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The Case for a Strategic CTA Allocation

Executive Summary

The shift in the macroeconomic environment since 2021 has negatively affected equity and bond portfolios. Allocating to a trend-following CTA strategy can be an effective way to improve performance, especially when inflation and interest rates are elevated.

In this paper:

We describe the challenges faced by portfolios composed predominantly of long-only investments in equities and bonds.

We assess options for improving performance and highlight the lack of genuine alternative investments available to institutional investors today.

We identify trend-following CTA strategies as a compelling strategic allocation, due to their highly diversifying and portfolio-enhancing properties, alongside favourable liquidity and cash efficiency.

Our analysis estimates that a 10% allocation to trend following would have increased the annualised excess return of a 60-40 equity-bond portfolio by 0.7% since 1972 (from 4.1% to 4.8%), improving performance in 87% of 10-year periods.

This annualised return improvement increases to 1.3% on average in the bottom decile of 10-year periods for a 60-40 equity-bond portfolio.

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After the Financial Crisis: The Rise and Fall of the 60-40 Portfolio

The 12 years following the 2008 Global Financial Crisis were a period of exceptional performance for equities and bonds. Propelled by low interest rates and quantitative easing, both asset classes outperformed expectations by a significant margin.

Portfolios that combined the two also performed very well. Portfolio returns were strong, as might be expected given the individual asset class performance, but portfolio risk was also well controlled, because the correlation between stocks and bonds was negative. Typical combinations delivered strong returns with low volatility: a return profile more in line with a successful hedge fund than a strategic asset allocation.

The picture, however, has changed radically since central bank policymakers began reining in easy monetary policy in the final quarter of 2021. In 2022, the de facto benchmark combination, a 60%-40% blend of equities and bonds, delivered its fifth worst calendar year since 1871, and has had a choppy 2023 thus far.





Source: Winton, Bloomberg, R. J. Shiller, as at 30 September 2023. See Appendix 2: Basis of Performance for more information. Analysis assumes monthly rebalancing back to 60-40 target weights.

Moreover, the poor performance of equity-bond portfolios has coincided with a shift in the underlying dynamics of the two asset classes. Annualised excess returns have dipped below their preceding 10-year averages and the rolling three-year equity-bond correlation has turned positive for the first time since the 1990s.¹ The diversification investors enjoyed between equities and bonds has disappeared along with the outsized returns.

¹We define "excess return" as returns above the risk-free rate. The return of a US three-month Treasury bill is used to estimate the risk-free rate.

Figure 2: A shift in equity-bond dynamics since 2021



Rolling three-year annualised excess returns

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the 3-month US Treasury bill.

Adapting to the New Reality

What is the right response to the changes in asset class behaviour since 2021? Clearly an assessment of the outlook for equities and bonds is an important starting point.

Proponents for long-only equity-bond portfolios point to an improved situation since both asset classes have, in effect, become cheaper following price declines. Yet, others have arrived at the opposite conclusion, highlighting how the re-emergence of inflation and higher interest rates could lead to lower real returns for equities and bonds, despite their current prices.²

Forecasting market returns even 12 months out is notoriously difficult, let alone over the time horizons that matter for long-term asset allocation decisions. This is evident in the forecasts made each January by bank strategists for the year-end S&P 500 level. Figure 3 shows how the actual return was outside the range of predicted returns in 10 of the past 22 years and that the median forecast failed to anticipate any of the seven calendar-year declines.

² Financial Times, <u>Debate over 60/40 portfolio rolls on despite BlackRock stance</u>, 16 June 2023; Bloomberg, <u>JPMorgan Says 60/40</u> <u>Portfolio Far From Dead, Set to Trounce Cash</u>, 18 October 2023; The Wall Street Journal, <u>The Trusted 60-40 Investing Strategy</u> <u>Just Had Its Worst Year in Generations</u>, 19 October 2023;



Figure 3: Bank strategist forecasts for S&P 500 calendar-year price returns

Source: Winton, Bloomberg, as at 30 September 2023. S&P 500 price level year-end forecasts were compiled from January Bloomberg Bank Strategist surveys and compared to the price level at the previous year end.

