Contrarian	56

The following trading rules were applied in modelling portfolios.

- USD Book currency
- Portfolios were rebalanced daily, at the end of day using the closing prices
- No transaction costs or slippage costs were applied
- No hedging or optimization was done
- No leverage was used

Analysis and Outcomes

Based on the performance of the portfolios (as shown in section 5.3), we feel ASR's SBIs can be used to support several investment use cases:

Use case	Details	Illustrative integration
Idea generation	Scores can be used as either a confirmatory signal or potential new idea	Add a signal score screener to investment case development process
Position sizing	The level of volatility and size of score change can be used to set conviction levels and score risk-adjusted expected returns	Incorporate signal score into position size bands
Market timing	As scores change and inflection points identified, risk-on/off signals can be determined to adjust portfolio holdings	Set-up alerts to identify big changes/inflection points in signal score for watchlist universe
Portfolio construction	At an aggregate level, scores can be used to identify market characteristics and align short-term signals to longer term themes	Identify score changes and inflection points across specific categories (e.g. value versus growth, cyclicals versus structurals) to align themes to technical indicators
Portfolio optimization	Signal score can serve as a proxy for short term expected returns within the portfolio optimization for the medium to high churn portfolios	Incorporate signal score into the optimization models

Portfolio Performance

The table below summarizes the performance and risk characteristics of the portfolios to April 2021.

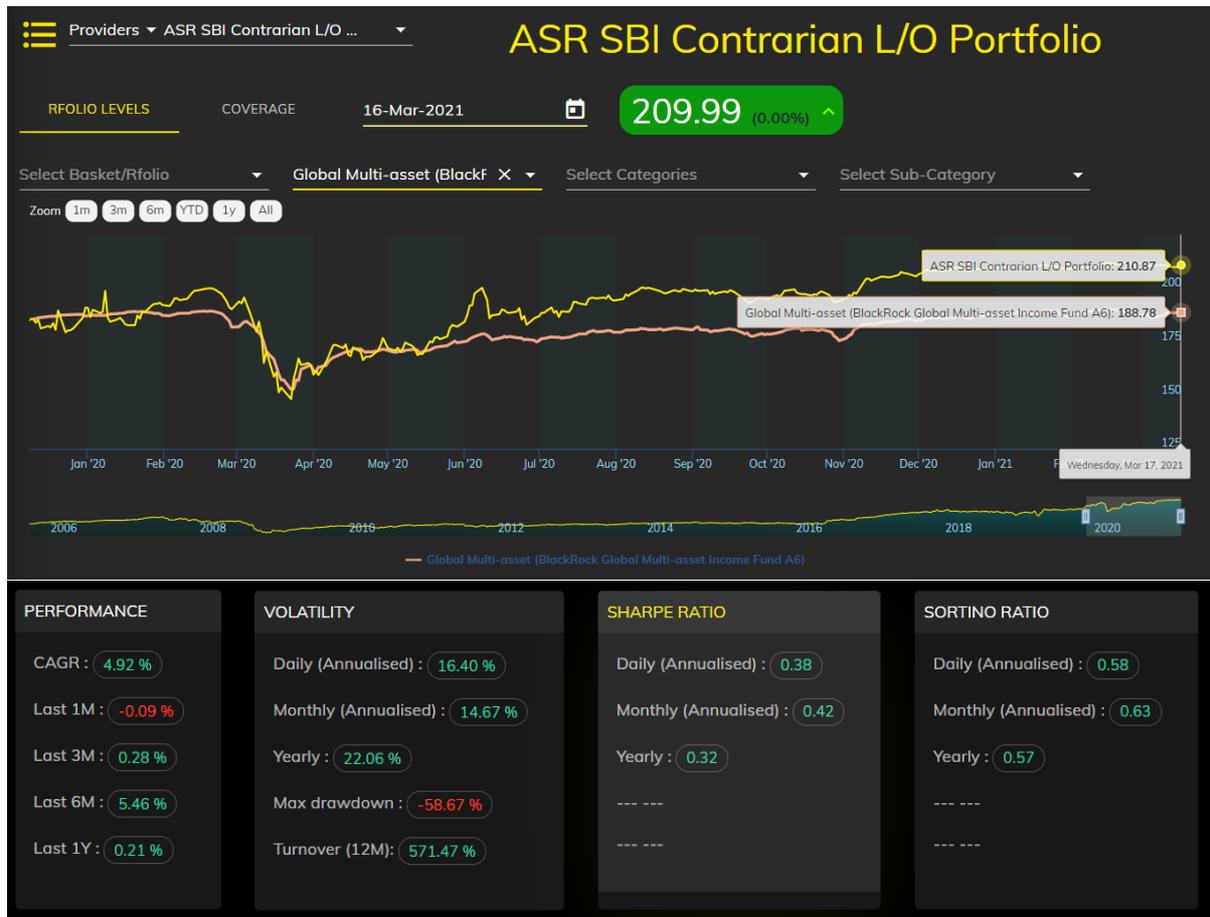
Strategy ¹	Inception	Annualised	Total	Benchmark	Alpha ²	Sharpe ³
ASR SBI Trend	04/10/2005	3%	60%	MSCI World	5.14%	0.23
ASR SBI Commodities Trend	04/01/2010	8%	129%	GSCI Commodity Index	14.71%	0.22
ASR SBI Equities Trend	04/10/2005	5%	110%	MSCI World	4.25%	0.28
ASR SBI FX Trend	30/12/2005	2%	40%	Bloomberg Dollar Spot Index	2.35%	0.26
ASR SBI Fixed Income Trend	02/12/2010	1%	13%	Barclays World Aggregate	-3.63%	0.19
ASR SBI Contrarian	04/10/2005	5%	110%	MSCI World	6.43%	0.32
ASR SBI Fixed Income Contrarian	05/05/2010	0%	1%	Barclays World Aggregate	4.15%	0.05
ASR SBI Commodities Contrarian	04/01/2010	3%	33%	GSCI Commodity Index	10.97%	0.26
ASR SBI Equities Contrarian	04/10/2005	8%	210%	MSCI World	4.69%	0.40
ASR SBI FX Contrarian	14/03/2006	4%	72%	Bloomberg Dollar Spot Index	4.02	0.31

