

Hedge Fund Industry Deep Dive

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In summary

- A resurgence in risk assets provided a significant tailwind to more long-biased and/or historically higher beta strategies, which were among the worst performing strategies in 2022.
- There are a handful of sub-strategies that delivered strong performance both in 2022 and 2023 - quant - stat arb was up 10.9% in 2023 and 12.7% in 2022. While macro - FIRV was up 10.9% and 8.4%.
- Five-year performance (CAR) for hedge funds now stands at 6.5%, comfortably outperforming bonds (-0.4%) but underperforming equities (+9.4%) from a total return perspective, however, outperforming equities from a risk-adjusted perspective (Sharpe of 0.7 vs 0.5).
- Dispersion has continued to fall and now sits at levels more in line with those observed pre-COVID.

*HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index.

**Bonds = S&P Global Developed Aggregate Ex Collateralized Bond (USD).

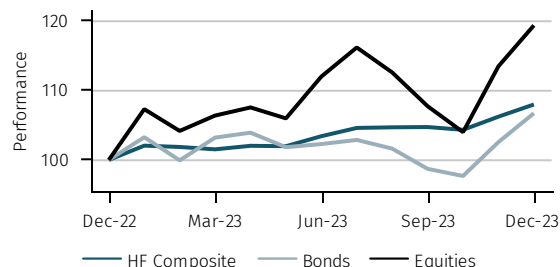
***Equities = S&P Global BMI.

All figures and charts use asset weighted returns unless otherwise stated. All Hedge Fund data is sourced from Aurum Hedge Fund Data Engine. Data included in this report is dated as at 18th January 2024.

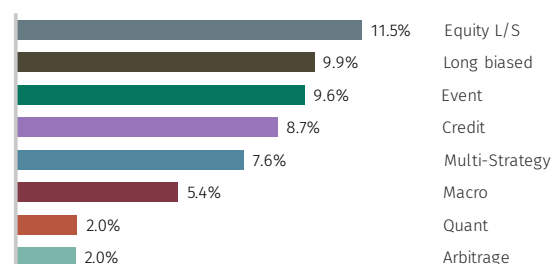
For definitions on how the Strategies and Sub-Strategies are defined please refer to <https://www.aurum.com/hedge-fund-strategy-definitions/>, and for information on index methodology, weighting and composition please refer to <https://www.aurum.com/aurum-strategy-engine/>

2023
Review

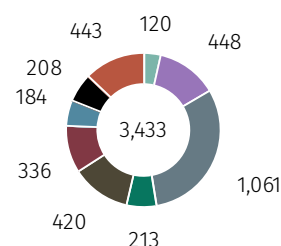
HF COMPOSITE VS INDICES (1 YR)



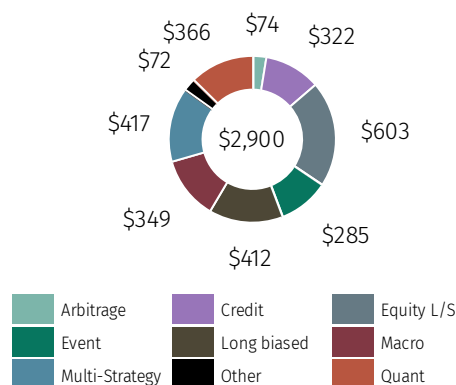
NET RETURN (1 YR)



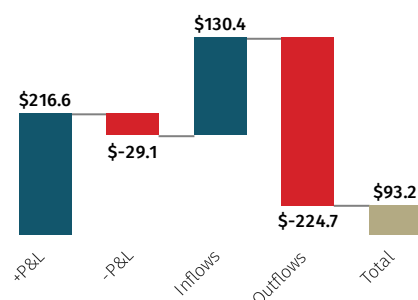
FUND COUNT – DEC 23



AUM (\$BN) – DEC 23



AUM CHANGE \$BN (1 YR)



2023 overview

Inflation, soft or hard-landings, conflict and the rise of AI

As highlighted in the review of H1, 2023, markets entered the year off the back of a turbulent 2022, with fresh hopes that 2023 would see a return to stability. However, inflation, the expected path of interest rates and the expected impact on global growth would prove to be dominating factors that determined investor and market sentiment throughout the year.

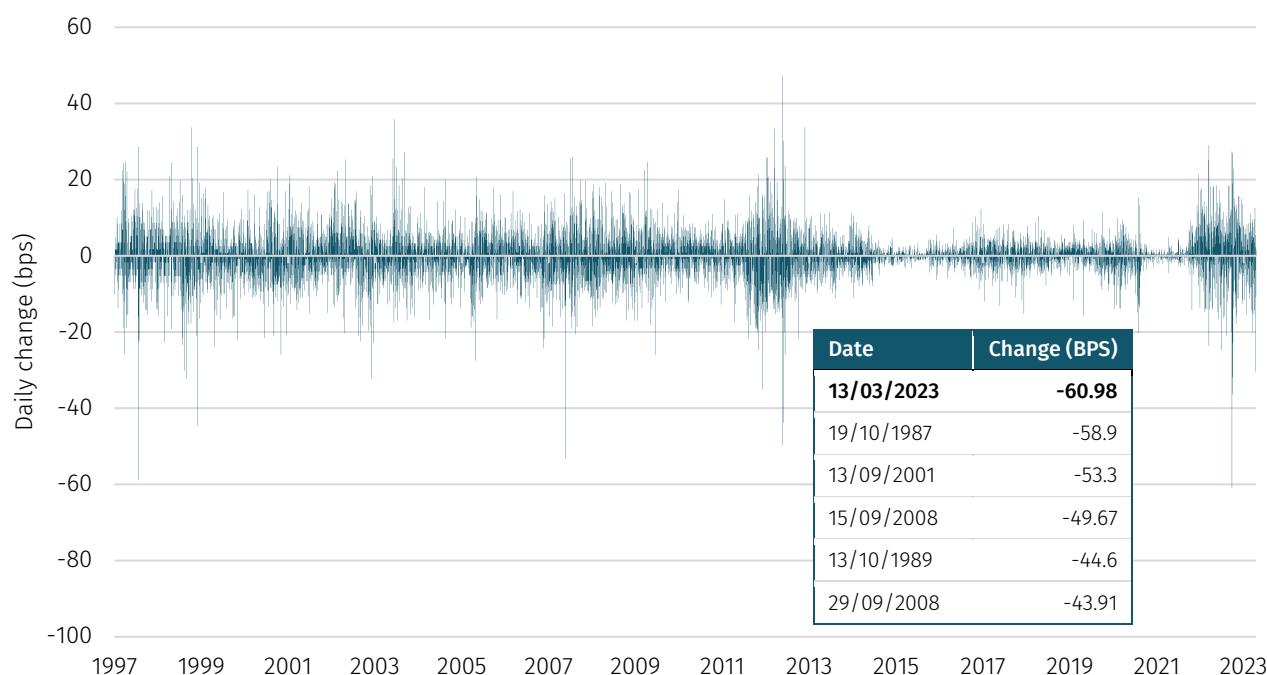
Risk assets started the year strongly, with significant gains in both equities and credits, while US and EU bond yields decreased. The rest of the first half of the year was anything but stable.

It was an encouraging start, with China reopening, economic figures pointing towards growth in the US and EU and declining inflation figures. Risk assets started the year strongly, with significant gains in both equities and credits, while US and EU bond yields decreased. The rest of the first half of the year was anything but stable. February was a challenging month for markets, while US inflationary concerns drove expectations for rate hikes from the Fed. March was marked by an unexpected banking crisis, which saw UBS acquiring Credit Suisse through regulatory intervention, while Silicon Valley Bank and Signature Bank experienced the second and third largest bank failures in US history. In response, US banks injected \$30bn into First Republic Bank and we saw coordinated global liquidity support from central banks.

In the run up to the banking crisis there was a high conviction view that was widely held by global macro hedge funds in particular, that there would be higher terminal rates in the US. Many macro funds, some quant macro funds and CTAs, were exposed to a large short rates position (short bonds) at the front-end of the curve. Unfortunately, the timing of the banking failures resulted in an exceptionally volatile month for those exposed to the trade, as the market adjusted to the Fed's pause in its rate hike cycle.

Whilst this was already covered in the review of H1, it is worth reiterating here given how important the event was for markets and the performance for particular hedge fund strategies. In the run up to the banking crisis there was a high conviction view that was widely held by global macro hedge funds in particular, that there would be higher terminal rates in the US. This view had been a strong driver of returns through 2022 and into February 2023. Many macro funds, some quant macro funds and CTAs, were exposed to a large short rates position (short bonds) at the front-end of the curve. The data releases in February and Powell's congressional testimony (suggesting a strong possibility of a 50bps hike), strengthened conviction in the trade. Unfortunately, the timing of the banking failures resulted in an exceptionally volatile month for those exposed to the trade, as the market adjusted to the Fed's pause in its rate hike cycle.

US 2Y TREASURY DAILY CHANGE (BPS)



Source: US Department of the Treasury

The chart above, already shared during the H1 review, is also worth highlighting as part of the lookback on 2023 as a whole. The moves in the 2y Treasury yield in March were extreme. It was the largest daily move since 1982, greater than Black Monday in 1987, 9/11, and throughout the Global Financial Crisis (GFC).

Equity markets rallied hard in the first half of the year, largely off the back of the pause in rate hikes, encouraging US economic data releases and resolution of the US debt ceiling standoff. US GDP growth was revised upwards. Meanwhile fixed income markets saw an increase in government bond yields.

Going into Q3, we saw fluctuating market dynamics in global equity markets. This began with a surge in July, driven by reduced inflation fears and optimistic US growth prospects as the IMF upgraded global growth forecasts. The Fed raised rates by 25bps with a message of reassurance by Jerome Powell about avoiding a 2023 recession and no further rate cuts planned for the year. However, optimism was then dented in August, as the Jackson Hole meeting reiterated the Fed's commitment to controlling inflation and that further rate increases may still be required going into 2024.

There was a sharp correction in equities over the remainder of the quarter (August-September). US Treasury yields hit their highest levels since 2007, the US dollar strengthened, while China's economic issues weighed on commodities, particularly base metals.

Q4 was marked by significant geopolitical events, including terror attacks by Hamas in Israel, leading to numerous kidnappings, fatalities and a substantial military response from Israel in Gaza. Yemen's Houthi rebels responded to the increased tensions across the region with rocket attacks on merchant ships in the Red Sea, prompting the US to deploy naval forces to the region. Attacks on ships around the Suez Canal led to fears that global supply chain would be disrupted. The ongoing conflict in Ukraine persisted with no signs of resolution, leading to the European Commission approving a new package of sanctions in December. Tensions in US/China relations continued, centred on trade disputes, AI technology and national security concerns. Key developments included the US imposing further restrictions on China's acquisition of semi-conductor chips, used by AI computers, and China's retaliatory introduction of export controls on graphite, which is used in EV batteries.

October saw the third consecutive month of declines in global equities, influenced by the Fed's communication and robust US economic data, heightening interest rate concerns. US Treasury yields rose, with the 10-year yield exceeding 5.0% for the first time since 2007, while the dollar continued its upwards trajectory. (Up for a third consecutive month). Everything then changed in the last two months of the year. November saw a massive surge in global equities and credit, a trend that continued into year-end. This huge shift in sentiment was driven by improving US CPI data significantly alleviating monetary tightening concerns, while mid-month the US Congress passed a bill that prevented a government shutdown. The shift in interest rate expectations negatively impacted the dollar, reversing previous gains, while bond yields in the US and Europe declined significantly, led by a drop in 10-year yields.

Markets review

2023 saw very strong performance for equities, returning 19.2%*** for the year, albeit with periods of high volatility, heavily driven by shifting sentiment around expectations for inflation, interest rates and global growth.

Global bonds** returned 6.7%, marginally underperforming the broader hedge fund universe (see below). As with equity markets, there was a high level of volatility, driven by the same economic forces. Correlations between bonds and equities remained relatively high, although the figure has come down over the previous year. It should be noted that over the last 24 months, equities and bonds are still negative, down 2.4% and 5.7% respectively, despite the gains of 2023.

As highlighted in the H1 report, the equities gain, particularly in the US has also been driven by a handful of names, primarily tech companies. In a CNBC interview Bernstein analyst Toni Sacconahi talked about, “the most concentrated market ever,” as ‘AI mania’ gripped the stock market. With the rapid adoption of large language models such as ChatGPT, Google Bard and Bing AI (which utilises GPT4 and the ability to combine it with web search for free), there has been a surge in interest in the stocks of anything AI related. Nvidia is the posterchild of AI, with its meteoric rise reflecting the market’s perception of the pivotal role that its technology will play in the rapid expansion of the AI space. The narrow rally fuelled by the ‘AI factor’, has been a difficult market for diversified investors to navigate. It also created issues for investors that are typically reliant on instruments linked to markets like the S&P500 for hedging purposes.

In the two-year period 2022-2023, the Magnificent Seven accounted for almost 60% of the gains in the S&P 500 index. Gains in other US large cap equities have been less impressive. The strongest months for equities came in November (+9.1%), January (+7.3%), June (+5.6%) and December (+5.2%), with a similar story surrounding each of these months. As indicated above, November’s bumper rise in equities and bonds and continued rally into year end came off the back of three months of consecutive negative performance (cumulative -10.4% for equities and -5.0% for bonds) where the narrative had moved from concerns about rates remaining higher for longer, to optimism that inflation was coming under control and interest rate expectations were more relaxed.

In other markets, Japanese equities saw strong performance, with the Nikkei 225 Asia’s best performing market in 2023, up and “touching 33-year highs.”ⁱ. However, China was the clear standout on the negative side, down both in the CSI and Hong Kong Hang Seng. EM was up on the year but well behind Europe and the US.

Government bond yields experienced a high level of volatility in 2023. As highlighted, the moves in the US 2-year bond in March were extreme. However, after May, the 2Y yield steadily rose as inflation concerns returned, reaching a high in September before steadily falling again into year end.

The US dollar index shifted with volatility through the year primarily driven by sentiment on inflation and rates and messaging from the Fed. The Japanese yen was weaker versus the US dollar over the year, while currencies such as sterling, and the euro strengthened.

In commodities, gold finished the year up, oil was marginally down, while natural gas fell significantly. On the agricultural commodities side, corn and wheat were also down on the year.

Hedge fund industry performance review

Asset growth

Seven of the eight hedge fund master strategies saw net growth in AUM, led by equity long/short, followed by multi-strategy.

Hedge fund assets – as measured by those funds reporting to Aurum’s Hedge Fund Data Engine – have grown by \$93.2bn since the end of 2022 to stand at \$2.9tn. This was driven by net positive performance (+\$187.5bn) and partially offset by outflows (-\$94.3bn). Seven of the eight hedge fund master strategies saw net growth in AUM, led by equity long/short, followed by multi-strategy. Equity long/short growth in AUM was exclusively driven by significant net positive P&L, which was offset by significant net investor outflows. Multi-strategy growth was predominantly driven by positive P&L, although was the only strategy to have had net positive investor inflows. The only other strategy to see total assets increase during the period by over \$10bn is Macro, driven by positive P&L and partially offset by net investor outflows. Quant was the only category to see a fall in assets, with investor outflows only partially offset by net positive P&L.

ⁱ Source: <https://www.cnbc.com/2023/12/29/asias-best-performing-market-of-2023-how-will-it-fare-in-the-new-year.html>

Headline performance

Equity long/short was also the strongest performing strategy returning 11.5% on an asset weighted basis and outperforming, with the headline figure dragged down by underperformance from quant (+2.0%), while multi-strategy funds were broadly in line with HF Composite figure.

The hedge fund industry was up 7.9% for the year on an asset weighted basis. This compares to the mean figure of 8.5%, suggesting that, on average, larger hedge funds have underperformed. The median performing hedge fund returned 7.2% for the year. The median performing hedge fund sub-strategies were credit – direct lending (ranked 18th out of 36 sub-strategies returning 8.0%) and arb-CB (19th: 8.0%). The largest constituent of the hedge fund universe was equity long/short (over 20% of assets), followed by multi-strategy and long biased both constituting ~14%. Equity long/short was also the strongest performing strategy returning 11.5% on an asset weighted basis and outperforming, with the headline figure dragged down by underperformance from quant (+2.0%), while multi-strategy funds were broadly in line with HF Composite figure.