A more empirical approach is to look at the historical performance of equity-bond portfolios over a longer period, which captures a wider range of market environments. For example, going back to the 1970s gives a glimpse of what we might expect during periods of high inflation and interest rates.

The results are shown in Figure 4, and several features stand out:

- 1. From 2009 to 2021, the performance of the 60-40 portfolio (and the equity component, in particular) was much higher than historically typical levels.
- 2. The correlation between equities and bonds was consistently negative for most of the last 20 years, yet consistently positive for the 20 years prior to that.
- 3. Looking back at the 1970s and early 1980s, rather than just the post-crisis period, provides a much gloomier outlook for equities and bonds.

An alternative way to view the data is to examine the range of realised performance outcomes over a timescale relevant to large-scale asset allocation decisions. Figure 5 shows the compounded excess returns of a 60-40 portfolio over all 10-year periods from 1954 to the present. The post-crisis period (highlighted in blue) clearly stands out as exceptional, and thus is unlikely to be a reliable guide to future performance. Indeed, the analysis shows that the same portfolio produced a negative excess return over 18% of 10-year periods.

What is clear from the charts is that asset class returns can deviate from long-term averages for periods that are longer than investors' careers. Regardless of how we choose to form expectations for future performance, the uncertainty on the estimate will be very large.

Backtests like this do, however, allow us to assess the effect of adjustments to the portfolio. We will now look at possible improvements to a 60-40 equity-bond allocation. Our conclusion is that an allocation to a trend-following CTA strategy is a particularly helpful enhancement to an equity-bond portfolio in the long run, and especially in the periods when traditional asset classes fare poorly.



Figure 4: Variability around long-term averages for equities, bonds and 60-40 portfolio



Rolling 10-year annualised excess returns

Source: Winton, Bloomberg, R. J. Shiller. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the 3-month US Treasury bill. Analysis assumes monthly rebalancing back to 60-40 target weights.

Figure 5: Recent performance has been exceptional for long-only equity-bond portfolios



Range of 10-year excess returns for a 60-40 equity-bond portfolio since 1954

Source: Winton, Bloomberg, R. J. Shiller, as at 30 September 2023. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the 3-month US Treasury bill. Analysis assumes monthly rebalancing to 60-40 target weights.

Passive Commodities Exposure Is Not the Answer

Allocators can theoretically improve the range of outcomes for their portfolios by adding other asset classes to the mix. One option is to include a diversified long-only allocation to commodities. This approach rose to prominence in the 2000s commodity super-cycle³ and has received renewed interest in recent years alongside an improvement in performance and an uptick in inflation.

Commodities look like an attractive addition at first glance because they have a history of low longterm correlation with equities and bonds and a strong track record in periods of high inflation.⁴ In addition, the asset class can be accessed passively, is high capacity, and offers ample liquidity via futures markets.

We can assess how reallocating a portion of the 60-40 portfolio – 10% for the purposes of this analysis – to commodities affects the variability of portfolio returns in the same way we viewed the range of outcomes delivered by a 60-40 equity-bond portfolio in Figure 5.

Figure 6 shows the results of this analysis. The histogram on the left reveals how commodities reduce the losses in the worst 10-year periods for the 60-40 portfolio – those mostly spanning the periods of high inflation of the 1970s and early 1980s. However, as the right table reveals, the allocation reduces returns more often than not and has the potential to deliver severe underperformance versus the original 60-40 portfolio.



Figure 6: Reallocating 10% of a 60-40 equity-bond portfolio to commodities

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights.

Unlike equities and bonds – which tend to rise over long periods of time to reward investors for putting their capital to work – commodity prices fluctuate widely around long-term increases in price levels. In addition, commodity futures returns reflect costs associated with holding physical commodities, such as storage, transportation and insurance. Together, these costs can act as a drag on total returns in the long run.

³ Gary Gorton, K. Geert Rouwenhorst, <u>Facts and Fantasies About Commodity Futures</u>, 2005.