¹ All strategies are long-only

² Calculated using the daily returns. Benchmark history may not be same as the portfolio history

³ Calculated using the annual returns and volatility of the portfolio

ASR SBI Multi-Asset Contrarian Portfolio Performance



ASR SBI Multi-Asset Trend Portfolio Performance



PERFORMANCE	VOLATILITY	SHARPE RATIO	SORTINO RATIO
CAGR : 3.06 %	Daily (Annualised) : 18.49 %	Daily (Annualised) : 0.25	Daily (Annualised) : 0.39
Last 1M : -1.17 %	Monthly (Annualised) : 14.08 %	Monthly (Annualised) : 0.30	Monthly (Annualised) : 0.48
Last 3M : -1.29 %	Yearly : 23.62 %	Yearly : 0.23	Yearly : 0.47
Last 6M : 6.12 %	Max drawdown : -62.28 %	---	---
Last 1Y : 0.28 %	Turnover (12M) : 2442.09 %	---	---

Top Performers - individual positions by portfolio strategy¹

Asset	Portfolio	Performance
Crude Oil WTI	ASR SBI Commodities Trend Portfolio L/O	125.20%
STOXX 50 Volatility VSTOXX EUR	ASR SBI Equities Contrarian Portfolio L/O	85.90%
Natural gas	ASR SBI Commodities Contrarian Portfolio L/O	45%
S&P 500 Technology Hardware & Equipment	ASR SBI Equities Trend Portfolio L/O	44%
CBOE/CME FX Yen Volatility Index	ASR SBI FX Contrarian Portfolio L/O	30.60%
AUD/JPY - Australian Dollar Japanese Yen	ASR SBI FX Trend Portfolio L/O	30%
UK 10-year gilts	ASR SBI Fixed Income Trend Portfolio L/O	23.70%
United States 5-Year Bond	ASR SBI Fixed Income Contrarian Portfolio L/O	5.70%

Please contact us on info@invisagealpha.com for further details, including the current signals and individual security level weights.

Conclusion

At present, the use of proprietary indicators is often confined to chart packs and presentations. However, as we have shown in this research paper, such datasets can play an integrated role within the investment decision-making process and can be sources of alpha.

To do this effectively, the data must be run through a process of asset matching, back-testing and portfolio construction – a fully automated function within the Invisage platform.

Combined with its alpha potential, ASR's SBIs, in our opinion enhances the investment decision making for institutional investors, offering the following benefits:

- Integrate sentiment and behavioural signals into a fundamental or top-down investment strategy through scores and market screens
- Support position sizing and market timing considerations through a transparent and objective scoring mechanism
- Align long-term thematic ideas with immediate trading strategies through the aggregation of scores and expected returns across various categories
- Go deeper and further than “alt data” correlations and signals with actual investment analytics across a broad range of investable asset
- Ready to integrate signals and risk indicators for companies likely to underperform market expectations through changes in fundamental or technical factors
- Avoid issues such as web-scraping risks while still benefiting from alternative data driven insights

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