Those strategies that performed strongly in 2022 in the higher volatility regime and risk-asset selloff were among the worst performing in 2023. Arb – Tail is down over 10%, Quant – CTA having returned over 15% in 2022, was down 3.8% in 2023.

A resurgence in risk assets provided a significant tailwind to more long-biased and/or historically higher beta strategies such as event – activist (+20.9%), long – equity (+14.4%), global equity (+14.3%), and long – other (14.2%). It should be noted that all of these strong performing areas were among the worst performing in 2022.

On the other end of the scale some of those strategies that performed strongly in 2022 in the higher volatility regime and risk-asset selloff are among the worst performing in 2023. Arb – Tail is down over 10%, quant – CTA having returned over 15% in 2022, was down 3.8% in 2023. Interestingly commodity strategies have also struggled during the year.

H1 performance was heavily skewed to the start of the year and at the end of Q2. Performance was then solid in June/July, flat to marginally negative for three months (during which time both bonds and equities sold off significantly), before rallying into year end alongside the rally in risk assets – standout months during the year were March (-0.3%), predominantly driven by a tough month for macro strategies (both macro – global macro and quant – CTA sub-strategies in particular) and – to a lesser extent – credit. October was also a down month (-0.4%) driven by negative performance across equity long/short, long biased, and event. This is covered in more detail below.

There are a handful of sub-strategies that delivered strong performance both in 2022 and 2023, so it is worth highlighting quant – stat arb, macro – FIRV, quant in particular. Quant – stat arb was up 10.9% in 2023 and 12.7% in 2022. Macro – FIRV was up 10.9% and 8.4% in 2022 and 2023 respectively.

Five-year performance (CAR) for hedge funds now stands at 6.5%, comfortably outperforming bonds (-0.4%) but underperforming equities (+9.4%) from a total return perspective, however, outperforming equities from a risk-adjusted perspective (Sharpe of 0.7 vs 0.5).

Five-year performance (CAR) for hedge funds now stands at 6.5%, comfortably outperforming bonds (-0.4%) but underperforming equities (+9.4%) from a total return perspective, however, outperforming equities from a risk-adjusted perspective (Sharpe of 0.7 vs 0.5).

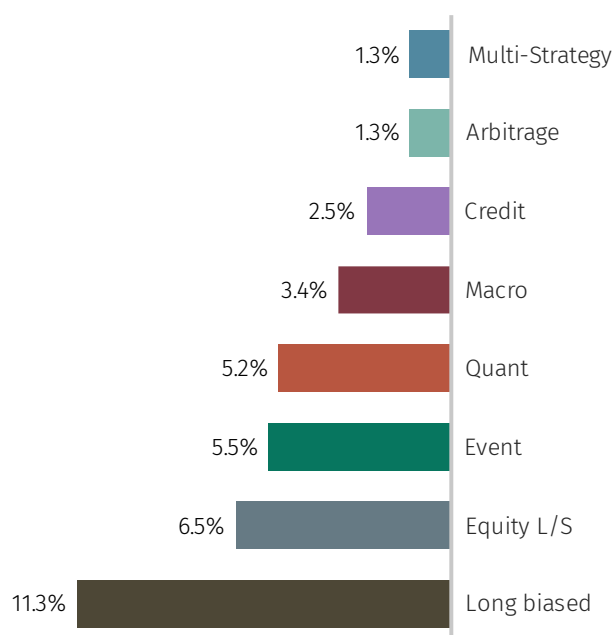
Dispersion

As can be seen in the following chart, dispersion between top and bottom decile performing hedge funds has fallen dramatically since the end of 2022, as has general risk-asset volatility. Dispersion sits at levels more in line with those observed pre-COVID.

10th – 90th PERCENTILE 12M ROLLING PERF. SPREAD¹



STANDARD DEVIATION (1 YR)



STRATEGY NET PERFORMANCE

	12M			3YR			5YR		
	AUM Weighted	Mean	Median	AUM Weighted	Mean	Median	AUM Weighted	Mean	Median
Equity L/S	11.51%	8.96%	8.03%	2.00%	3.65%	3.77%	7.53%	8.24%	7.84%
Long biased	9.94%	12.83%	11.96%	1.48%	2.54%	2.91%	6.68%	9.06%	8.74%
Event	9.61%	8.22%	6.35%	5.31%	4.77%	4.46%	8.09%	7.83%	6.41%
Credit	8.70%	8.79%	9.17%	5.07%	5.31%	5.03%	4.66%	5.42%	5.33%
Multi-Strategy	7.57%	7.48%	6.49%	9.36%	6.48%	6.27%	10.55%	8.75%	8.02%
Macro	5.37%	5.59%	4.99%	3.89%	5.15%	4.70%	5.63%	6.49%	6.38%
Quant	2.02%	2.03%	1.26%	6.30%	5.38%	6.00%	3.58%	4.96%	6.08%
Arbitrage	2.01%	1.29%	4.22%	2.91%	2.28%	3.40%	4.40%	5.34%	6.43%
HF Composite*	7.93%	8.54%	7.21%	4.40%	4.72%	4.62%	6.48%	7.73%	6.94%

Strategy Performance

Multi-strategy funds, which have been the long-term consistent performers (5y CAR of 10.6% with a Sharpe of 2.2), performed more in line with the median hedge fund in 2023

As indicated above, top performing strategies have been those that have sub-strategy components that typically exhibit a higher beta to risk assets. Equity long/short is the top performing headline strategy (+11.5%) with a number of sub-strategies among the top performers. Event (+9.6%) has been driven by the top performing sub-strategy event – activist (+20.9%) ranking 1st out of all 36 sub-strategies. Credit funds have also outperformed the broader hedge fund universe (+8.7%), driven by credit – multi (+10.0%), credit – strucLO (+9.2%) and credit – distress (+9.1%).

Multi-strategy funds, which have been the long-term consistent performers (5y CAR of 10.6% with a Sharpe of 2.2), performed more in line with the median hedge fund in 2023 (7.6% vs the median of 7.2%).

The worst performing strategy was arbitrage (+2.0%), driven by material underperformance from the arb – tail sub-strategy (-10.0%) and mediocre performance from arb – vol (1.3%). It is no surprise that tail hedging strategies would underperform in 2023 given the falling realised and implied volatility and negative beta associated with the strategy. Arb – vol strategies had performed well in the more elevated volatility regime in 2022, with 2023 a much more muted environment.

Quant (+2.0%) struggled due to underperformance from CTAs (quant – CTA: -3.8%) and quant macro (quant – macro: -1.4%). CTAs struggled in March (-6.1%) in particular with the massive move in interest rates. The negative attribution from CTAs and quant macro strategies was more than offset by stronger performance in statistical arbitrage, quant equity market neutral and risk premia strategies respectively (quant – stat arb: +10.9%, quant – RP: 10.6%, quant – EMN: 8.1%).

NET RETURN (1 YR)

Net Performance ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	12M
Equity L/S	3.50%	-1.16%	0.42%	0.80%	0.80%	1.68%	1.33%	-0.55%	-1.54%	-1.17%	3.99%	3.04%	11.51%
Long biased	5.07%	-2.99%	1.67%	0.02%	-2.04%	3.07%	3.00%	-2.16%	-2.74%	-2.42%	5.40%	4.21%	9.94%
Event	2.52%	-0.18%	-0.23%	0.04%	-0.96%	2.01%	1.53%	0.11%	-0.32%	-1.39%	3.31%	2.90%	9.61%
Credit	2.05%	0.37%	-0.40%	0.57%	0.29%	0.82%	0.97%	0.50%	0.55%	-0.36%	1.41%	1.62%	8.70%
Multi-Strategy	0.75%	0.68%	-0.04%	0.55%	0.24%	0.75%	0.43%	1.34%	1.10%	0.43%	0.66%	0.42%	7.57%
Macro	1.68%	-0.17%	-2.01%	0.09%	-0.12%	0.86%	1.23%	0.29%	0.51%	0.91%	0.48%	1.54%	5.37%
Quant	-1.17%	2.08%	-2.20%	1.03%	0.14%	1.18%	0.02%	0.86%	2.61%	0.50%	-1.74%	-1.18%	2.02%
Arbitrage	0.04%	0.52%	-0.20%	-0.05%	0.40%	-0.21%	0.34%	0.61%	0.70%	-0.02%	-0.46%	0.34%	2.01%
HF Composite*	2.04%	-0.18%	-0.33%	0.50%	-0.06%	1.40%	1.14%	0.08%	0.04%	-0.38%	1.80%	1.64%	7.93%
Bonds**	3.25%	-3.20%	3.25%	0.68%	-1.99%	0.44%	0.58%	-1.21%	-2.85%	-1.04%	4.96%	4.02%	6.67%
Equities***	7.26%	-2.90%	2.11%	1.09%	-1.46%	5.64%	3.72%	-3.08%	-4.29%	-3.44%	9.05%	5.16%	19.24%

Performance

Equity long/short

[\(see full equity long/short analytics pack here\)](#)

Equity long/short was the strongest performing (1st out of 8) of the master strategies over the period, returning 11.5%. Unsurprisingly, the majority of performance came from the big positive months in equities. January (+3.5% vs. +7.3% in equity markets), June (+1.7% vs 5.6%), July (+1.3% vs 3.7%), November (+4.0% vs. 9.1%) and December (+3.0% vs. 5.2%). Conversely, the worst performing months for equities (February: -2.9%, August: -3.1%, September: -4.3%, October: -3.4%) were all tough months for the strategy, as it returned -1.2%, -0.6%, -1.5% and -1.2% respectively.

Strong performance in the equity long/short space has been driven by multiple sub-strategies, with all the following outperforming the broader hedge fund universe: ELS – Global (+14.3%) ELS – US (+14.1%), ELS – Sector (+13.0%), ELS – EUR (+9.0%). From a regional perspective ELS – APAC (+3.3%) was a relative underperformer, at least in part driven by more challenged performance for China and Hong Kong equity markets.

As highlighted in the H1 review already, one of the significant drivers of performance (in the US in particular) has been the exceptional outperformance of a handful of stocks, with the ‘magnificent seven’ constituting a significant component of the index and of overall index returns for the year. Outside of this, performance has been less spectacular, with a number of funds’ relative success or failure having been a function of their relative exposure to these names.

Over the last five years, ELS – Global has been the top performing of the equity long/short sub-strategies (CAR: +9.0%, Sharpe: 0.7), with relative outperformance also in ELS – US (CAR: 8.4%, Sharpe: 0.6). It is interesting to note that none of the sub-strategies within equity long/short have outperformed broader equity markets over this period (CAR: 9.4%) although all have managed to deliver a higher Sharpe ratio with the exception of ELS – APAC (Sharpe of 0.4 versus Global Equities: 0.5). Relative to other hedge fund master strategies, equity long/short (CAR: +7.5%) is only outperformed by event (CAR: +8.1%) and multi-strategy (CAR: +10.5%).

As can be seen in the alpha/beta decomposition charts, a significant portion of equity long/short returns over the last 10 years appear to be attributable to beta, with this proportion looking to have increased significantly over the last year. The highest risk-adjusted returns over five years comes from ELS – FEMN (+0.9). This is not a significant surprise given these funds are typically run market neutral and often also run low equity factor risk. If one looks at the alpha/beta decomposition in the associated pack, it has the highest relative proportion of ‘alpha’ attribution out of all the sub-strategies, comprising 47% of cumulative returns over the last 10 years).

Equity long/short dispersion between top and bottom decile performers is the second highest among the master strategies, currently sitting at a 31.4% spread, however this is well within normal bounds and currently sits just under the strategy’s 10 year average.

Long biased

[\(see full long biased analytics pack here\)](#)

Long biased (+9.9%) ranks second out of the eight broad master strategy classifications and has been driven by a couple of sub-strategies in particular: long – equity (+14.4%), long – other (14.2%). Elsewhere long – div growth (+6.0%) underperformed the broader hedge fund universe, while long – commodities actually was down on the year (-4.7%) and the second worst performing of all hedge fund sub-strategies (ranking: 35/36).

The category has a high correlation with broader moves in risk assets, making outsized returns in January, June, July, November and December; all of these were months when global equity and bond markets also delivered significant positive returns. Similarly, during the tough months for equities and bonds (February, May, August-October) the long biased category also delivered negative returns. Diversified growth funds (long – div growth) typically are exposed to a mix of asset classes, so with strong global equities, strong global bonds and mixed commodity markets, the figure for the period appears to be in line with expectations.

One other thing worth highlighting is that long – equity still underperforms the broader equity markets over 5 years, delivering 8.9% vs 9.4%, although the median and mean performing funds outperform, suggesting that larger long – equity funds have underperformed vs their peers. Other interesting points to note are that over a 5 year period, not only have long biased funds underperformed, but they have also delivered a lower Sharpe ratio than broader equity markets. Diversified growth has been a particular area of disappointment, having had significant exposure to bond markets over this time period, which have struggled and not provided the expected diversification benefits anticipated.

The charts that look at the relative alpha/beta split of returns over the last 10 years (see accompanying pack) indicate that the beta factor is unsurprisingly the largest component driving returns, much higher than the broader hedge fund industry and the equity long/short strategy.

Dispersion is the highest relative to all other master hedge fund strategies, with the top-bottom decile currently at a 39.1% spread, which sits above its 10 year average. This also reflects the significant dispersion in the sub-strategy classifications themselves, covering areas including long commodities, multi-asset and equities across multiple regions, so one should not draw too much inference from this.

Event

[\(see full event analytics pack here\)](#)

Event returned 9.6% over the year, and ranked third out of the eight master fund strategy classifications. Performance has been overwhelmingly driven by the 'beta-heavy' sub-strategy: event – activist, which was in fact the top performing sub-strategy across the hedge fund universe (ranking 1/36) returning +20.9%.

At the high level, the event strategy's returns correlated highly with prevailing equity markets. Strong performance was delivered in January, June, July, November and December. As highlighted elsewhere in the report, these were all very strong months for global equities. Event had marginal down months in Feb/Mar, was down 1.0% in May (markets down 1.5%), and down 1.4% in October (markets down 3.4%). The strategy appeared to control downside volatility and capture a significant portion of the upside. When looking at the underlying sub-strategies, as indicated above, there is a massive disparity between event – activist and the rest. Event – M&A was up 7.0%, event – multi up 6.6% and event – opp up 6.5%; all 3 underperforming the broader hedge fund universe.

Over 5 years event has delivered a CAR of 8.1% and a Sharpe of 0.8. Absolute performance is less than equities, but considerably greater than bonds (which was negative over the period: CAR: -0.4%) and double the Sharpe. At the sub-strategy level event – multi has the highest Sharpe of 1.3, which in the context of the environment is strong. Relative to all other sub-strategies in the hedge fund universe only 3 rank higher in terms of risk adjusted returns (stat arb, FIRV and multi-strategy).

Whilst event – activist stands at the top of the tree for absolute returns for this year, over five years (CAR: +14.6%) and over ten years (CAR: +9.0%), it also has historically shown to have a material proportion of its returns attributable to beta (46% as per chart in analytics pack) and been susceptible to material drawdowns during adverse market events. It has also however, delivered material positive alpha. It is a strong turnaround for a sub-strategy that was one of the very worst performing across all industry sub-strategies in 2022.

Other points of note: the event – M&A strategy (as well as any other event strategies or multi-strategy funds that heavily incorporated M&A) struggled during the first part of the year. There were a number of large, widely-held merger deals that ran into difficulties, which hurt many funds across the event space (and some multi-strategy funds). May was a particularly difficult month, with the FTC suing to block a deal in the healthcare sector, leading to widespread de-risking. In the second part of the year there was a comeback for M&A as particular deals that had been blocked or subject to regulator scrutiny were passed or had positive results after legal challenges. It is interesting to note that during the market selloff between August-October, the event – M&A strategy was up 2/3 months and materially net positive over that period. By contrast, event – activist was down in each of those months.