⁴ See Appendix 1: Performance Across Environments and Long-Term Correlations

These unappealing performance characteristics are visible in Figure 7, where we compare the standalone 10-year performance distribution of commodities to a 60-40 portfolio. Passive commodities exposure may thus be more appropriate for a tactical allocation, where success is based on the allocator's ability to time the market, rather than a strategic allocation.



Figure 7: Range of 10-year excess returns since 1972

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights.

Not All 'Alternatives' Are Diversifying

One consequence of the success of the 60-40 portfolio after 2008 is that many strategies marketed as "alternative" ended up resembling the equities and bonds, to which they were supposed to provide an alternative.

For private market investments, the correlation is masked by infrequent and irregular pricing mechanisms, but it is likely to be significant in the event of a big market downturn.⁵

For liquid investments, however, the correlation with traditional assets is easy to measure. A good example is "Risk Parity". The strategy was intended originally as a portfolio construction technique rather than an alternative investment. Nevertheless, the strategy has made its way into many institutions' allocations to alternatives, despite a correlation of more than 90% with 60-40 equity-bond portfolios since 2009.

The limitation of these strategies is that they are, for the most part, constrained in their ability to take short positions and the underlying drivers of their returns are often like those of traditional equity and bond investments.

⁵ Cliff Asness, Institutional Investor: Why Does Private Equity Get to Play Make-Believe With Prices?, 6 January 2023

The challenge allocators face in identifying genuinely diversifying alternatives is evident in the data. Of the 53 distinct strategy hedge fund categories tracked by Hedge Fund Research with returns back to 2009, only four have a correlation to a 60-40 equity-bond portfolio of 0.1 or less and 36 have a correlation of 0.5 or more (see Figure 8).



Figure 8: Hedge Fund Research strategy category correlations to a 60-40 portfolio since 2009

Source: Winton, Hedge Fund Research, as at 30 September 2023. HFRI and HFR categories have been filtered to remove duplicate exposures.

There is, however, a cluster of categories towards the bottom of Figure 8 that have demonstrated low correlation to equity and bond portfolios over this period. These categories mostly comprise systematic CTA strategies, of which trend following is the best known and most widely traded.

Systematic Trend Following

Trend-following CTA strategies are applied systematically to a diverse universe of equity, fixed income, commodity and currency markets. These strategies seek to generate returns by taking long positions in markets that are trending upwards and short positions in those that are trending downwards.

The strategy gains exposure to markets using futures contracts, which makes it highly flexible and cash efficient, as only a small portion of the value of the positions it takes needs to be posted as margin (typically 7% to 15% for a strategy operating with a targeted annualised volatility of 15%).

This means the strategy can be implemented as either: 1) a portfolio overlay; or 2) a fully funded investment, with non-margin cash balances earning interest. In both cases, the strategy's targeted volatility can – within reason – be tailored to investors' requirements.

Another benefit of trend following is that the strategy's systematic trading rules can be applied to historical market data to assess how it would have fared across a wide range of market environments.

In the following analysis, we create a backtest starting in 1972 for a medium-speed trend-following strategy applied to a diverse universe of major futures markets and OTC FX. The strategy allocates risk evenly across equity indices, fixed income, commodities and currencies and targets an annualised volatility of 15%.

To ensure that our analysis is not overly optimistic, we penalise the returns by reducing performance by 60% in up years prior to 2009. This is approximately when the strategy began being adopted widely by institutional investors, following its strong and diversifying performance during the 2008 Global Financial Crisis.

As Figure 9 shows, this penalisation results in performance prior to 2009 that is consistent with the performance realised since 2010: a long-term net Sharpe ratio of 0.6.⁶

Figure 9: Penalisation of simulated trend-following CTA returns



Source: Winton Capital Management Limited, as at 30 September 2023. Performance is net of a representative 1% annual management fee. The above results are based on a hypothetical trend-following strategy shown for research purposes only. They do not reflect actual trading results and are not representative of a strategy or investment product. Hypothetical performance has inherent limitations, some of which are disclosed in Appendix 2: Basis of Performance.

⁶ The Sharpe ratio is an investment's annualised return above the risk-free rate divided by its annualised volatility of returns.

