# Reevaluating Portfolio Resilience in the Post-COVID Era: A Comparative Analysis of the Dragon Portfolio and Traditional Allocation Strategies

**Abstract**

This paper looks at the Dragon Portfolio's practical viability as a substitute for conventional asset allocation models in the wake of the COVID-19 crisis. Inspired by Artemis Capital Management's 2020 study "*The Allegory of the Hawk and the Serpent: How to Grow and Protect Wealth for 100 Years*", the Dragon Portfolio is meant to flourish across all four macroeconomic environments by balancing growth and defensive exposures. Using publicly accessible indices, we build a contemporary approximation of the approach and evaluate its performance—both in absolute and risk-adjusted terms—against that of a traditional 60/40 portfolio and altered Dragon variants omitting commodity or gold components. The study emphasizes the post-2020 era marked by inflation shocks, correlation breakdowns, and more volatility.

Results indicate that, particularly under normalized volatility, the complete Dragon Portfolio shows better resilience and risk efficiency. Data continuity and index substitutions are acknowledged as limitations; possible improvements are then addressed.

## Introduction

The financial markets have been changed by the COVID-19 epidemic and its aftermath, which has tested conventional asset allocation theories and driven investors to look for more robust portfolio designs. Among these, the Dragon Portfolio has attracted notice for its capacity to negotiate several macroeconomic regimes by means of a balanced approach combining equities, bonds, commodities, long-volatility strategies, and trend-following assets. A departure from the traditional 60/40 allocation, it is meant to operate across inflationary and deflationary cycles by including asset classes that flourish in crisis times. Reevaluating the efficacy of this approach in the post-COVID scene marked by increased volatility, changing correlations, and inflationary pressures turns especially pertinent.

This begs the question of how the Dragon Portfolio has fared relative to more conventional asset allocations since 2020. More precisely, can the inclusion of commodities, notably gold, improve portfolio resilience, or can their exclusion maintain structural advantages? Understanding these dynamics is critical for assessing the strategy's flexibility to an ever-changing financial environment. To address these problems, the analysis will first define the Dragon Portfolio's conceptual framework, emphasizing the justification for its diverse composition. It will then evaluate its post-COVID performance by comparing a full Dragon allocation to a typical 60/40 portfolio and two modified versions, one that excludes commodities and the other one excluding the gold component only. Finally, it will look at the function of gold in the commodity segment and other techniques to include long-volatility exposure when direct access is limited.

Through this examination, the study aims to assess whether the Dragon Portfolio remains a superior risk-adjusted investment approach in today’s financial landscape.

## Foundations of the Dragon Portfolio: Theory, Composition, and Strategic Rationale

Traditional portfolio allocation strategies, such as the widely used 60/40 strategy, are based on a diversification assumption that implies an inverse correlation between stocks and bonds. However, market crises and macroeconomic upheavals have repeatedly exposed the approach's weaknesses, particularly in situations where both asset classes experience simultaneous drawdowns. The Dragon Portfolio, developed as a more resilient option, aims to solve these deficiencies by including a broader range of asset types, each tailored to perform in a variety of economic environments.

The Dragon Portfolio's underlying idea is that financial markets go through many macroeconomic regimes, such as inflationary booms, deflationary recessions, and liquidity crises. Unlike typical portfolios, which largely buffer risk through equity-bond diversification, the Dragon Portfolio divides its exposure into five unique components,

each of which plays an important role in minimizing risk and capturing rewards under changing market conditions.

## The composition of the Dragon Portfolio

The Dragon Portfolio allocates risk rather than capital in a balanced manner across its components, resulting in a drastically different weighting than traditional portfolios. Its components are as follows:

- *Equities (24%)* – Equities, which represent exposure to long-term economic growth, generate returns during periods of expansion. However, unlike standard portfolios, which outweigh stocks, the Dragon Portfolio maintains a moderate allocation to balance risk among other assets.

- *Bonds (18%)* – Government bonds provide stability in deflationary circumstances and serve as a buffer when equity markets collapse. While traditional portfolios assign a far higher share to bonds, the Dragon Portfolio minimizes its reliance on them due to their diminishing diversification benefits in a low-yield world.

- *Gold (19%)* - Gold plays an important role in capital preservation by acting as a hedge against inflation, monetary debasement, and systemic risk. Unlike broad commodity exposure, which may be volatile and cyclical, gold has historically retained purchasing power over extended periods of time and fared well during crises.