Reviewing the alpha/beta decomposition suggests that event – M&A has had a majority of returns attributable to 'alpha' and only a small 'beta' element. Event – multi funds show an even higher proportion attributable to alpha, in line with the relatively high long-term Sharpe ratio the strategy exhibits as indicated above.

Credit

[\(see full credit analytics pack here\)](#)

Credit was up 8.7% for the year, ranking fourth out of the eight master strategy classifications. There was relatively tight dispersion of performance among the underlying sub-strategies, ranging from +7.1% for credit – RV, through to +10.0% for credit – multi. Overall, after a poor 2022, where all sub-strategies were down apart from credit – dir len, it has been a solid year for credit strategies.

Relative to all 36 hedge fund sub-strategies, credit sub-strategies rank as follows: credit – multi (11/36), credit – structLO (12/36), credit – distress (13/36), credit – struct (15/36), credit – dir len (18/36), credit – muni (20/36). Credit – RV and credit – muni were the only credit sub-strategies to underperform the broader HF Composite.

Looking at performance throughout the year, credit – multi was down only in March (-0.3%) and October (-0.5%). Throughout the rest of the year performance was consistent. The second best performing sub-strategy, structured credit long-only (credit – structLO) was up 9.2%, but was far more correlated to moves in broader risk assets. Relative value structured credit (credit – Struct) was more consistent, up 11/12 months and returned 9.0%. Direct lending (credit-dir len) was up every month, returning 8.0%. The muni-space was the most volatile of the credit sub-strategies (credit – muni) returning 7.8% and up 8/12 months with a high correlation to broader moves in risk assets. Credit – RV was the poorest performing of the credit sub-strategies, returning 7.1% for the year, but only down in three months of the year, not once drawing down beyond 1%.

Over the last five years, credit has underperformed the broader hedge fund universe, returning 4.7% versus 6.5%. This has also been delivered at a lower Sharpe of 0.4, versus 0.7. From a sub-strategy perspective, the highest returning was credit – multi (CAR: +6.3%), with a Sharpe of 0.7. The highest risk adjusted returns were in credit – dir len (Sharpe 1.1 with a CAR of 5.9%).

Reviewing the alpha/beta decomposition suggests that there is a reasonable proportion of overall returns attributable to alpha over the last ten years, although the risk-free rate and beta also are material drivers of overall returns. The underlying sub-strategy with the highest alpha attribution over ten years is direct lending (credit – dir len) at 60%, the lowest credit – structLO at -16%.

Multi-strategy

[\(see full multi-strategy analytics pack here\)](#)

Multi-strategy funds were up 7.6%, marginally underperforming the broader hedge fund universe (+7.9%). It was the fifth best performing out of the eight master fund strategy classifications. However, once again the strategy has remained as a reasonably consistent performer, up 11/12 months. The only month multi-strategy funds were down was March, where they lost just 0.4%. This was a period that was especially challenging due to the issues for regional US banks and for those hedge funds with macro exposure (both discretionary and quant macro), as a number of high profile multi-strats were known to have.

Over the longer timeframe, multi-strategy funds remain among the most consistent highest risk adjusted performers across the hedge fund space. Over five years, asset weighted returns are 10.5%, the strongest of any of the hedge fund master strategy classifications. With a Sharpe of 2.2, multi-strategy funds also are the highest ranked (1/36) when benchmarked to all hedge fund sub-strategy classifications. It is also interesting to note that multi-strategy funds have returned 7.7% over the last 10 years, with only quant – stat arb and event – activist sub-strategies outperforming when benchmarked to all 36 sub-strategies. It should be noted however that the multi-strategy space is dominated by a small number of very large firms, so when one looks at the mean and median figures for the last five years (8.8% and 8.0% respectively), while the figures are still strong and outperform the mean and median across the whole hedge fund universe (7.7% and 6.9% respectively), it suggests that there is a clear and sustained ‘size bias’ to multi-strategy returns over the long-term.

Where the multi-strategy return profile has also stood out, has been in the alpha/beta P&L decomposition analysis, which indicates that over the last ten years, the vast majority (69%) of returns has been attributable to alpha, which is more than any other master-strategy. Even when benchmarked to sub-strategies, only quant – stat arb (alpha of 74%) has a greater alpha attribution out of 36 sub-strategies.

Macro

[\(see full macro analytics pack here\)](#)

Macro strategies were up 5.4% in 2023, ranking sixth out of the eight master strategy classifications. The strategy was up in nine out of twelve months and underperformed the broader hedge fund composite. The primary driver of underperformance was macro – global (+2.1%) and macro – commods (2.6%), which between them account for well over half of the underlying assets in the strategy. Macro – global and macro – commods were also two of the poorest performing hedge fund sub-strategies across the broader universe, ranking 31st out of 36 and 30th/36 respectively. Relatively strong performance by macro – EM (+11.0%) and macro – FIRV (+10.9%) pushed the aggregated master strategy figure higher, with the two sub-strategies ranking 7th and 9th out of the 36 in the hedge fund universe.

Perhaps unsurprisingly, macro – EM had a higher correlation to moves in broad risk-assets, as it typically delivered strong performance during the ‘risk-on’ months (in particular Jan, Jun, July, Nov, Dec) and weaker or negative performance during the sell-off periods (Feb and Aug-Sep in particular). By contrast, it was a solid year for fixed income relative value (macro – FIRV), up every month of the year, in spite of some significant volatility, particularly in March.

As covered at the start of the report, macro managers were wrong-footed by the Q1 banking crisis that saw the collapse of several US regional banks and Credit Suisse. Up to this point, many funds had been positioned for higher interest rates in the US. The short fixed income trade had been a significant driver of returns in 2022 as inflation figures hit multi-decade highs and central banks engaged in the most aggressive monetary policy tightening seen in a generation. Data releases in February and Chair Jerome Powell’s congressional testimony suggested further tightening and increased macro conviction in this trade. Unfortunately, as the banking crisis unfolded, it led to some of the highest volatility ever seen in a number of trades related to this thematic view ([see chart at the front of this report re: US 2Y Treasury daily change](#)). Macro – global was the hardest hit, losing 3.4% in March and then recovering this drawdown through the rest of the year.

Over the last five years, macro ranks fifth out of the eight master hedge fund classifications (CAR: +5.6% and Sharpe of 0.7). This compares with broader industry figures of 6.5% and 0.7. Global macro was one of the strategies that managed to perform strongly in 2022 during the market downturn, but gave back some P&L in H1 2023. When looking at the sub-strategies, macro-commods has been the strongest performer (CAR: +9.1% and Sharpe of 1.0) and is one of the strongest sub-strategy performers across the industry and one of only a handful of sub-strategies delivering a 5y Sharpe above 1.0. Fixed income relative value (macro – FIRV) trading delivers among the most consistent high Sharpe return streams, with a five year Sharpe of 2.1 (only multi-strategy funds have delivered a higher Sharpe over that timeframe) as well as returns above the hedge fund industry average (CAR: 7.8% versus 6.5%). Global macro has a five year CAR of 5.9% and Sharpe of 0.8 and importantly has delivered this with a consistently low to negative beta to risk assets. Emerging market macro (macro – EM) has a five year CAR of just 2.9% and Sharpe 0.1.

When looking at alpha/beta P&L decomposition over the last 10 years, the master macro strategy indicates a material proportion of returns attributable to alpha (43%, but also has significant attribution from the risk free rate – 44% – and only 13% attributable to beta). However, when one looks at the underlying sub-strategies there are very different stories. Macro – FIRV has 61% of returns attributable to alpha, 9% beta and 30% to interest rates. Macro – Global indicates 57% alpha, 45% interest rates and -2% beta. These figures also give some idea as to the role played by an allocation to strategies such as global macro as part of a diversified hedge fund portfolio allocation, as the potential diversification benefits can be significant. By stark contrast, the attribution analysis suggests that the primary drivers of returns over the last 10 years for Macro – EM to be primarily risk-free interest rates and beta, with negative alpha.

Quant

[\(see full quant analytics pack here\)](#)

Quant strategies were up only 2.0% in 2023, ranking seventh out of the eight master strategy classifications. It was the only master strategy classification to have negative performance in the huge January rally in risk assets, while on the flip side it was up strongly in February during the equity/bond sell-off. A significant driver of this figure was the sub-strategy quant – macro, which was itself heavily driven by some extremely large fund constituents that had a heavy positioning short-equities. Quant also struggled in March in the wake of the US banking crisis and record move in rates, which had a particularly detrimental impact on quant – macro and quant – CTA sub-strategies (down 1.8% and 6.1% respectively). The master strategy then delivered seven consecutive months of positive performance, before being hit in the last two months of the year, down 1.7% and 1.2% in November and December. Once again, quant-macro (-4.7%, -3.1%) and quant – CTA (-3.4%, -0.5%) were the main detractors.

While the headline figure of +2.0% for the year for quant was relatively poor, there was significant dispersion among the sub-strategy components. Leading the way was the quant – stat arb sub-strategy (+10.9%) that had positive performance in nine out of the twelve months, losing 0.5% in January (as equity markets rallied 7.3%) and 1.3% in December (as equities rallied 5.2%) and marginally down in May. Quant – stat arb also performed relatively well when benchmarked across all of the industry sub-strategies, ranking 8th/36. It should be noted however, that the median returning fund was only up 7.0%, so there is a substantial size bias in the quant – stat arb peer group. Note: during the next strategy review update period, a new sub-strategy classification will be added to the quant group quant – multi-strat. There are small number of large, typically well resourced quantitative funds, which typically deploy the majority of their risk in equity statistical arbitrage strategies, hence their inclusion in the quant – stat arb sub-strategy; however, these funds also allocate to one or more of the other quant strategy areas, in particular quant-macro/CTA and some also have exposure to areas such as volatility trading. Given the disparity in AUM associated with these strategies relative to AUM in ‘pure’ equity-stat arb, separating these funds will give a cleaner picture of the peer-group and should lessen the disparity in the weighted average performance and the median in the future.

As perhaps one would expect, risk-premia strategies (Equity – RP) did relatively well (+10.6%) in a market environment where global equities performed well and global bonds recovered, posting particularly strong returns in January, June, November and December, all months that experienced an exceptional surge in risk-assets. The strategy was however, resilient to the downside posting just three sub one percent drawdowns during the period.

As already mentioned, it was a year to forget for quant – macro (-1.4%) and quant – CTA (-3.8%), both sub-strategies having performed relatively well in 2022 during a period of significant stress for equities and bonds. Interestingly these strategies have continued to perform well during the most stressful periods for risk assets. For example in the large risk-asset sell-offs in February, May and the period August-October, both strategies either performed very strongly or had only marginal drawdown. Whilst the headline figures are negative, the continued potential diversification and hedging benefits of the strategies remain apparent.

Quant – EMN was up 8.1%, ranking third out of the five quant sub-strategies and 16th/36 when benchmarked to all the sub-strategies in the hedge fund universe.

Over the longer term, quant – stat arb has continued to perform strongly (CAR: 9.4% over 5 years) with a high Sharpe (1.8). Not only is this the top performing of the quant sub-strategies, but also ranks 4th/36 across all hedge fund sub-strategies across the universe. From a risk-adjusted perspective, only fixed income relative value (macro – FIRV) and multi-strategy have delivered a higher Sharpe. Longer-term CAR and Sharpe ratios for the other quant sub-strategies all underperform the broader hedge fund universe. CTAs have a 5y CAR of 5.5% and a Sharpe of 0.4, however, as indicated above, they have remained negatively correlated to equities and bonds.

When looking at the alpha/beta attribution analysis, quant – stat arb indicates a very high (among the highest across all the industry sub-strategies) alpha component, close to zero beta. Given the strategy is typically constructed to have minimal exposure to generic risk factors, this result is a significant positive and indicates the strategy is behaving in line with its goals. The alpha in quant – EMN is also relatively strong – again, given they are typically run market neutral with low beta as part of its construction, the results are consistent with expectations. CTAs have shown a negative beta attribution and quant macro a low beta, once again supporting their place as potentially strong diversifying strategies. Risk premia (quant – RP) unsurprisingly exhibits by far the strongest ‘beta attribution’ component to overall returns, as well as negative alpha.

Arbitrage

Arbitrage strategies [\(see full arbitrage strategies analytics pack here\)](#) were up 2.0% over the year, ranking last out of the eight master fund strategies. The strategy was down in five of the twelve months. There was little volatility, with the largest up month occurring in September (+0.7%) and the largest down month occurring in November (-0.5%). Under the surface however, there was a wider story among the sub-strategies: the best performing was arb – opp (Opportunistic arbitrage strategies), which was up 8.1% during the period, followed by arb – CB (convertible bond arbitrage) up 8.0%, both marginally outperforming the broader HF Composite (+7.9%) with a much lower level of volatility. On the flip side, it was a much more challenging period for volatility arbitrage (arb – vol), returning just 1.3% as implied and realised volatility levels fell. This was one of a handful of sub-strategies that had performed well in 2022 during a very tough period for global markets. Unsurprisingly, the story for tail-protection strategies (arb – tail) was more extreme, having delivered positive returns in 2022, the large rally in risk assets and declining volatility presented significant headwinds, with the sub-strategy down 10.0% for the year.

Arb – opp was consistent and had a very low level of volatility, delivering ten up months and just two negative months, both with drawdowns of less than 0.4%. The strongest months were January and December (up 1.8% and 1.5% respectively), both very strong months for risk assets. However as indicated above, the drawdowns were minimal. During the worst months for risk assets (February, May, August-October) the sub-strategy only had one month. Focusing on the August-October period equities were down over 10% and bonds were down over 5%, while arb – opp was up two out of the three months and lost just 0.4% in October. Similarly, arb – CB was up ten out of the twelve months, losing just a single basis point in Feb and 1.4% in October (a month where all 3 of the HF Composite Index, bonds and equities were negative).

Over the last five years, arbitrage is ranked seventh out of the eight master strategy classifications (CAR: 4.4%), with only quant funds having performed worse over the period (CAR: 3.6%). Over a ten-year period, they rank the lowest (CAR: 2.6%). From a sub-strategy perspective, consistent with the point above, there is quite a large dispersion in sub-strategy performance. Arb – opp has performed relatively well over the last five years, with a CAR of 9.4% and a Sharpe of 1.0. This also ranks it as one of the better performing hedge fund sub-strategies across the universe (3rd/36), with only the event – activist and multi-strategy categories outperforming. Multi-strategy funds have delivered a higher Sharpe, but arb – opp outperforms event – activist from a risk adjusted perspective and with a considerably greater proportion of returns attributable to alpha vs beta. As with some other strategies that typically position to be market neutral, the realised betas to bonds and equities is low/close to zero by design, so these results are consistent with objectives. Arb – CB performs in the top half of hedge fund sub-strategies over five years, returning a CAR of 7.1% relative to 6.5% for the HF Composite, delivering a Sharpe of 0.9 vs 0.7. Interestingly the alpha attribution appears to be considerably less than arb – opp, with the majority of returns attributable to a combination of risk-free interest rate and beta. Five year returns for arb – vol are muted at just 2.8% and a Sharpe of just 0.2. Arb – tail has been negative (CAR: -2.2%) although as a hedging strategy has typically delivered returns during the months when one would hope, i.e. in periods of spiking volatility and risk-asset sell-off (e.g. in certain months in 2022 and 2020 in particular).

