

A Deep Dive Discussion on SPY with our Head Quantitative Developer, Brian Miller

The conceptual philosophy & systematic structures deployed in Equity Science's SPY_Long_Only are firstly designed to work in unison with one another with the objective to diversify the factors (or sources of alpha) that produce outcome, and to detach outcome from any singularity. For its many adaptive structures to work symbiotically to aim to obtain higher outcome consistency by exploiting a wide array of value variations in a plethora of market environments & sub structures. We accomplish this a few ways, mainly by identifying 64 repetitive market conditions, then exploiting each condition in its own unique way, while allowing for multiple entries per position, and deploying an adaptive allocation module. Which dynamically adapts the per entry & per position allocation basis based on the current environment and level of value identified.

Our adaptive systematic structures for our entry logic are then combined with a wide array of dynamic per entry & per position exit models. As we seek to give the model as many ways as possible to secure a positive outcome. The primary factors for growth are being able to detach growth from only up trends, while executing healthy trade frequency combined with a compounding allocation module. Allowing the model to potentially outperform while not needing to seek a large % return per position basis.

Every investment firm in the world practically deploys diversification, for many reasons, however not many integrate that objective on a per asset or per model basis. By reducing outcome dependency on variables of a singular nature, increasing the number of conditions that may nurture positive outcome, and seeking strategic simplicity by exploiting various forms of value, we align conceptually with the fundamental & behavioral justifications of a linear bias, as we do not pursue nuanced sources of alpha. As we seek to pursue creative strategic simplicity within a highly adaptive structure.

Our models are designed to slightly outperform in strong bull trends, however significantly outperform in Random, Reverting, Consolidation, Cyclic, & OverSold conditions, seeking to benefit from value & volatility. Because of our multiple entry structure and value based allocation module, the model also rarely is heavily allocated in the market, and when it is heavily allocated, both the entries & per entry allocations are multi-factorial value. Historically averaging less than 50% activation of available capital on a per position basis with approx 53% time in market. As Capital activation & %TIM are two risk factors we seek to mitigate conceptually & structurally.

Ultimately, our objective is to find pathways that allow us to diversify the mechanisms that produce outcome, to detach outcome from any individual market condition, entry, or value variant, in the goal to integrate methods of diversification that may nurture higher outcome consistency & lower risk profiles compared to Buy&Hold. Obviously not all risks can be mitigated, and every model performance will be unpredictable, the best we can do is realize that price characteristics and price movements will never occur in the same duration or sequence as they did historically, as randomness will always be present, so we aim instead to exploit various types of movements that go against the long term biased direction. To do so in an adaptive manner, so the model can apply a condition specific solution, instead of a wide brush intended for every environment.