Using the resulting simulation, we assess – as we did with commodities – the effect of adding a fully funded 10% trend-following allocation to a 60-40 equity-bond portfolio. The trend-following strategy exhibits zero average correlation to the 60-40 portfolio since 1972 and a higher annualised excess return (9.1% versus 4.1%). This low correlation and positive performance increases the long-term annualised performance of the 60-40 portfolio to 4.8%. To put this modest annual improvement in context: 0.7% compounded over 20 years increases the total value of a portfolio by 15%.

The left plot in Figure 10 shows how, like a passive commodities allocation, trend following would have helped during the challenging periods for 60-40 portfolios in the 1970s and early 1980s. However, the allocation also adds value across most other periods, delivering a controlled range of mostly positive investment outcomes relative to the original 60-40 portfolio.



Figure 10: Reallocating 10% of a 60-40 equity-bond portfolio to trend following

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. Trend-following performance is net of a representative 1% annual management fee. The above results are based on a hypothetical trend-following strategy shown for research purposes only. **They do not reflect actual trading results and are not representative of a strategy or investment product**. Hypothetical performance has inherent limitations, some of which are disclosed in Appendix 2: Basis of Performance. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights.

An interesting property of the trend-following strategy's return profile is highlighted in Figure 11. The strategy's performance is broadly consistent across most periods for the 60-40 portfolio. That said, many of trend following's strongest performance periods have coincided with the weakest periods for the 60-40 portfolio (mostly the 1970s and early 1980s).

During these periods, a 10% allocation to trend following would have added 1.3% to performance per annum on average or 11.8% over 10 years. This makes the strategy particularly attractive at the portfolio level, as it has delivered at the times it was needed the most.



Figure 11: Trend following during top and bottom decile 10-year periods for 60-40 portfolios

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. Trend-following performance is net of a representative 1% annual management fee. The above results are based on a hypothetical trend-following strategy shown for research purposes only. They do not reflect actual trading results and are not representative of a strategy or investment product. Hypothetical performance has inherent limitations, some of which are disclosed in the Performance Disclosures in the Appendix. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights.

Unlike passive commodities exposure, trend-following strategies show attractive performance properties in their own right. Figure 12 demonstrates how the strategy exhibits the same upwards drift over the long term as the 60-40 equity-bond portfolio, but with a narrower range of outcomes.



Figure 12: Range of 10-year excess returns since 1972

Source: Winton, Bloomberg, as at 30 September 2023. Based on monthly returns. Trend-following performance is net of a representative 1% annual management fee. The above results are based on a hypothetical trend-following strategy shown for research purposes only. They do not reflect actual trading results and are not representative of a strategy or investment product. Hypothetical performance has inherent limitations, some of which are disclosed in the Performance Disclosures in the Appendix. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights.

Conclusion

Asset allocation is difficult due to the variability of historical asset class returns and the uncertainty involved in forecasting returns many years ahead. These difficulties are compounded at turning points in the investment environment when strategies that worked best over the preceding period may not work as well in the future.

In this paper, we put the post-financial crisis performance of the long-only equity and bond portfolio in its historical context, which highlighted how exceptional recent returns have been. We then looked at ways that asset allocators can improve results in more challenging periods for equities and bonds.

First, we assessed the effect of adding passive commodities exposure. We found that commodities offered diversification at difficult times for the 60-40 equity-bond portfolio, but this diversification comes at a cost over the long run, with periods of severe underperformance.

Second, we highlighted how – after many years of strong performance for equity- and bond-like investments – there is now a lack of genuine alternative investment strategies beyond trend-following CTA strategies.

And third, we assessed the benefits of a trend-following CTA allocation. We found the strategy: performed strongly at difficult times for the 60-40 portfolio; improved the portfolio's overall long-term performance characteristics; and delivered a more controlled range of investment outcomes.

These results are promising for large institutional investors. Why? Because medium-term trendfollowing strategies trade slowly and incrementally the world's deepest and most liquid markets. This means that the strategy can be implemented efficiently and at a size that can make a real difference at the portfolio level.