SUB-STRATEGY – NET PERFORMANCE¹

	12M			3YR			5YR		
	AUM Weighted	Mean	Median	AUM Weighted	Mean	Median	AUM Weighted	Mean	Median
Event - Activist	20.92%	14.56%	16.73%	9.04%	7.79%	8.05%	14.55%	12.76%	12.10%
Long - Equity	14.42%	13.27%	12.79%	1.26%	2.00%	3.10%	8.94%	9.80%	9.48%
ELS - Global	14.25%	11.27%	9.67%	4.22%	3.82%	3.38%	8.97%	9.28%	9.13%
Long - Other	14.15%	24.95%	15.63%	3.61%	4.93%	4.45%	7.18%	9.22%	6.30%
ELS - US	14.14%	12.21%	12.21%	3.22%	5.53%	4.56%	8.38%	9.60%	8.88%
ELS - Sector	12.97%	10.10%	8.54%	-0.96%	3.39%	3.68%	7.43%	9.83%	8.49%
Macro - EM	10.96%	10.51%	10.23%	0.42%	1.96%	0.98%	2.87%	4.78%	4.07%
Quant - Stat Arb	10.88%	7.23%	6.95%	11.06%	6.60%	11.93%	9.38%	6.42%	7.84%
Macro - FIRV	10.85%	12.01%	9.75%	6.75%	4.55%	4.60%	7.80%	6.00%	6.43%
Quant - RP	10.57%	10.68%	10.61%	6.27%	8.13%	8.34%	3.02%	3.42%	4.89%
Credit - Multi	9.95%	8.57%	8.53%	6.73%	6.55%	5.71%	6.31%	7.15%	7.51%
Credit - StrucLO	9.17%	11.16%	10.28%	1.12%	3.98%	3.61%	1.97%	4.44%	4.10%
Credit - Distress	9.12%	8.93%	10.10%	6.63%	7.05%	5.44%	5.56%	6.53%	5.35%
ELS - EUR	8.98%	6.77%	5.88%	4.32%	3.75%	3.68%	6.27%	5.28%	6.27%
Credit - Struct	8.95%	10.82%	11.25%	5.11%	5.35%	6.54%	3.43%	3.64%	5.20%
Quant - EMN	8.09%	8.20%	7.67%	8.55%	7.12%	6.45%	2.16%	3.90%	5.61%
Arb - Opp	8.07%	5.06%	7.56%	7.08%	5.34%	6.35%	9.39%	8.57%	8.99%
Credit - Dir Len	8.04%	6.55%	7.37%	6.36%	6.07%	4.85%	5.85%	6.11%	4.98%
Arb - CB	7.97%	7.85%	7.19%	3.40%	4.50%	3.03%	7.06%	7.93%	7.18%
Credit - Muni	7.78%	9.21%	8.46%	1.13%	4.63%	5.67%	4.05%	6.32%	7.63%
Multi-strategy	7.57%	7.48%	6.49%	9.36%	6.48%	6.27%	10.55%	8.75%	8.02%
ELS - FEMN	7.28%	6.91%	3.93%	4.87%	4.05%	1.63%	6.72%	5.33%	3.09%
ELS - Other	7.19%	8.68%	8.47%	2.59%	4.47%	5.72%	7.17%	6.14%	7.87%
Credit - RV	7.09%	7.25%	7.04%	2.79%	3.73%	3.92%	4.19%	5.27%	5.48%
Event - M&A	7.03%	5.02%	5.43%	5.09%	4.53%	4.57%	5.57%	5.39%	5.42%
Event - Multi	6.62%	6.35%	5.73%	5.93%	3.60%	3.88%	7.22%	6.38%	4.88%
Event - Opp	6.45%	7.23%	6.80%	1.32%	3.18%	3.45%	5.76%	6.64%	6.46%
Long - Div Growth	6.02%	7.74%	6.67%	0.46%	1.17%	0.94%	4.05%	4.51%	4.34%
ELS - APAC	3.29%	2.86%	3.81%	-1.34%	0.91%	3.34%	5.43%	6.79%	7.43%
Macro - Commods	2.60%	0.52%	-0.34%	10.30%	11.71%	8.72%	9.13%	10.46%	9.29%
Macro - Global	2.12%	3.35%	2.57%	3.81%	4.72%	4.70%	5.90%	6.14%	6.10%
Arb - Vol	1.29%	4.84%	3.59%	2.79%	4.52%	4.31%	2.79%	5.44%	5.47%
Quant - Macro	-1.41%	0.98%	1.13%	3.24%	1.41%	2.26%	1.16%	3.17%	1.93%
Quant - CTA	-3.76%	-1.37%	-1.48%	6.17%	5.31%	6.00%	5.54%	5.88%	6.41%
Long - Commods	-4.74%	-2.34%	-3.47%	11.11%	10.73%	8.41%	7.05%	7.16%	10.26%
Arb - Tail	-10.03%	-12.34%	-9.55%	-3.90%	-5.45%	-1.65%	-2.21%	-0.70%	3.28%
HF Composite*	7.93%	8.54%	7.21%	4.40%	4.72%	4.62%	6.48%	7.73%	6.94%

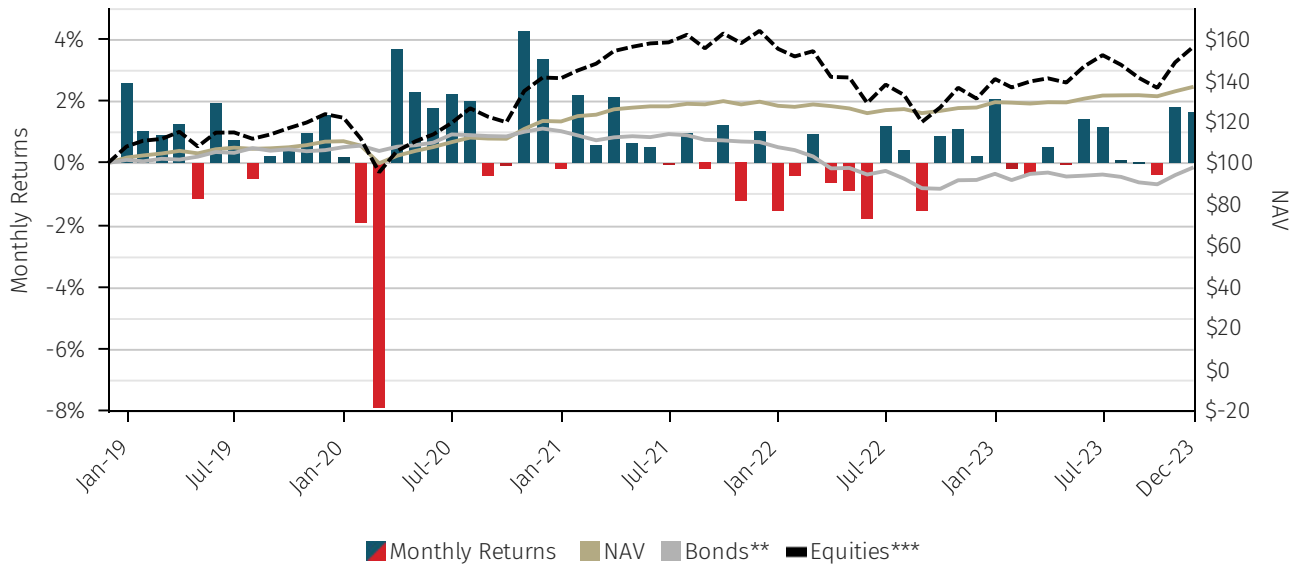
NET RETURN (1 YR) - SUB-STRATEGY

Net Performance ¹	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	12M
Event - Activist	6.42%	-0.22%	-0.18%	-0.09%	-1.52%	5.13%	3.11%	-1.48%	-1.77%	-3.84%	7.36%	7.07%	20.92%
Long - Equity	6.44%	-3.13%	1.29%	0.26%	-1.29%	4.72%	3.59%	-2.73%	-3.30%	-3.05%	7.21%	4.38%	14.42%
ELS - Global	3.41%	-0.81%	1.38%	1.15%	0.81%	1.95%	1.60%	0.15%	-1.65%	-0.64%	3.70%	2.50%	14.25%
Long - Other	5.98%	-2.22%	1.83%	0.63%	-2.56%	3.12%	2.99%	-1.35%	-3.06%	-3.60%	5.37%	6.92%	14.15%
ELS - US	3.62%	-0.12%	0.63%	0.70%	1.14%	2.93%	1.20%	-0.24%	-2.32%	-1.50%	4.64%	2.85%	14.14%
ELS - Sector	3.91%	-1.98%	-0.37%	1.32%	1.75%	1.11%	1.37%	-1.33%	-2.18%	-2.23%	5.60%	5.74%	12.97%
Macro - EM	3.46%	-1.55%	-0.97%	-0.10%	-0.09%	3.12%	2.06%	-0.80%	-1.20%	-0.08%	3.21%	3.62%	10.96%
Quant - Stat Arb	-0.52%	3.03%	0.04%	0.51%	-0.08%	2.15%	0.06%	1.28%	2.31%	1.27%	1.72%	-1.31%	10.88%
Macro - FIRV	1.86%	0.77%	0.17%	0.64%	0.40%	1.11%	1.00%	0.78%	0.58%	0.97%	0.99%	1.10%	10.85%
Quant - RP	2.41%	-0.20%	0.63%	0.82%	-0.79%	2.69%	0.97%	0.73%	0.38%	-0.82%	2.16%	1.18%	10.57%
Credit - Multi	1.60%	0.85%	-0.34%	0.83%	0.76%	0.59%	0.66%	0.64%	1.84%	-0.53%	0.97%	1.70%	9.95%
Credit - StructLO	2.57%	-0.27%	0.06%	0.85%	-0.13%	0.64%	1.14%	0.44%	-0.25%	-0.49%	2.25%	2.05%	9.17%
Credit - Distress	2.86%	0.30%	-1.08%	0.27%	0.34%	1.55%	1.00%	0.56%	0.22%	-1.06%	1.71%	2.17%	9.12%
ELS - EUR	1.99%	0.23%	0.33%	0.95%	0.70%	0.94%	-0.02%	0.29%	-0.29%	-0.15%	2.47%	1.24%	8.98%
Credit - Struct	1.37%	0.68%	-0.75%	0.65%	0.33%	0.67%	1.47%	0.94%	0.71%	0.03%	1.28%	1.24%	8.95%
Quant - EMN	-0.70%	0.91%	1.82%	-0.35%	-1.33%	0.33%	0.54%	1.54%	2.02%	1.51%	1.91%	-0.32%	8.09%
Arb - Opp	1.84%	0.63%	-0.39%	0.41%	0.79%	0.65%	0.66%	0.77%	0.44%	-0.37%	0.93%	1.45%	8.07%
Credit - Dir Len	1.09%	0.49%	0.38%	0.69%	0.42%	0.85%	0.79%	0.35%	0.73%	0.43%	0.62%	0.91%	8.04%
Arb - CB	2.75%	-0.01%	0.13%	0.30%	0.57%	0.86%	0.60%	0.12%	0.24%	-1.38%	1.18%	2.40%	7.97%
Credit - Muni	3.63%	-2.01%	1.55%	0.49%	-0.24%	0.46%	0.42%	-1.26%	-2.79%	-1.38%	6.32%	2.68%	7.78%
Multi-strategy	0.75%	0.68%	-0.04%	0.55%	0.24%	0.75%	0.43%	1.34%	1.10%	0.43%	0.66%	0.42%	7.57%
ELS - FEMN	0.79%	0.07%	1.19%	0.98%	0.12%	1.47%	0.07%	0.45%	-0.39%	-0.11%	2.03%	0.39%	7.28%
ELS - Other	3.90%	-1.69%	-0.95%	0.38%	-1.74%	2.63%	2.48%	-0.60%	0.22%	-1.30%	2.37%	1.45%	7.19%
Credit - RV	2.74%	0.29%	-0.70%	0.37%	-0.06%	0.65%	0.96%	0.39%	0.30%	-0.39%	1.10%	1.27%	7.09%
Event - M&A	0.06%	-0.06%	0.09%	0.24%	-2.65%	1.27%	0.99%	2.67%	1.18%	-0.49%	1.86%	1.75%	7.03%
Event - Multi	1.13%	-0.06%	0.27%	0.12%	-0.22%	1.06%	0.85%	0.35%	0.42%	-0.15%	1.33%	1.33%	6.62%
Event - Opp	2.41%	-0.38%	-1.29%	-0.04%	-1.25%	1.16%	1.46%	0.42%	-0.86%	-1.78%	4.09%	2.53%	6.45%
Long - Div Growth	4.01%	-2.84%	2.19%	-0.25%	-2.52%	1.28%	2.15%	-1.74%	-2.28%	-1.78%	4.02%	4.02%	6.02%
ELS - APAC	5.26%	-3.25%	0.68%	-1.48%	-1.21%	1.36%	2.60%	-1.75%	-0.76%	-0.36%	2.37%	0.07%	3.29%
Macro - Commods	1.85%	-2.19%	1.15%	0.43%	-0.65%	-1.37%	2.93%	0.28%	0.26%	-1.20%	0.65%	0.53%	2.60%
Macro - Global	1.08%	0.14%	-3.42%	-0.10%	-0.25%	0.37%	0.89%	0.43%	1.00%	1.38%	-0.54%	1.22%	2.12%
Arb - Vol	-0.42%	0.41%	0.45%	-0.22%	0.42%	-0.52%	0.32%	0.56%	0.49%	0.32%	-0.47%	-0.05%	1.29%
Quant - Macro	-3.52%	3.92%	-1.78%	1.37%	-0.39%	0.44%	-0.07%	2.05%	3.18%	1.58%	-4.70%	-3.07%	-1.41%
Quant - CTA	-0.65%	1.27%	-6.06%	1.67%	1.60%	1.25%	-0.41%	-0.62%	3.11%	-0.83%	-3.35%	-0.48%	-3.76%
Long - Commods	0.12%	-4.27%	-0.30%	-0.60%	-4.88%	3.37%	5.73%	-0.46%	-0.52%	-0.45%	-1.25%	-0.91%	-4.74%
Arb - Tail	-4.60%	1.21%	-1.49%	-0.81%	-0.39%	-2.19%	-0.36%	1.06%	2.04%	1.45%	-4.42%	-1.77%	-10.03%
HF Composite*	2.04%	-0.18%	-0.33%	0.50%	-0.06%	1.40%	1.14%	0.08%	0.04%	-0.38%	1.80%	1.64%	7.93%
Bonds**	3.25%	-3.20%	3.25%	0.68%	-1.99%	0.44%	0.58%	-1.21%	-2.85%	-1.04%	4.96%	4.02%	6.67%
Equities***	7.26%	-2.90%	2.11%	1.09%	-1.46%	5.64%	3.72%	-3.08%	-4.29%	-3.44%	9.05%	5.16%	19.24%