- *Commodity trend following tactics (21%)* - Systematic trend-following tactics for commodities give diversification benefits by capturing long-term raw material price trends. These techniques enable the portfolio to gain on long-term changes in energy, metals, and agricultural products while avoiding direct exposure to the volatility of physical commodities.

- *Long volatility strategies (18%)* - Traditionally used to buffer against high market stress, this component tries to create convex returns during periods of increased uncertainty. Its purpose is to mitigate sudden drawdowns, especially during

## Strategic Rationale: A Resilient, All-Weather Approach

What sets the Dragon Portfolio apart from other models is its rejection of the notion that risk can be controlled exclusively through equity-bond diversification. Instead of focusing on a negative correlation between stocks and bonds, it includes asset types that perform well in a variety of economic environments. The use of commodities and trend-following tactics ensures that the portfolio is not susceptible to simultaneous equities and bond drawdowns, which have been more common in recent years.

Furthermore, its risk-balanced allocation ensures that no one asset class dominates performance. Unlike a 60/40 portfolio, in which equities traditionally bear the majority of the risk, the Dragon Portfolio's structure is structured so that each component contributes to resilience. This approach is especially important in the post-COVID financial landscape, where inflationary pressures, policy shifts, and volatility have tested traditional diversification techniques.

Understanding the reasoning behind the Dragon Portfolio's design is critical for analyzing its durability in recent years. The following analysis will compare its real-world performance since 2020 to both the traditional 60/40 portfolio and two modified versions that removes specific components. This analysis will determine whether its multi-asset structure gave a significant advantage in weathering post-pandemic financial instability.

## Performance Analysis of the Dragon Portfolio in the Post-COVID Era: Comparative Evaluation and Scenario Testing

The Dragon Portfolio's durability under diverse macroeconomic scenarios makes it an appealing alternative to traditional allocation strategies. However, its actual performance in the post-COVID period must be carefully evaluated to establish whether its theoretical advantages translate into real-world benefits. This section explores the Dragon Portfolio's empirical performance since 2020, comparing it to a traditional 60/40 portfolio, a modified version that eliminates commodities exposure, and a final version that removes the gold component. By comparing returns, volatility, and risk-adjusted indicators across multiple market regimes, we hope to determine if the Dragon Portfolio has delivered superior diversity and stability in an increasingly complicated financial landscape.

### Portfolio Reconstruction Methodology

To conduct a thorough comparison analysis, we recreated each portfolio by rebalancing the asset class allocations with the indexes and proxies listed in the table below. The Dragon Portfolio, the classic 60/40 portfolio, the Dragon Portfolio excluding commodities, and the Dragon Portfolio excluding gold all relied on monthly rebalancing assumptions. Each allocation was paired with a sample index or data source to reflect realistic post-COVID performance. This unified methodological framework guarantees that return and risk measurements are comparable across all strategies.

To ensure wide market coverage and dividend reinvestment, equities are tracked using the S&P 500 Total Return Index (^SP500TR on Yahoo Finance). The bond allocation is reflected by the SPDR Bloomberg U.S. Treasury Bond UCITS ETF (TRSY.MI), which provides exposure to high-quality sovereign debt with reinvested interest income. The monthly returns for the gold allocation are calculated using gold spot prices (GC=F) obtained from Yahoo Finance.

For commodities trend-following methods, we use the With Intelligence Diversified CTA Index, which monitors the performance of a variety of systematic trend-following strategies. This was chosen in lieu of the defunct HFRX Macro Systematic Diversified CTA Index. Similarly, to reflect long-volatility strategies, we utilize the With Intelligence Long Volatility Hedge Fund Index, which provides a more up-to-date and comprehensive benchmark than the Eurekahedge CBOE Long Volatility Hedge Fund Index.