Towards Implementation

Trend following is easy to understand and now well documented in the academic literature, yet realworld implementations are notoriously difficult to do well. One benefit of Winton having successfully traded trend following for more than 25 years is that we believe we have a clear sense of what matters in the design of the strategy. Moreover, we have seen first-hand why continual research and development across strategy design, execution, and risk management is so important.

In a follow-up paper, we will discuss implementation in detail; in particular, these two questions:

- How do you implement trend following at scale?
- What are the common mistakes to look out for when allocating to a trend-following strategy?

Please contact your Winton representative or email <u>investorservices@winton.com</u> if you would like to discuss the contents of this paper and/or receive relevant future publications.

About Winton

Winton is a quantitative investment management firm, founded by Sir David Harding in 1997 and headquartered in London. We are a leader in trend following, a style of systematic investment strategy we have pioneered for more than 25 years, and we count some of the world's largest institutional investors as clients. For more information, visit <u>www.winton.com</u>.

Appendix	1: Pe	rformand	ce Across	Environ	iments	and	l Loi	ng-T	'erm Cor	relat	io	ns	
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				Mean rolling 12-month excess returns: 1972 to September 2023							
	Equities (Eq)	Bonds (Bo)	Commodities (Com)	Trend (TF)	60%/40% Eq/Bo	54%/36%/10% Eq/Bo/Com	54%/36%/10% Eq/Bo/TF				
All periods	6.3%	2.5%	4.8%	9.9%	4.7%	4.6%	5.3%				
High inflation US CPI $\ge 4\%$	-0.2%	-2.1%	15.6%	12.0%	-1.0%	0.6%	0.4%				
Low inflation US CPI < 4%	9.7%	4.9%	-0.8%	8.8%	7.7%	6.8%	7.9%				
High interest rate Fed funds $\ge 4\%$	5.5%	2.0%	7.2%	10.7%	4.1%	4.4%	4.9%				
Low interest rate Fed funds < 4%	7.3%	3.1%	1.7%	8.9%	5.5%	5.0%	5.9%				
Positive equity S&P 500 ≥ 10%	17.3%	3.2%	5.2%	10.3%	11.6%	10.9%	11.5%				
Neutral equity S&P 500 ± 10%	-2.3%	0.9%	4.3%	8.7%	-0.8%	-0.4%	0.2%				
Negative equity S&P 500 \leq -10%	-23.2%	3.4%	4.6%	11.5%	-13.2%	-11.7%	-10.7%				
Positive commodity S&P GSCI ≥ 10%	6.4%	0.0%	25.6%	10.5%	3.8%	5.9%	4.5%				
Neutral commodity S&P GSCI ± 10%	8.8%	5.0%	-4.3%	7.7%	7.3%	6.2%	7.4%				
Negative commodity S&P GSCI ≤ -10%	1.9%	3.9%	-27.6%	12.1%	2.7%	-0.7%	3.7%				
Positive bond 10yr T-note ≥ 5%	5.6%	7.5%	-2.1%	9.7%	6.3%	5.4%	6.8%				
Neutral bond 10yr T-note ± 5%	8.2%	-2.9%	13.3%	9.5%	3.7%	4.5%	4.3%				
Negative bond 10yr T-note ≤ -5%	-6.5%	-12.8%	12.4%	18.0%	-8.9%	-7.0%	-6.3%				
Positive dollar Dollar index $\ge 5\%$	3.3%	2.3%	-0.6%	11.6%	2.8%	2.3%	3.7%				
Neutral dollar Dollar index ± 5%	8.8%	2.0%	1.2%	6.9%	6.1%	5.5%	6.2%				
Negative dollar Dollar index ≤ -5%	6.3%	3.2%	15.8%	11.9%	5.1%	6.1%	5.8%				
Positive 60-40 returns	11.9%	3.1%	4.6%	9.9%	8.4%	8.0%	8.6%				
Negative 60-40 returns	-18.1%	-0.1%	5.9%	10.0%	-11.1%	-9.7%	-9.0%				
Positive equity- bond correlation	7.2%	1.7%	7.2%	10.6%	4.9%	5.0%	5.5%				
Negative equity- bond correlation	5.0%	3.6%	1.5%	9.0%	4.5%	4.1%	5.0%				
			Long-term	correlations bas	ed on monthly re	eturns: 1972 to S	eptember 2023				
To equities	1.00	0.09	0.16	-0.04	0.96	0.95	0.94				
To bonds	0.09	1.00	-0.13	0.05	0.37	0.32	0.38				
To commodities	0.16	-0.13	1.00	0.04	0.11	0.33	0.12				
To 60/40 portfolio	0.96	0.37	0.11	-0.02	1.00	0.98	0.98				