NET RETURN (5 YR) PERIOD TO DECEMBER 2023 - SUB-STRATEGY¹

Performance	2023	2022	2021	2020	2019	5Yr CAR	5Yr Vol	5Yr Sharpe
Event - Activist	20.92%	-10.04%	19.19%	23.04%	23.64%	14.55%	15.50%	0.82
Multi-strategy	7.57%	8.91%	11.64%	15.05%	9.70%	10.55%	3.65%	2.19
Arb - Opp	8.07%	2.79%	10.51%	19.18%	7.08%	9.39%	6.86%	1.04
Quant - Stat Arb	10.88%	12.68%	9.65%	10.39%	3.51%	9.38%	3.81%	1.81
Macro - Commods	2.60%	11.73%	17.07%	9.72%	5.14%	9.13%	6.80%	1.01
ELS - Global	14.25%	-9.10%	8.99%	16.52%	16.53%	8.97%	9.39%	0.74
Long - Equity	14.42%	-17.64%	10.17%	19.62%	23.56%	8.94%	15.62%	0.49
ELS - US	14.14%	-10.46%	7.61%	15.67%	17.57%	8.38%	10.29%	0.63
Macro - FIRV	10.85%	8.41%	1.22%	9.77%	9.02%	7.80%	2.64%	2.05
ELS - Sector	12.97%	-14.33%	0.37%	26.11%	16.79%	7.43%	12.37%	0.47
Event - Multi	6.62%	0.96%	10.44%	9.34%	9.04%	7.22%	3.84%	1.28
Long - Other	14.15%	-11.94%	10.65%	9.11%	16.55%	7.18%	13.78%	0.42
ELS - Other	7.19%	-3.61%	4.51%	12.24%	16.67%	7.17%	10.80%	0.50
Arb - CB	7.97%	-4.68%	7.41%	16.99%	8.76%	7.06%	5.26%	0.92
Long - Commods	-4.74%	15.10%	25.10%	-4.25%	7.05%	7.05%	15.01%	0.39
ELS - FEMN	7.28%	2.55%	4.83%	7.32%	11.86%	6.72%	4.87%	0.92
Credit - Multi	9.95%	-1.62%	12.40%	8.56%	2.85%	6.31%	5.88%	0.71
ELS - EUR	8.98%	-3.98%	8.47%	9.17%	9.36%	6.27%	5.29%	0.77
Macro - Global	2.12%	10.99%	-1.29%	9.44%	8.77%	5.90%	4.47%	0.83
Credit - Dir Len	8.04%	3.69%	7.41%	3.31%	6.91%	5.85%	3.21%	1.12
Event - Opp	6.45%	-11.06%	9.85%	13.61%	12.00%	5.76%	8.34%	0.46
Event - M&A	7.03%	2.12%	6.17%	6.94%	5.68%	5.57%	5.76%	0.60
Credit - Distress	9.12%	-3.50%	15.14%	3.78%	4.17%	5.56%	8.65%	0.42
Quant - CTA	-3.76%	15.30%	7.86%	0.84%	8.51%	5.54%	8.12%	0.44
ELS - APAC	3.29%	-10.06%	3.38%	24.01%	9.36%	5.43%	8.06%	0.43
Credit - RV	7.09%	-3.24%	4.81%	5.42%	7.23%	4.19%	5.64%	0.38
Long - Div Growth	6.02%	-12.63%	9.45%	6.64%	12.81%	4.05%	9.30%	0.24
Credit - Muni	7.78%	-9.34%	5.84%	6.84%	10.35%	4.05%	7.56%	0.28
Credit - Struct	8.95%	-3.48%	10.42%	-3.16%	5.25%	3.43%	10.34%	0.18
Quant - RP	10.57%	-4.42%	13.57%	-7.28%	4.30%	3.02%	6.65%	0.16
Macro - EM	10.96%	-8.23%	-0.56%	5.98%	7.33%	2.87%	9.44%	0.12
Arb - Vol	1.29%	6.10%	1.04%	1.83%	3.78%	2.79%	3.05%	0.21
Quant - EMN	8.09%	5.05%	12.64%	-17.91%	5.99%	2.16%	8.17%	0.04
Credit - StrucLO	9.17%	-8.58%	3.62%	0.98%	5.59%	1.97%	7.05%	0.01
Quant - Macro	-1.41%	6.77%	4.53%	-4.11%	0.40%	1.16%	8.47%	-0.08
Arb - Tail	-10.03%	5.62%	-6.60%	14.59%	-12.08%	-2.21%	12.14%	-0.30
HF Composite*	7.93%	-2.18%	7.77%	9.08%	10.31%	6.48%	5.90%	0.73
Bonds**	6.67%	-16.69%	-5.59%	9.84%	6.19%	-0.43%	7.54%	-0.31
Equities***	19.24%	-20.04%	16.02%	14.34%	23.65%	9.35%	18.25%	0.46

NET MONTHLY RETURN (5 YR) - HEDGE FUND COMPOSITE*



NET RETURN (5 YR) PERIOD TO DECEMBER 2023

Performance	2023	2022	2021	2020	2019	5Yr CAR	5Yr Vol	5Yr Sharpe
Multi-Strategy	7.57%	8.91%	11.64%	15.05%	9.70%	10.55%	3.65%	2.19
Event	9.61%	-4.66%	11.77%	12.63%	12.14%	8.09%	7.08%	0.83
Equity L/S	11.51%	-9.54%	5.19%	18.03%	14.79%	7.53%	8.82%	0.63
Long biased	9.94%	-13.92%	10.45%	12.46%	17.53%	6.68%	12.11%	0.42
Macro	5.37%	6.36%	0.06%	8.35%	8.24%	5.63%	4.66%	0.74
Credit	8.70%	-2.63%	9.59%	2.78%	5.33%	4.66%	7.04%	0.38
Arbitrage	2.01%	2.94%	3.80%	11.53%	2.00%	4.40%	2.90%	0.76
Quant	2.02%	8.61%	8.40%	-5.01%	4.47%	3.58%	5.52%	0.28
HF Composite*	7.93%	-2.18%	7.77%	9.08%	10.31%	6.48%	5.90%	0.73
Bonds**	6.67%	-16.69%	-5.59%	9.84%	6.19%	-0.43%	7.54%	-0.31
Equities***	19.24%	-20.04%	16.02%	14.34%	23.65%	9.35%	18.25%	0.46

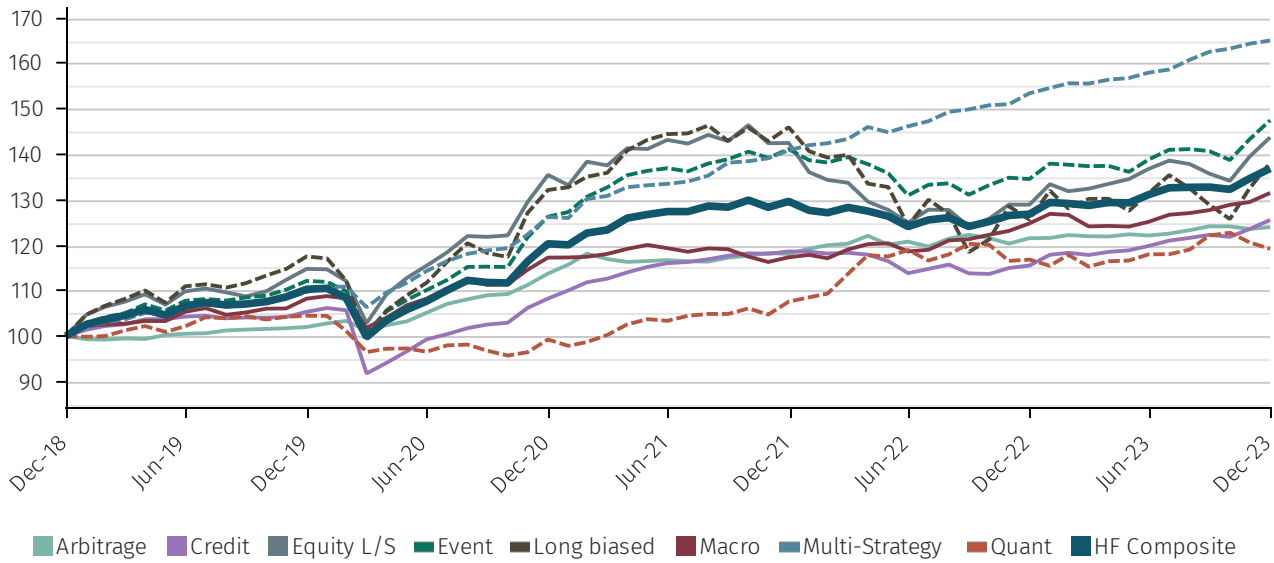
HIERARCHICAL ANNUALISED NET RETURN TO DECEMBER 2023

1 YEAR	3 YEAR	5 YEAR	10 YEAR
Equity L/S 11.5%	Multi-Strategy 9.4%	Multi-Strategy 10.5%	Multi-Strategy 7.7%
Long biased 9.9%	Quant 6.3%	Event 8.1%	Event 5.2%
Event 9.6%	Event 5.3%	Equity L/S 7.5%	Equity L/S 4.9%
Credit 8.7%	Credit 5.1%	Long biased 6.7%	HF Composite* 4.5%
HF Composite* 7.9%	HF Composite* 4.4%	HF Composite* 6.5%	Long biased 4.3%
Multi-Strategy 7.6%	Macro 3.9%	Macro 5.6%	Credit 4.0%
Macro 5.4%	Arbitrage 2.9%	Credit 4.7%	Macro 3.5%
Quant 2.0%	Equity L/S 2.0%	Arbitrage 4.4%	Quant 3.4%
Arbitrage 2.0%	Long biased 1.5%	Quant 3.6%	Arbitrage 2.6%

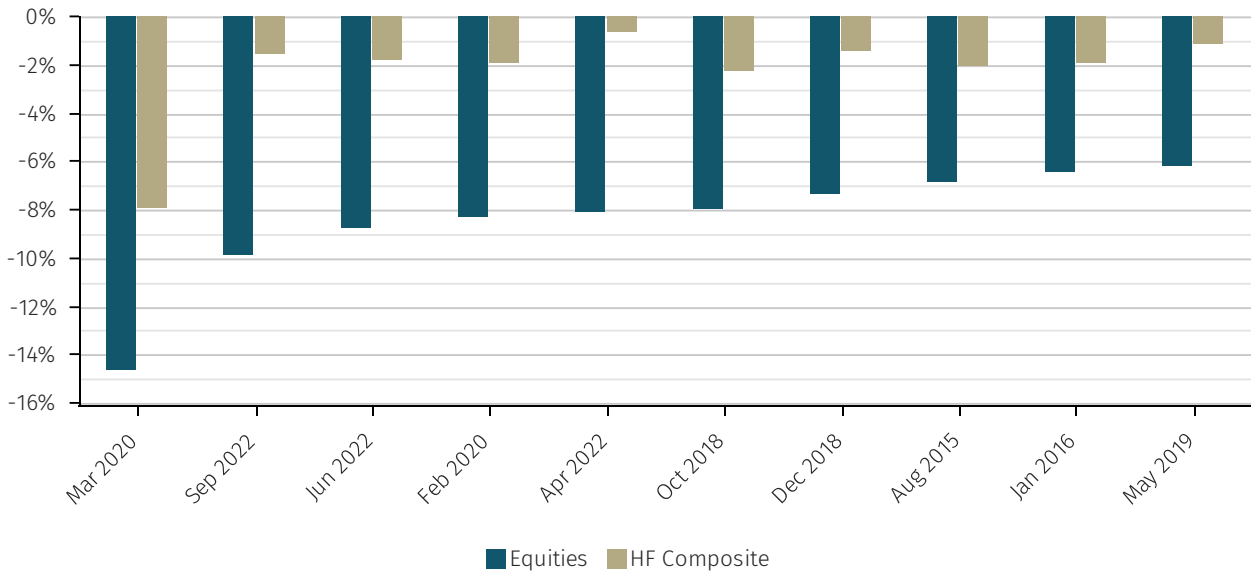
HIERARCHICAL ANNUALISED NET RETURN TO DECEMBER 2023 - SUB-STRATEGY

1 YEAR	3 YEAR	5 YEAR	10 YEAR
Event - Activist 20.9%	Long - Commods 11.1%	Event - Activist 14.6%	Event - Activist 9.0%
Long - Equity 14.4%	Quant - Stat Arb 11.1%	Multi-strategy 10.5%	Quant - Stat Arb 8.0%
ELS - Global 14.2%	Macro - Commods 10.3%	Arb - Opp 9.4%	Multi-strategy 7.7%
Long - Other 14.2%	Multi-strategy 9.4%	Quant - Stat Arb 9.4%	Long - Equity 6.4%
ELS - US 14.1%	Event - Activist 9.0%	Macro - Commods 9.1%	ELS - Global 6.1%
ELS - Sector 13.0%	Quant - EMN 8.5%	ELS - Global 9.0%	Arb - Opp 5.9%
Macro - EM 11.0%	Arb - Opp 7.1%	Long - Equity 8.9%	Credit - Dir Len 5.8%
Quant - Stat Arb 10.9%	Macro - FIRV 6.7%	ELS - US 8.4%	Macro - FIRV 5.7%
Macro - FIRV 10.9%	Credit - Multi 6.7%	Macro - FIRV 7.8%	ELS - FEMN 5.3%
Quant - RP 10.6%	Credit - Distress 6.6%	ELS - Sector 7.4%	ELS - US 5.2%
Credit - Multi 10.0%	Credit - Dir Len 6.4%	Event - Multi 7.2%	Credit - Muni 5.1%
Credit - StrucLO 9.2%	Quant - RP 6.3%	Long - Other 7.2%	Event - Multi 4.9%
Credit - Distress 9.1%	Quant - CTA 6.2%	ELS - Other 7.2%	ELS - APAC 4.8%
ELS - EUR 9.0%	Event - Multi 5.9%	Arb - CB 7.1%	Credit - Struct 4.7%
Credit - Struct 8.9%	Credit - Struct 5.1%	Long - Commods 7.0%	Quant - EMN 4.7%
Quant - EMN 8.1%	Event - M&A 5.1%	ELS - FEMN 6.7%	Credit - Multi 4.6%
Arb - Opp 8.1%	ELS - FEMN 4.9%	HF Composite* 6.5%	Long - Other 4.5%
Credit - Dir Len 8.0%	HF Composite* 4.4%	Credit - Multi 6.3%	HF Composite* 4.5%
Arb - CB 8.0%	ELS - EUR 4.3%	ELS - EUR 6.3%	Arb - CB 4.5%
HF Composite* 7.9%	ELS - Global 4.2%	Macro - Global 5.9%	Credit - Distress 4.4%
Credit - Muni 7.8%	Macro - Global 3.8%	Credit - Dir Len 5.9%	ELS - Sector 4.2%
Multi-strategy 7.6%	Long - Other 3.6%	Event - Opp 5.8%	Event - M&A 4.2%
ELS - FEMN 7.3%	Arb - CB 3.4%	Event - M&A 5.6%	ELS - Other 4.2%
ELS - Other 7.2%	Quant - Macro 3.2%	Credit - Distress 5.6%	ELS - EUR 4.2%
Credit - RV 7.1%	ELS - US 3.2%	Quant - CTA 5.5%	Quant - CTA 3.6%
Event - M&A 7.0%	Credit - RV 2.8%	ELS - APAC 5.4%	Event - Opp 3.5%
Event - Multi 6.6%	Arb - Vol 2.8%	Credit - RV 4.2%	Macro - Global 3.3%
Event - Opp 6.5%	ELS - Other 2.6%	Long - Div Growth 4.0%	Macro - Commods 3.3%
Long - Div Growth 6.0%	Event - Opp 1.3%	Credit - Muni 4.0%	Macro - EM 3.0%
ELS - APAC 3.3%	Long - Equity 1.3%	Credit - Struct 3.4%	Long - Div Growth 3.0%
Macro - Commods 2.6%	Credit - Muni 1.1%	Quant - RP 3.0%	Credit - RV 2.7%
Macro - Global 2.1%	Credit - StrucLO 1.1%	Macro - EM 2.9%	Quant - RP 2.5%
Arb - Vol 1.3%	Long - Div Growth 0.5%	Arb - Vol 2.8%	Arb - Vol 2.5%
Quant - Macro -1.4%	Macro - EM 0.4%	Quant - EMN 2.2%	Credit - StrucLO 2.4%
Quant - CTA -3.8%	ELS - Sector -1.0%	Credit - StrucLO 2.0%	Quant - Macro 2.1%
Long - Commods -4.7%	ELS - APAC -1.3%	Quant - Macro 1.2%	Long - Commods -1.0%
Arb - Tail -10.0%	Arb - Tail -3.9%	Arb - Tail -2.2%	Arb - Tail -3.9%