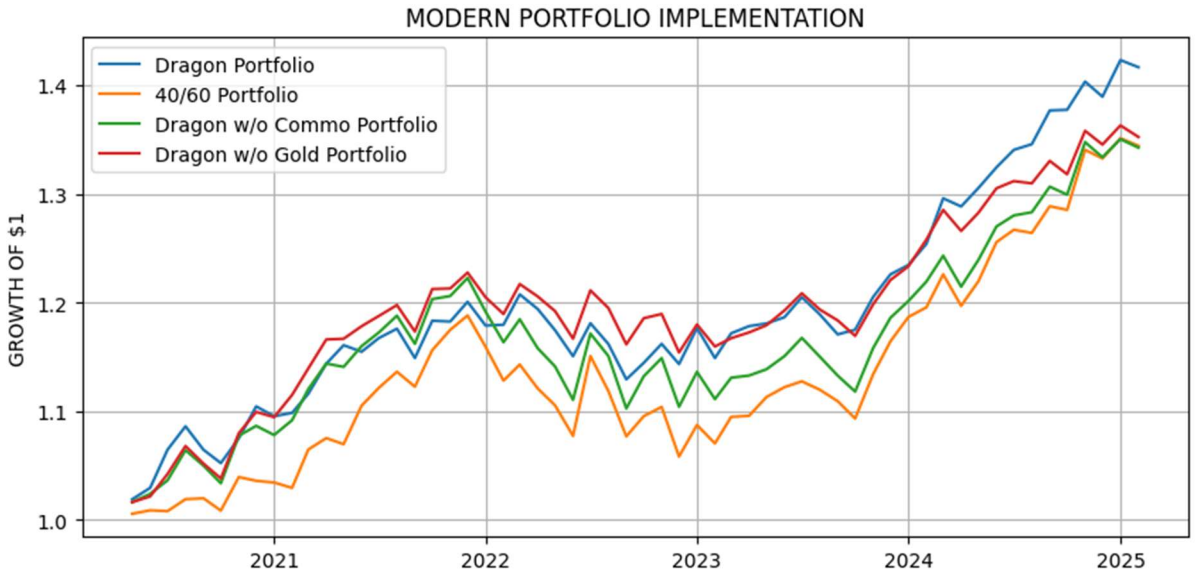
| | DRAGON | 60/40 | DRAGON W/O COMMO | DRAGON W/O GOLD |
|---|---|---|---|---|
| PORTFOLIO ASSET ALLOCATION | | | | |
| Equities | 24% | 40% | 40% | 30% |
| Bonds | 18% | 60% | 30% | 22% |
| Gold | 19% | - | - | - |
| Commodities | 21% | - | - | 26% |
| Long-vol | 18% | - | 30% | 22% |
| **TOTAL** | 100% | 100% | 100% | 100% |

*Table 1: Asset Allocation Breakdown of Portfolio Variants*

We first collected and computed monthly returns for each underlying component before reconstructing the portfolios accordingly. The initial stage of our research concentrated on raw cumulative performance, with no volatility normalization.

## Performance Analysis of the Different Portfolio Variants

The performance curves show notable divergences in portfolio characteristics over the post-COVID timeframe (2020-2025):




*Graph 1: Cumulative Returns of Portfolio Variants (2020-2025, Without Volatility Targeting)*

We first see that the standard 60/40 portfolio continuously underperforms during the 2020-2025 era. This underperformance is easily explained by the tough post-2020 climate for both equities and bonds. While equities rebounded well in 2020-2021, their momentum was hampered by inflationary pressures, monetary tightening, and geopolitical uncertainties in 2022-2023. Simultaneously, government bonds, which are normally employed as a counterweight in balanced portfolios, provided little protection, suffering from rising interest rates and a breakdown in the equity-bond correlation, particularly during periods of unexpected inflation and rate hikes. This undercuts the usual diversification benefit on which the 60/40 strategy is built.

Beyond these short-term causes, the 60/40's underperformance reveals underlying structural limits. As macroeconomic regimes became more frequent, variable, and less associated with conventional fundamentals, the inflexible and binary 60/40 framework was increasingly inappropriate. It lacks the agility required to traverse a world where market cycles are shorter, more abrupt, and less predictable, and its static allocation model does not adapt significantly to regime transitions, such as those experienced at the end of 2021 or the beginning of 2024.