Source: Winton, Bloomberg, FRED Economic Data St Louis Fed. Based on monthly returns. See Appendix 2: Basis of Performance for more information. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Trend-following performance is net of a representative 1% annual management fee. The above results are based on a hypothetical trend-following strategy shown for research purposes only. They do not reflect actual trading results and are not representative of a strategy or investment product. Hypothetical performance has inherent limitations, some of which are disclosed in the Performance Disclosures in the Appendix. Excess returns are calculated by deducting the return of the three-month US Treasury bill. Analysis assumes monthly rebalancing back to target weights for portfolios.

Appendix 2: Basis of Performance

Equities: S&P 500 Total Return Index from 1972 to 2023; S&P Composite Index total return compiled by Shiller from 1871 to 1971. Sources: Bloomberg, <u>Online Data Robert Shiller</u>.

Bonds: Bonds: US 10-Year Treasury note total return from 1971 to 2023 computed by Winton; total return computed using long interest rates compiled by Shiller from 1871 to 1970. Sources: Winton, Bloomberg, S&P, <u>Online Data Robert Shiller</u>.

Commodities: S&P GS Commodities Total Return Index. Source: Bloomberg, S&P.

Trend following: A simulation of a medium-term trend-following strategy back to 1972. The strategy uses a range of lookback windows spanning from weeks to months and is applied up to 120 futures and OTC FX markets. Market histories have been backextended to 1972, where possible (for example, inferring a futures return from a similar index or market), and new markets are introduced as and when futures prices are available. Trading incorporates a Winton estimate of transaction costs. The overall portfolio is geared to an annualised volatility of 15%, returns are penalised by 60% in up years prior to 2009, and an annual management fee of 1% has been deducted.

Hypothetical performance results have many inherent limitations, some of which are described below. No representation is being made that any account will or is likely to achieve profits or losses similar to those shown. In fact, there are frequently sharp differences between hypothetical performance results and the actual results subsequently achieved by any particular trading program.

One of the limitations of hypothetical performance results is that they are generally prepared with the benefit of hindsight. In addition, hypothetical trading does not involve financial risk, and no hypothetical trading record can completely account for the impact of financial risk in actual trading.

For example, the ability to withstand losses or to adhere to a particular trading program in spite of trading losses are material points which can also adversely affect actual trading results. There are numerous other factors related to the markets in general or to the implementation of any specific trading program which cannot be fully accounted for in the preparation of hypothetical performance results and all of which can adversely affect actual trading results.

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The HFR index returns are shown for illustration and performance comparison purposes only. They are not formal benchmarks and do not form part of the formal investment objectives or investment policy. It is not possible to invest in the indices. The indices shown are: i) those in the sub-section category of "multi-strategy" and represent an equal-weighting of single-manager funds that report to the HFR Database and satisfy the relevant HFR criteria for inclusion. It is selected as a comparison to other multi-strategy hedge funds; ii) an index representing the sub-category "systematic diversified" which comprises an equal-weighted index of single-manager funds that report to the HFR database and satisfy the relevant criteria for inclusion. It is selected as a comparison to diversified systematic hedge funds; and iii) an asset weighted composite index of single manager funds that report to the HFR database and have a minimum of \$50 million under management or \$10 million under management and a twelve month track record of active performance. The constituents are weighted according to the AUM reported by each fund for the period month. It is selected as a general comparison to the hedge fund industry. Please refer to the HFR website for further information https://www.hfr.com/hfri-indices-index-descriptions.