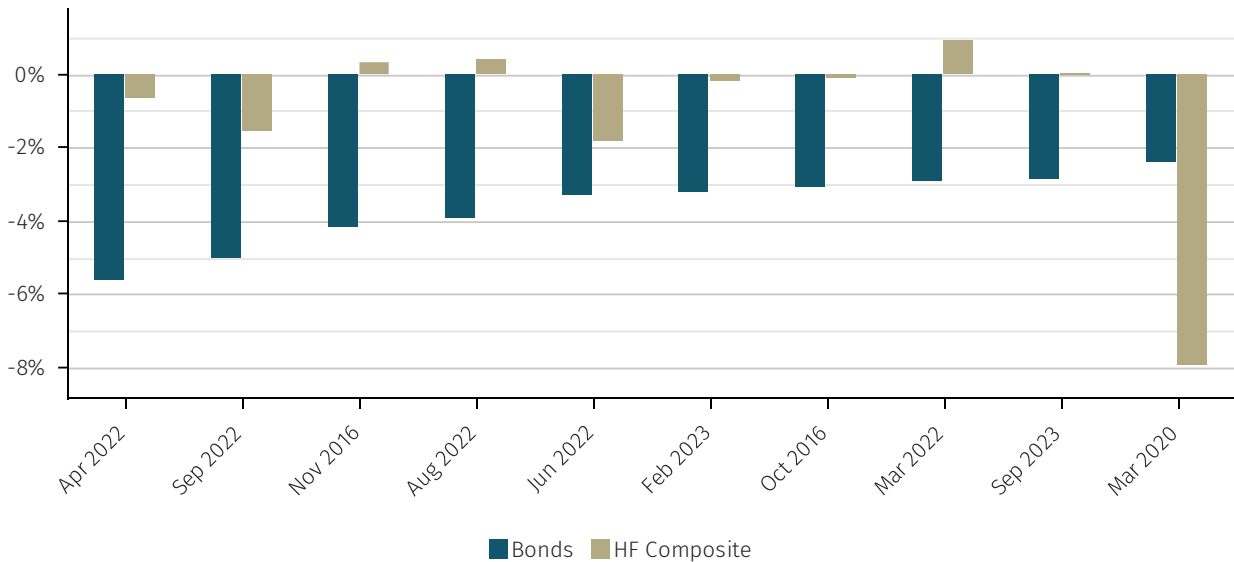
CUMULATIVE RETURN (5 YR) PERIOD TO DECEMBER 2023



PERFORMANCE DURING WORST 10 MONTHS FOR EQUITIES*** (10 YR) PERIOD TO DECEMBER 2023 – HF COMPOSITE

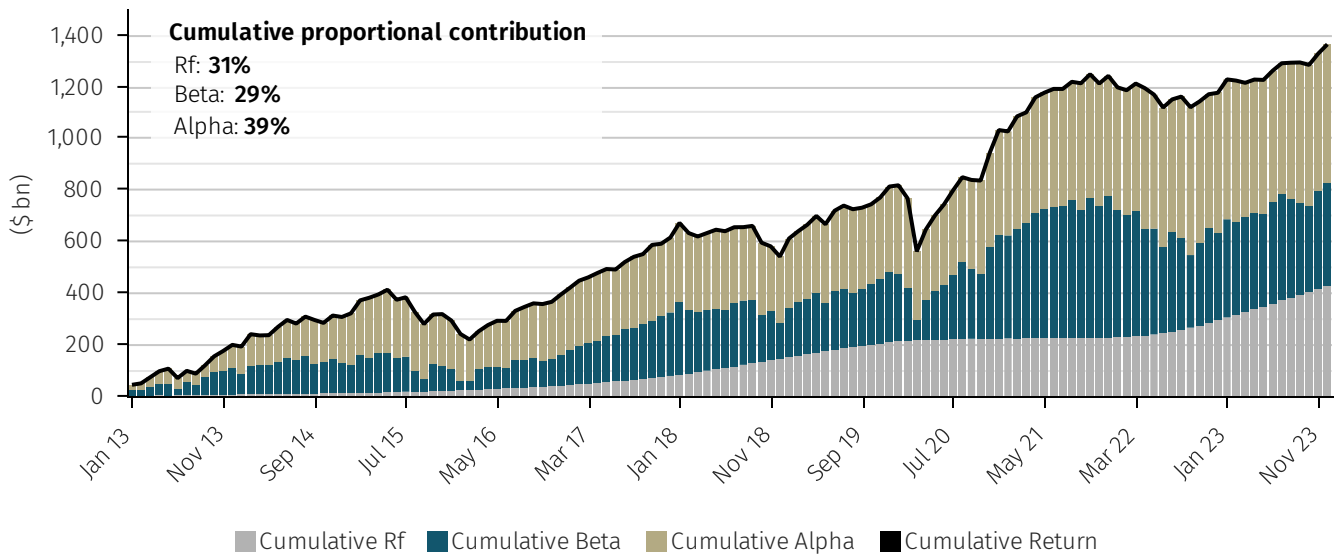


PERFORMANCE DURING WORST 10 MONTHS FOR BONDS** (10 YR) PERIOD TO DECEMBER 2023 – HF COMPOSITE



DECOMPOSING DOLLAR PERFORMANCE INTO ALPHA, BETA AND RISK FREE (RF) COMPONENTS

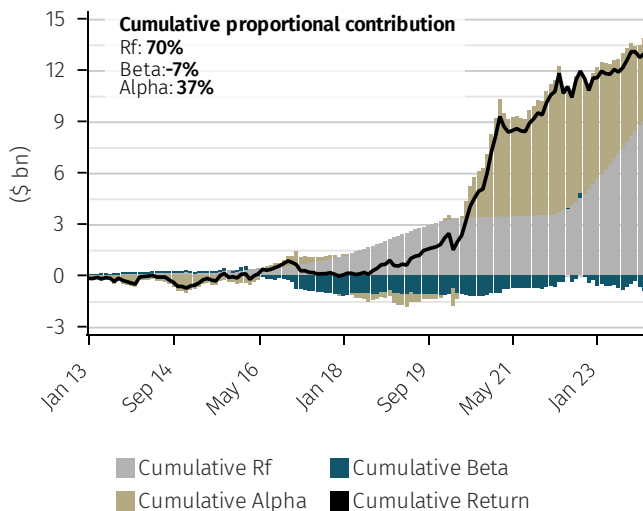
HF Composite



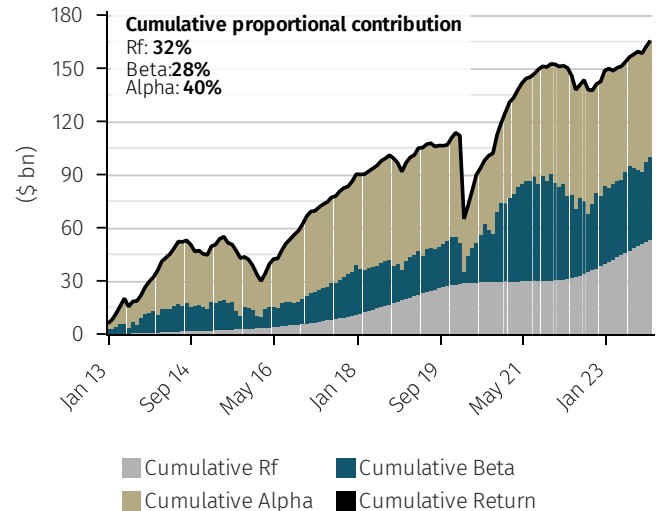
These charts decompose the Hedge Fund Composite dollar returns into Beta, Alpha and Risk free ("Rf") components, as follows:
 $\text{Alpha} = \text{Actual return} - \text{Rf} - \text{Beta} * (\text{Market return} - \text{Rf})$.

Where Rf is the Risk-free rate as defined by a rolling 3-month LIBOR-SOFR, where market return is that of S&P Global BMI ('the market index') and where Beta has been calculated with respect to each underlying fund observed on a 60m rolling basis to the market index. The monthly Alpha, Beta and Rf components are then applied to each underlying fund's dollar performance for a particular month, and then at a master strategy or industry level the individual fund dollar contributions are aggregated.

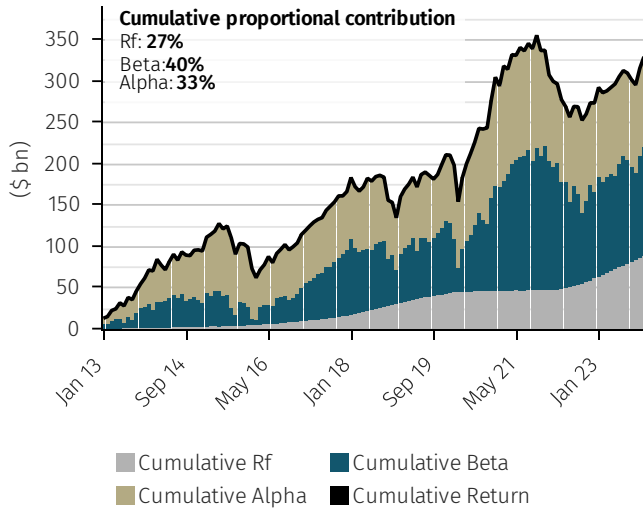
Arbitrage



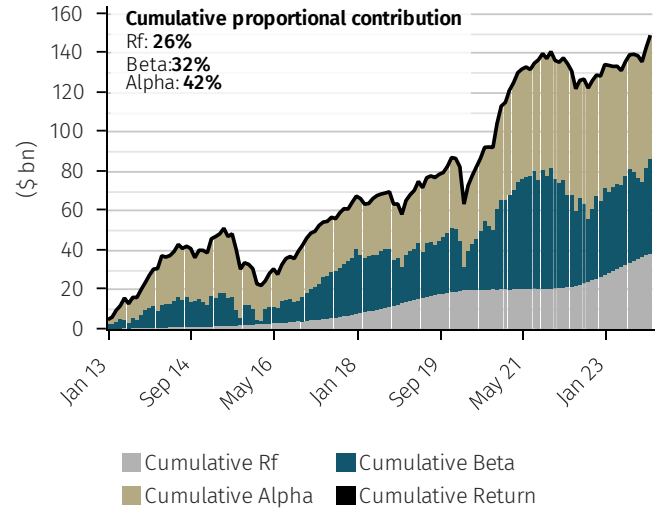
Credit



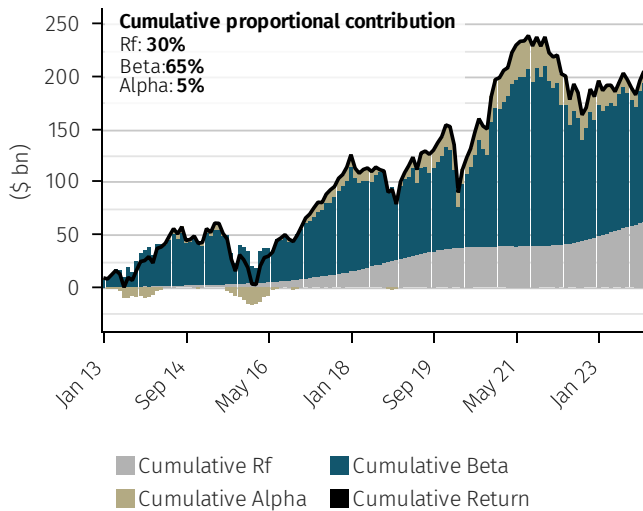
Equity L/S



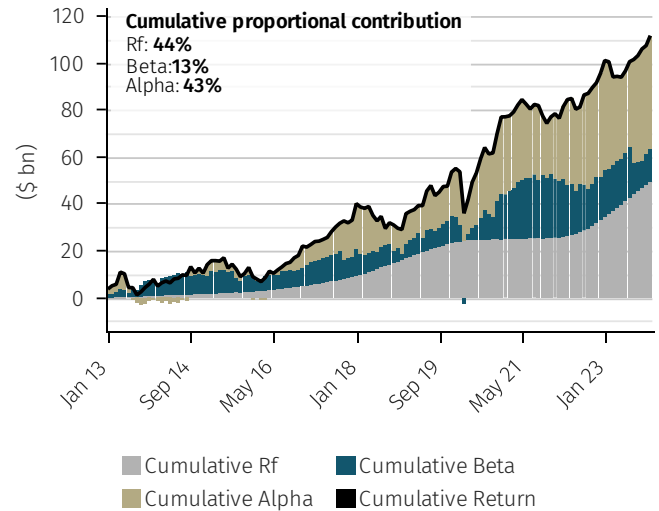
Event



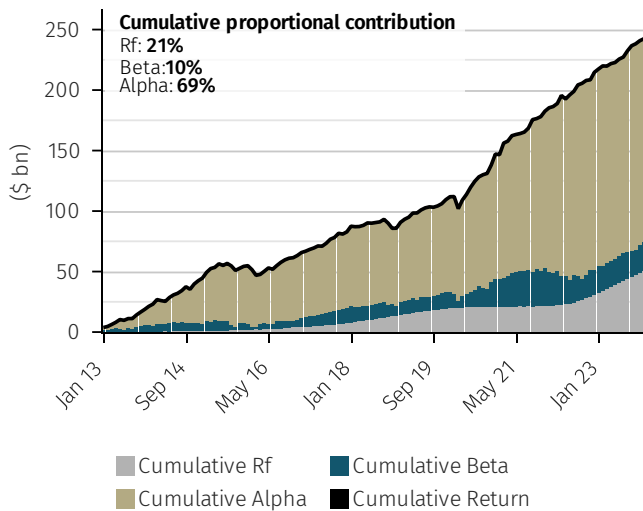
Long biased



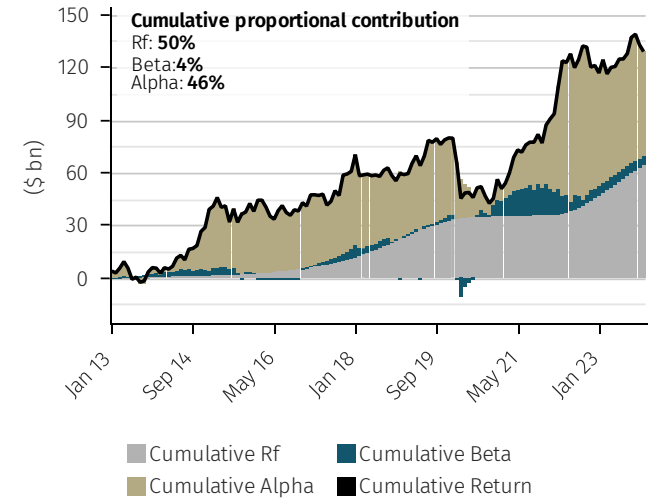
Macro



Multi-Strategy



Quant



Performance dispersion and correlation

Overall industry dispersion between the top and bottom decile has fallen dramatically, as has general risk-asset volatility. Dispersion now sits at a level more in line with levels observed pre-COVID. Relative to the last ten years, dispersion in multi-strategy is well below average. All other strategies apart from event and long biased are exhibiting below average levels of dispersion relative to the last ten years. Both long biased and event strategies have sub-strategies that are also exhibiting a significant amount of dispersion, for example event – activist is by far the top performing sub-strategy out of 36 sub-strategies across the industry, while other event sub-strategies exhibit a tighter range. As indicated previously the event – activist sub-strategy has historically exhibited a higher correlation/beta to equities, explaining this widening dispersion. Similarly in the long biased strategy, a booming equity market has led long biased equity hedge funds with a heavy beta to a strong year, while at the other end of the spectrum long commodity funds have been down on average.

As the candlestick charts show, there are a number of strategies that exhibit very large absolute levels of dispersion. Long biased persistently has higher levels of top-to-bottom decile dispersion. This is not only due to the nature of the category as described above, but also that the underlying funds tend to run with some of the highest hedge fund volatilities. Equity long/short funds also have a very wide dispersion, unsurprising given the sub-categories cover multiple regions, sector specific funds, and market-neutral funds. Credit and multi-strategy have a tight interquartile range for performance.