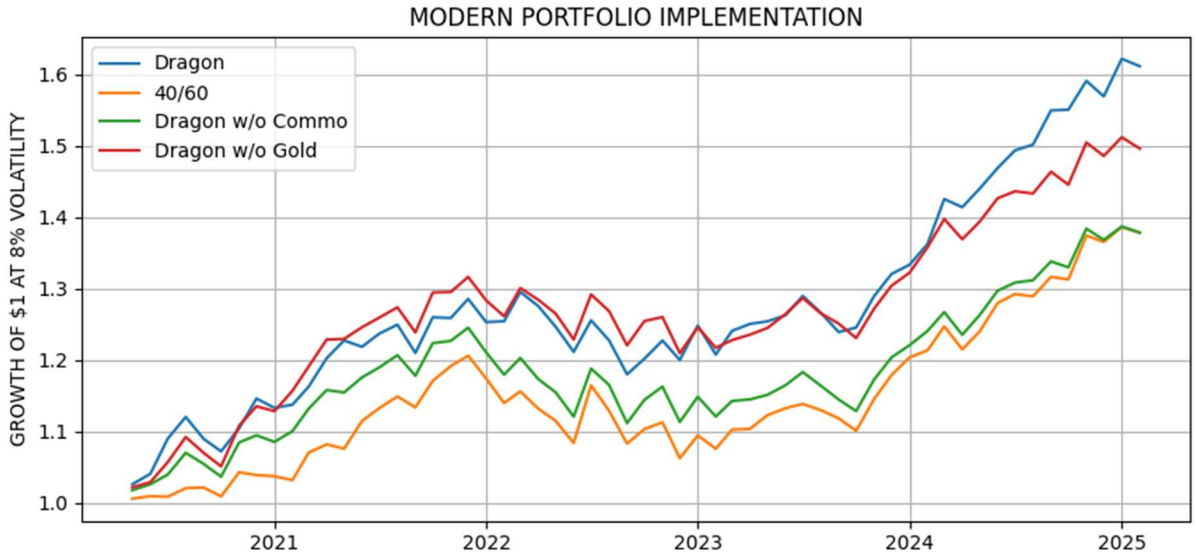
In contrast, the Dragon Portfolio outperforms all other combinations and shines up as one of the more resilient strategies during the 2022-2024 growth slowdown. This robustness can be linked to the Dragon approach's diversification, notably its exposure to long volatility and trend-following strategies, which have historically performed well during times of macroeconomic stress and volatility in the markets. Importantly, the Dragon Portfolio is not intended to predict market direction, but rather to allocate risk across the four main macroeconomic regimes—growth, recession, inflation, and disinflation—resulting in a structure that is intrinsically resilient in the face of uncertainty.

Notably, the Dragon Portfolio's performance accelerates the most between 2024 and 2025, demonstrating its ability to benefit from trending market circumstances and policy adjustments following the tightening cycle. This outperformance during recovery periods contrasts sharply with the 60/40 portfolio's inertia, which renders it too slow to grasp upward momentum. The Dragon's adaptive architecture, which employs dynamic tactics such as commodities trend-following, enables it to pivot as conditions change rather than being fixed on static assumptions.

Over a short time frame (e.g., 2024-2025), the three alternative portfolios—Dragon without commodities, Dragon without gold, and the 60/40—appear more equal in terms of trajectory. However, the entire Dragon Portfolio ultimately outperforms, which is especially impressive given that this outperformance is accompanied by the lowest observed volatility (5.78%), a maximum drawdown of only 2.80%, and a Return-to-Risk ratio of 1.23, indicating superior efficiency in converting risk into return (see Table 2, page 8). This combination of durability and performance is very rare—most portfolios must choose between the two, but the Dragon achieves both.

## Risk-Adjusted Performance: Volatility-Targeted Portfolio Comparison

However, to achieve a fair comparison, particularly in terms of risk-adjusted returns, we elected to normalize each portfolio's volatility to 8% annualized, which corresponds to the highest recorded volatility of the unleveraged 60/40 portfolio over the study period. This standardization enables us to evaluate performance on a risk-equivalent basis, which is especially useful when portfolios have varying inherent volatilities due to asset mix.




*Graph 2: Cumulative Returns of Portfolio Variants (Volatility-Targeted at 8%)*

Under this prism, performance disparities become even more apparent. The Dragon Portfolio once again leads, with the highest risk-adjusted return and the lowest drawdown among all variations. With a Sharpe ratio of 1.23, it demonstrates not only its ability to tolerate volatility, but also to efficiently transform risk into return, particularly in an environment characterized by shifting macroeconomic regimes and little visibility. The stability of its performance across market phases—recessions, inflation shocks, and recoveries—shows the value of a strategy that spreads exposure across all key economic outcomes rather than relying on a single scenario.