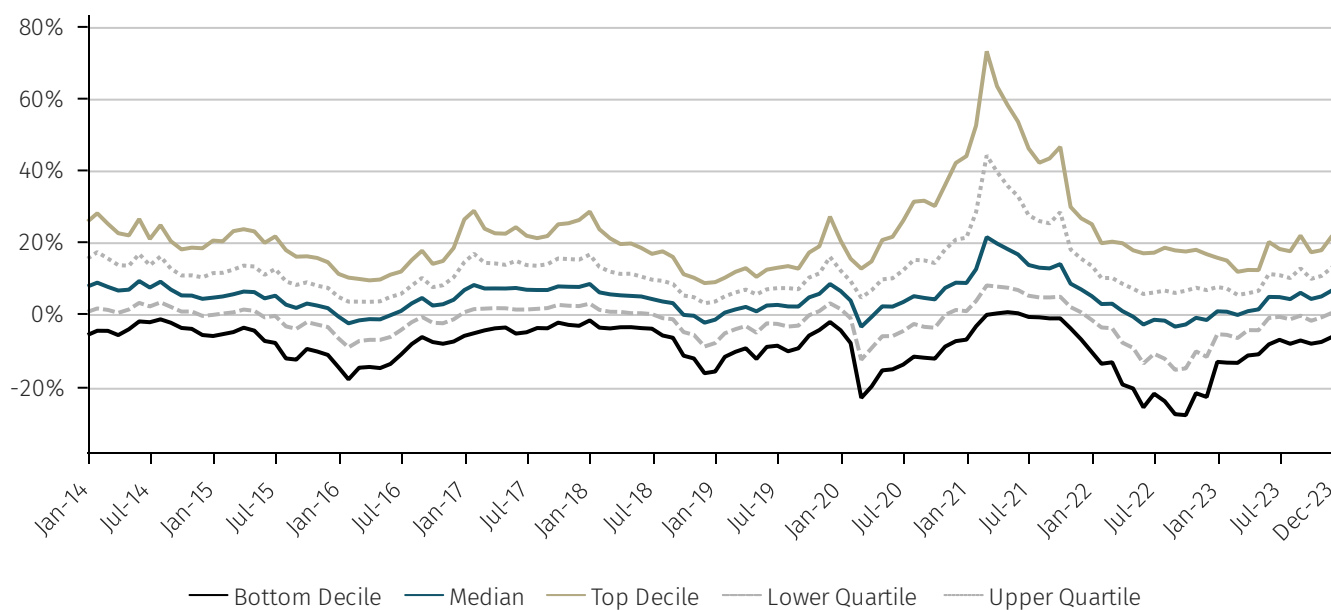
The analysis of intra strategy correlations indicates that arbitrage and quant consistently exhibit lower levels of correlation to other hedge fund strategies, strengthening the case for their use as potential diversifiers to an overall portfolio mix. On the other end of the scale, event, equity long/short and long biased have a consistently high correlation to equities and also a high correlation to bond markets over recent years (with bonds and equity markets themselves currently highly correlated). This is an important factor of which to be wary if one is an asset allocator and using hedge funds as a source of uncorrelated return.

One should also pay close attention to the average intra-strategy correlation chart. This can give an additional quantitative measure of the extent of homogeneity of funds within each strategy bucket. So while long biased and activist managers may have been strong performers in recent years, as a cohort they exhibit among the highest levels of cross-correlation. The event – M&A sub-strategy has seen markedly higher cross correlation in recent years. This is likely due to elevated levels of common factor risk. In the case of M&A, during periods where the incidence of deals being challenged/mergers coming under stress is relatively low, the cross correlation in the strategy tends to be lower. In the more recent past, with stress on the space in 2020 and more recently the higher number of large, widely-held deals having had issues, there has been far less differentiation across the event – merger space. This also has impacted event – opp and to a far lesser extent event – opp funds as well. Event – activist funds tend to run with a higher beta to broader equity markets, which is the high common factor among such managers. The areas where Aurum tends to focus its research are biased more towards the left side of the chart, i.e. macro (primarily global macro and commodities), quant (with a bias towards statistical arbitrage, short-term futures and quant macro/quant volatility), multi-strategy and trading oriented event driven. These strategies are – by their nature – more heterogenous in composition and individual manager/fund approach and are where one can potentially add significant value from fund and manager selection. These strategies also have exhibited lower correlation to risk assets and other sub-strategies.

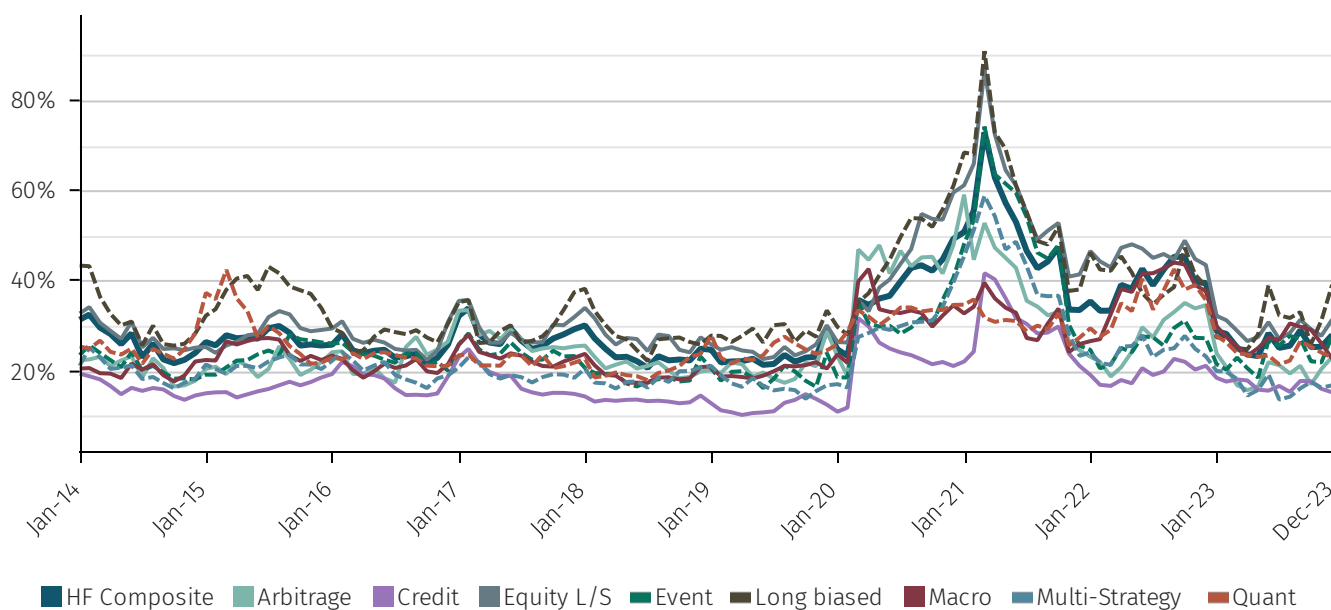
STRATEGY DISPERSION – ROLLING SPREAD 10-90th PERCENTILE

Strategy	Average 10 year	12M to Dec-23	Current differential from 10 year average
Long biased	36.05%	39.11%	8.50%
Event	26.12%	27.83%	6.53%
Equity L/S	34.19%	31.43%	-8.07%
HF Composite*	30.69%	28.00%	-8.77%
Macro	25.72%	22.75%	-11.56%
Arbitrage	26.26%	23.13%	-11.90%
Quant	26.72%	23.01%	-13.87%
Credit	18.28%	15.28%	-16.43%
Multi-Strategy	22.88%	16.84%	-26.41%

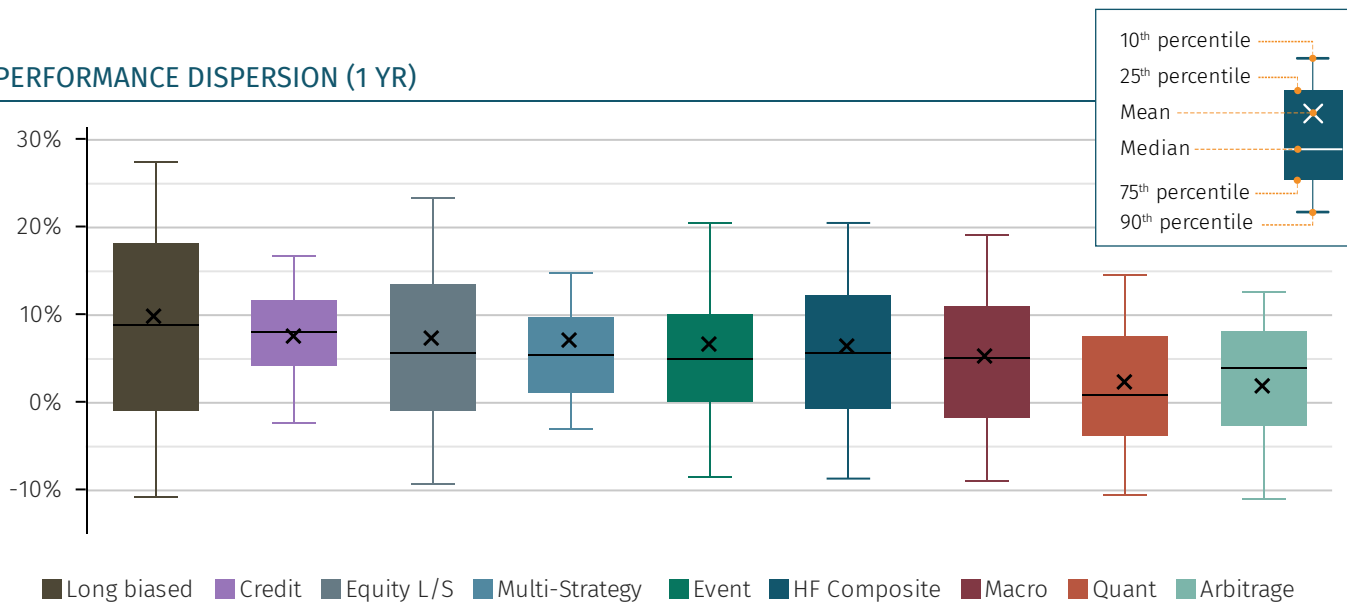
HEDGE FUND INDUSTRY DISPERSION – 12M ROLLING RETURN



10th – 90th PERCENTILE 12M ROLLING PERFORMANCE SPREAD

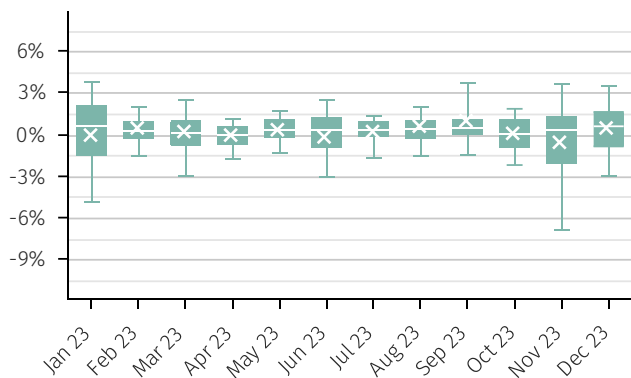


PERFORMANCE DISPERSION (1 YR)