The Dragon Portfolio without gold is the second-best performer, demonstrating that, while gold offers value, particularly as a long-term store of value and hedge against monetary instability, it is not the key driver of portfolio convexity. Its contribution is primarily passive and dependent on macroeconomic factors such as real interest rates and central bank dynamics. In contrast, active components, particularly systematic trend-following tactics, have significantly greater flexibility in negotiating tumultuous circumstances.

In contrast, removing the commodity trend-following component severely reduces portfolio quality. Absolute and risk-adjusted returns fall, while drawdowns rise, highlighting the critical role this allocation plays in the Dragon architecture. Unlike gold, which provides static protection, trend-following methods adjust dynamically to

long-term fluctuations, whether inflationary, deflationary, or caused by supply-side shocks. They offer the portfolio with directional responsiveness, capturing advantage in momentum-driven markets while limiting losses during whipsaw periods. This asymmetry—convexity rather than simple diversification—distinguishes the Dragon structure from standard asset mixes.

Meanwhile, the classic 60/40 portfolio remains last, with the lowest Sharpe ratio and the greatest fall under leverage. Even after normalizing for volatility, it fails to provide competitive risk-adjusted returns. This finding shows not only a breakdown in the equity-bond connection, but also the structural rigidity of a binary allocation model in a world where inflation, monetary policy, and geopolitical risks are inextricably linked. As Artemis Capital stressed in its initial thesis, diversification now must go beyond asset classes and encompass regimes, behaviors, and risk surfaces.

In conclusion, these findings demonstrate that the Dragon Portfolio is not only superior in absolute and relative terms, but also well-suited to the reality of post-COVID markets. With its commodity trend-following engine and macro-diversified core, it provides a modern, resilient, and return-efficient alternative to the increasingly antiquated 60/40 structure.

Finally, we summarize each portfolio's important performance indicators, which include annualized return, Sharpe ratio, maximum drawdown, and annualized volatility. The table below shows the results with and without volatility normalization.

| | DRAGON | 60/40 | DRAGON W/O COMMO | DRAGON W/O GOLD |
|---|---|---|---|---|
| PORTFOLIO RETURNS: LEVERAGED TO 8% VOLATILITY | | | | |
| Annual Return | 9.85% | 6.96% | 6.71% | 8.36% |
| Sharpe Ratio | x1.23 | x0.87 | x0.84 | x1.05 |
| Max Drawdown | (3.87%) | (4.50%) | (4.58%) | (4.02%) |
| Volatility | 8% | 8% | 8% | 8% |
| PORTFOLIO RETURNS: CASH FUNDED | | | | |
| Annual Return | 7.12% | 6.39% | 6.13% | 6.20% |
| Return to Risk | x1.23 | x0.87 | x0.84 | X1.05 |
| Max Drawdown | (2.80%) | (4.13%) | (4.19%) | (2.98%) |
| Volatility | 5.78% | 7.34% | 7.31% | 5.94% |

*Source: Yahoo finance (www.sg.yfinance.com), WithinIntelligence (www.withinintelligence.com)*

*Table 2: Performance Metrics (Cash-Funded Portfolios, 2020-2025)*

The performance indicators show the Dragon Portfolio's supremacy in both leveraged and cash-funded setups. When volatility is normalized to 8%, the Dragon Portfolio has the highest annual return (9.85%) and the highest Sharpe ratio (1.23) while keeping the lowest maximum drawdown of -3.87%. Even in the cash-funded version, the Return-to-Risk ratio remains unrivaled at 1.23, with far lower volatility (5.78%) and drawdown (-2.80%) than the other alternatives.

Removing the gold component reduces performance considerably, but the portfolio still performs well with a Sharpe ratio of 1.05. However, eliminating the commodity trend-following component has a significantly greater negative impact: both the annual return and risk-adjusted measures decrease sharply, particularly in the leveraged case, when the Sharpe falls to 0.84—even worse than the standard 60/40.

These findings demonstrate that commodity trend-following is critical for improving performance and decreasing negative risk. In contrast, the 60/40 portfolio remains the least efficient across all criteria, underscoring the conclusion that the Dragon Portfolio provides a structurally more resilient and return-efficient strategy in today's market.

## Further Investigation and Limitations

While the outcomes of this study corroborate the Dragon Portfolio's superior resilience and return efficiency, various pathways for further research remain open—both to enhance the technique and to deepen the interpretation of results.
One of the key issues encountered during the portfolio reconstruction process was translating the original Dragon design into a new, investable structure. Artemis Capital's 2020 approach refers to indices like the HFRX Macro Systematic Diversified CTA Index and the Eurekahedge CBOE Long Volatility Index, which have since been terminated or are no longer publicly maintained. As a result, we were forced to replace these with proxies (for example, the With Intelligence Diversified CTA Index and the With Intelligence Long Volatility Hedge Fund Index), which, while similar in design and objective, may differ in terms of data coverage, historical continuity, and underlying strategy representation.

This poses crucial problems about index reliability, continuity, and replicability. Even though the rebuilt portfolios employing these proxies show performance patterns consistent with the original theoretical framework, future research should look at the impact of different index choices on portfolio behavior, especially during regime shifts or market stress. A more in-depth look at the constituent managers and strategies driving these indices could help improve knowledge of the precise exposures at play.

Another area of investigation is the actual application of the Dragon Portfolio in real-world asset management scenarios. The portfolio's reliance on systematic methods and derivatives-based components (e.g., long volatility, CTA) raises concerns about accessibility, fees, transparency, and liquidity, particularly for retail investors and institutional allocators subject to regulatory restraints.

Finally, while our research focuses on the post-COVID period (2020-2025), extending the analysis to a larger historical frame using backfilled or synthetic data—with appropriate adjustments—could help validate observed tendencies across diverse macroeconomic regimes. This would bolster the case for structural resilience and

provide additional insight into how the Dragon Portfolio performs in truly inflationary or stagflationary circumstances, which have been underrepresented in recent decades.

In conclusion, while the current findings are promising and consistent with the original Dragon thesis, further validation and refinement are required to solidify its relevance as a modern portfolio strategy—as well as to ensure its suitability, scalability, and resilience in increasingly complex financial markets.

## Conclusion

The post-COVID financial environment has tested traditional portfolio construction models, exposing structural flaws in the face of inflationary shocks, rising interest rates, and altering correlations. Against this context, the Dragon Portfolio stands out as an appealing alternative—one that diversifies not only across asset classes, but also across macro regimes, behaviors, and sources of convexity.

This study demonstrates that the Dragon Portfolio has continuously beaten the traditional 60/40 allocation since 2020, both in absolute terms and risk-adjusted. Its resilience during downturns, along with its capacity to capture upside during recovery periods, demonstrates the robustness of its multi-asset, multi-regime architecture. The comparison results also emphasize the importance of commodity trend-following strategies, which were more effective than gold in boosting portfolio performance and mitigating downside risk.

At the same time, the process of converting the theoretical Dragon framework to a modern, investable structure exposed practical obstacles, particularly in terms of acquiring relevant indices and maintaining continuity of exposure. While the proxies used in this work have demonstrated coherence with the original thesis, they also highlight the need for additional refinement and empirical validation, particularly over longer time horizons and more diversified economic regimes.

Finally, this comparison study not only validates the Dragon Portfolio's applicability in today's market conditions, but it also calls for a larger reconsideration of portfolio construction. In today's increasingly fragmented, nonlinear world, robustness cannot be based on previous correlations or static allocations. Instead, it calls for a purposeful, forward-thinking framework that accepts uncertainty as its starting point.

In this regard, the Dragon Portfolio is more than just a product of quantitative optimization; it is also a philosophical shift—a new blueprint for resilience in the age of upheaval.

# Appendix

## Source document

Artemis Capital Management (2020). *The Allegory of the Hawk and the Serpent: How to Grow and Protect Wealth for 100 Years. Artemis Capital Management*.

Available at:
https://www.artemiscm.com/research-papers/category/Reserach+Paper

## Data Sources

Yahoo Finance
Historical monthly data for the following indices were retrieved from Yahoo Finance (https://finance.yahoo.com):

- *S&P 500 Toral Return Index* (^SP500 TR) – for equity exposure
- *SPDR Bloomberg U.S. Treasury Bond UCITS ETF* (TRSY.MI) – used to proxy U.S. government bond returns
- Gold spot price (GC=F) – for the gold allocation

With Intelligence
Data for the following hedge fund strategy indices were sourced from With Intelligence (https://platform.www.withintelligence.com/performance/indices):

- *With Intelligence Diversified CTA Index* – used to represent commodity trend-following strategies
- *With Intelligence Long Volatility Hedge Fund Index* – used to represent long-volatility strategies