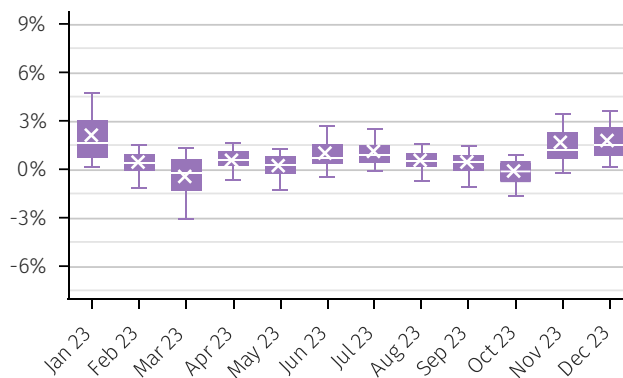


NET MONTHLY RETURN DISTRIBUTION

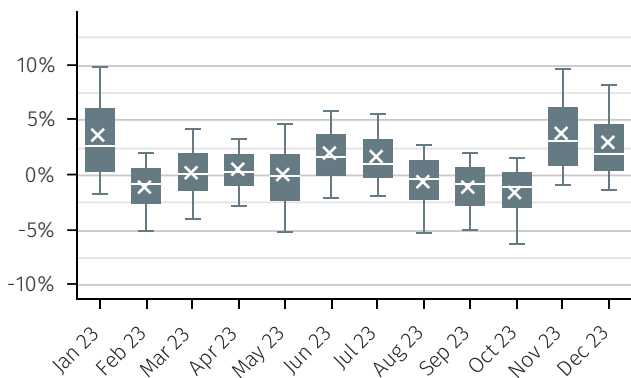
Arbitrage



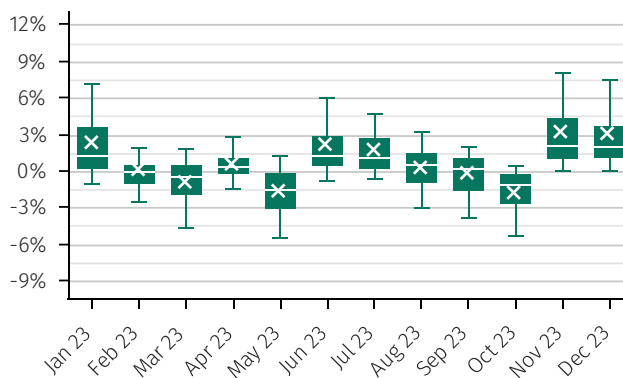
Credit



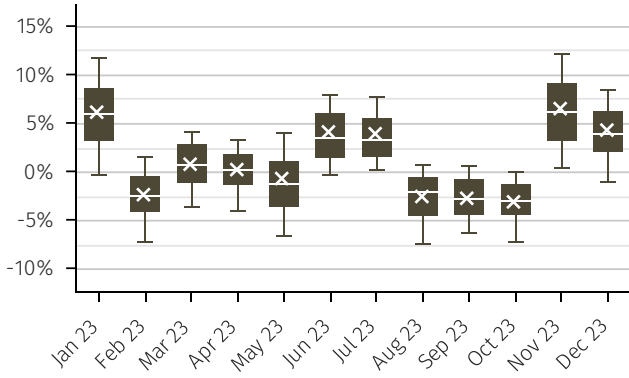
Equity L/S



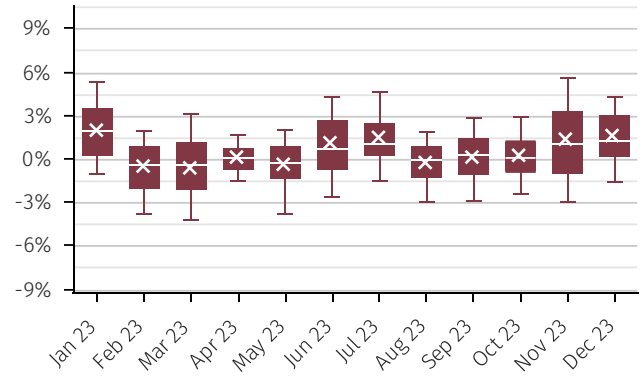
Event



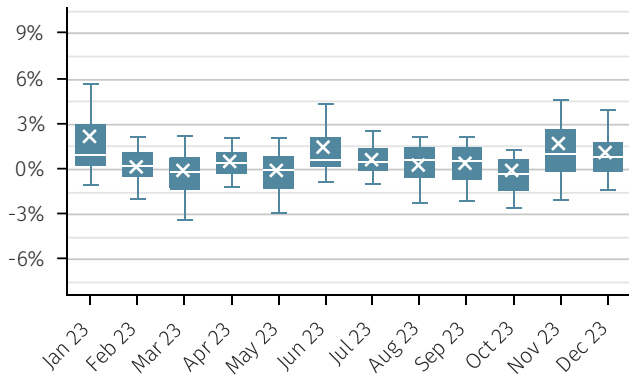
Long biased



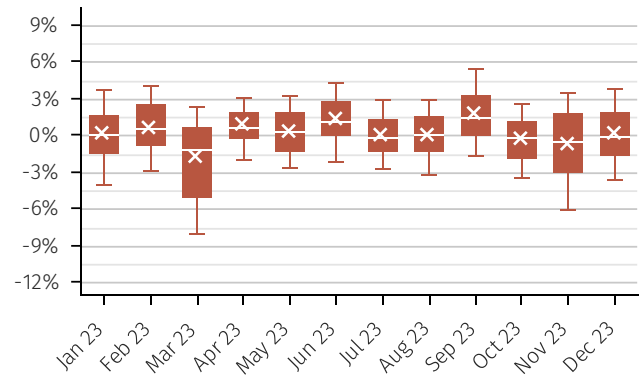
Macro



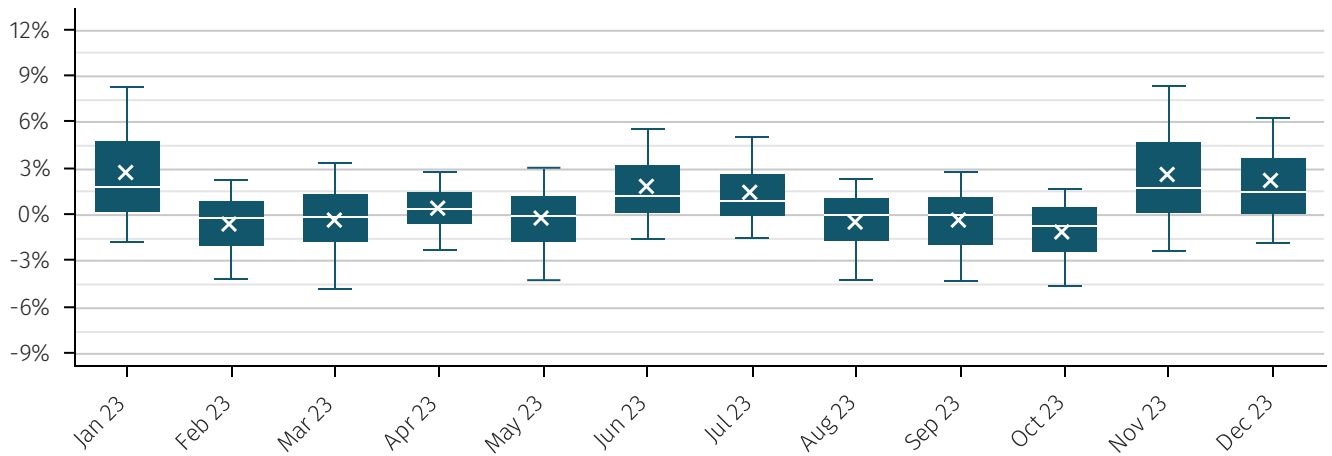
Multi-Strategy



Quant



HF Composite



Correlation

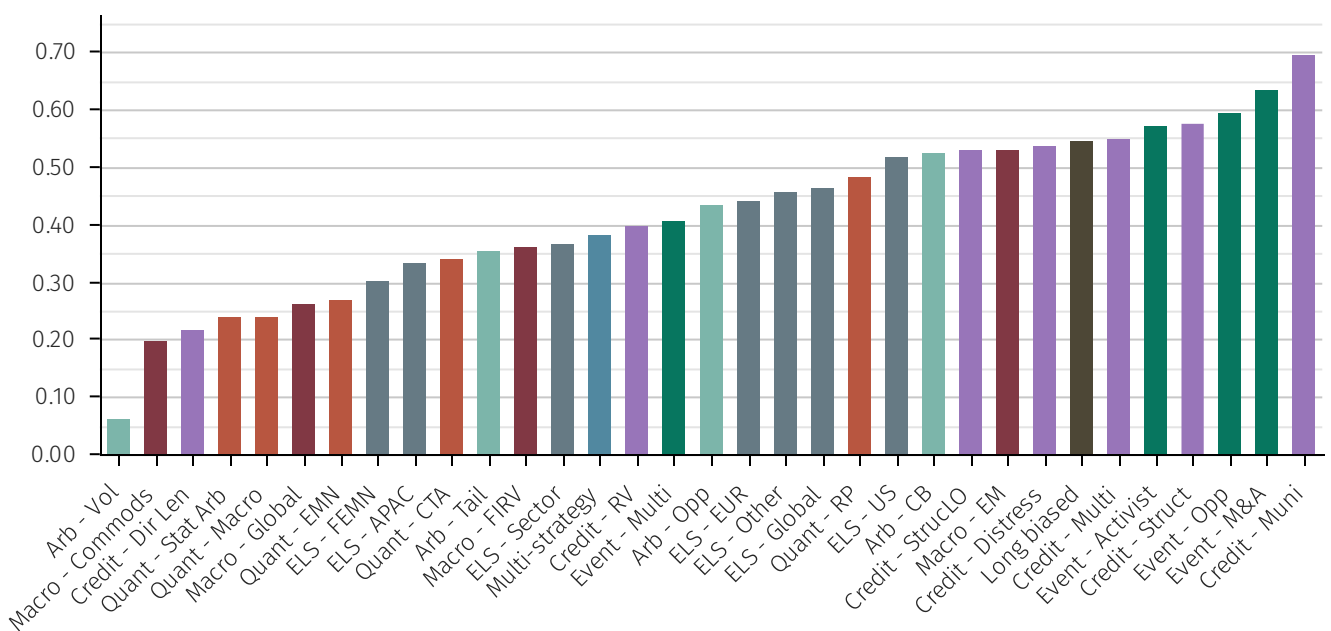
CORRELATION MATRIX (5 YR) PERIOD TO DECEMBER 2023

	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite	Bonds	Equities
Arbitrage		0.47	0.20	0.30	0.06	0.39	0.65	0.33	0.34	-0.14	-0.02
Credit			0.72	0.84	0.72	0.79	0.76	0.31	0.87	0.34	0.65
Equity L/S				0.92	0.91	0.67	0.66	0.12	0.93	0.59	0.90
Event					0.92	0.78	0.73	0.25	0.97	0.49	0.90
Long biased						0.66	0.50	0.04	0.90	0.71	0.98
Macro							0.73	0.44	0.83	0.23	0.62
Multi-Strategy								0.50	0.78	0.08	0.46
Quant									0.37	-0.43	0.06
HF Composite*										0.46	0.87
Bonds**											0.65
Equities***											

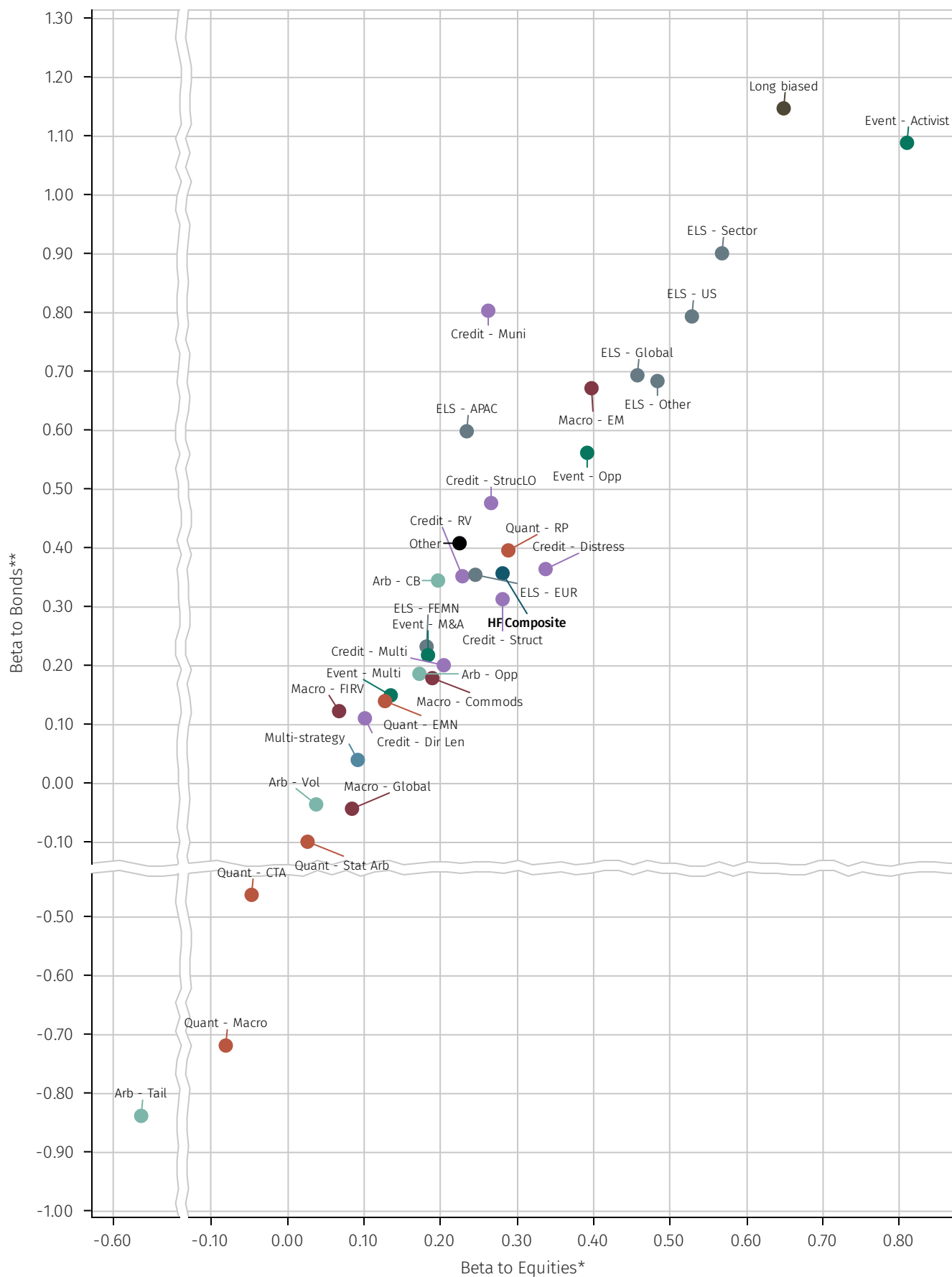
CORRELATION MATRIX (1 YR) PERIOD TO DECEMBER 2023

	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite	Bonds	Equities
Arbitrage		-0.07	-0.56	-0.38	-0.61	0.13	0.43	0.60	-0.37	-0.69	-0.67
Credit			0.79	0.88	0.73	0.71	0.29	-0.27	0.93	0.53	0.72
Equity L/S				0.89	0.94	0.39	-0.20	-0.71	0.90	0.86	0.95
Event					0.91	0.52	0.10	-0.49	0.96	0.76	0.90
Long biased						0.36	-0.22	-0.72	0.90	0.91	0.98
Macro							0.38	0.10	0.66	0.12	0.32
Multi-Strategy								0.56	0.11	-0.34	-0.22
Quant									-0.42	-0.88	-0.69
HF Composite*										0.70	0.90
Bonds**											0.88
Equities***											

AVERAGE INTRA-STRATEGY CORRELATION (5 YR)¹ - SUB-STRATEGY



BETA TO BONDS AND BETA TO EQUITIES (5 YR) PERIOD TO DECEMBER 2023 – SUB-STRATEGY



Hedge funds vs alt UCITS

The table below presents the returns of hedge funds relative to their alternative UCITS ('alt UCITS') counterparts. As can clearly be seen, hedge funds on average, outperformed their 'younger' and more inexpensive cousins in 2023 and have significantly outperformed over a five year period.

There are, however, some exceptions to note; for example: alt UCITS arbitrage funds outperformed relative to hedge funds. A significant driver of this is the larger allocation hedge funds have to tail hedging and volatility trading strategies, both areas that are harder to replicate in a UCITS construct, but also both of the poorer performing areas in the year.

Alt UCITS Macro strategies were up 6.7% relative to 5.4% for macro hedge funds. It should be noted that at the master macro strategy level, it comprises a highly heterogeneous mix of underlying funds, some of which operate in relatively 'simple' and easy to execute strategies (which also lend themselves to a UCITS structure), while others have more barriers to entry and can be highly complex from an operational and/or financing perspective. Some macro strategies simply would not be permitted under the restrictions of a UCITS construct. This year, some very large macro funds experienced sharp negative performance in March and it is interesting to note the underperformance here. However, five year performance still significantly favours hedge funds.

The only UCITS strategy down in 2023 is multi-strategy. Multi-strategy is an example of where difference between hedge funds and implementation via a UCITS structure can become very stark, with the latter unable to compete from a structural perspective, as well as being hamstrung with regards to permitted tradable asset classes, trading time horizon, competition for talent and restrictions on leverage.

It is unsurprising to see credit hedge funds outperforming alt UCITS credit funds, as the hedge funds have considerably greater ability to short as well and structure an offering that gives the requisite ability to trade the asset class to a greater depth and go much further down the liquidity spectrum.

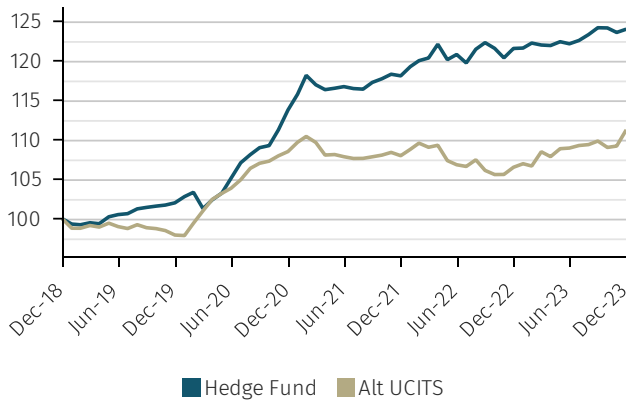
Quant hedge funds – as highlighted previously in the report have underperformed in 2023, however, alt UCITS has performed even worse than hedge funds. The primary reason for this is that the higher performing sub-strategies within quant have been equity statistical arbitrage and quantitative multi-strategy funds. These have also been some of the largest funds in the space and have skewed the returns upwards. By contrast, CTA and quant macro performance has been poorer in 2023. Both are strategies that are more easily replicable in a UCITS construct.

HEDGE FUNDS VS ALT UCITS RETURNS

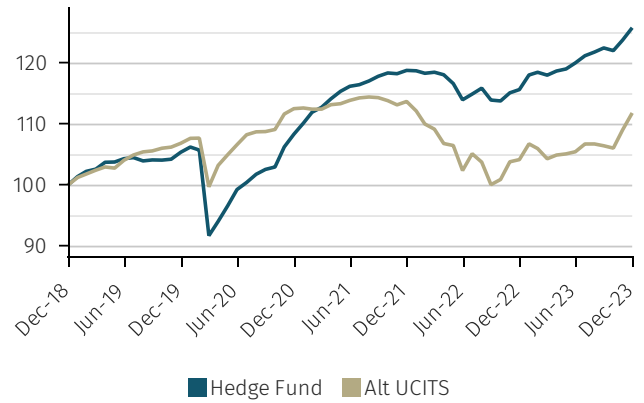
	2023 Returns		5Y Returns		5Y Vol		5Y Sharpe		AUM (\$bn)		Fund Count	
	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS
Arbitrage	2.01%	4.45%	4.40%	2.15%	2.90%	2.65%	0.76	0.01	74.1	6.0	120	16
Credit	8.70%	7.28%	4.66%	2.24%	7.04%	5.81%	0.38	0.04	322.2	14.6	448	35
Equity L/S	11.51%	8.24%	7.53%	4.25%	8.82%	4.93%	0.63	0.43	602.7	48.8	1,061	141
Event	9.61%	5.36%	8.09%	3.23%	7.08%	4.76%	0.83	0.24	285.2	12.0	213	29
Long biased	9.94%	8.41%	6.68%	4.15%	12.11%	8.47%	0.42	0.27	412.3	23.8	420	66
Macro	5.37%	6.69%	5.63%	2.64%	4.66%	7.28%	0.74	0.10	349.1	39.3	336	51
Multi-Strategy	7.57%	-0.47%	10.55%	2.93%	3.65%	5.09%	2.19	0.17	417.0	18.4	184	22
Quant	2.02%	1.12%	3.58%	0.98%	5.52%	4.65%	0.28	-0.23	365.8	17.5	443	59
HF Composite*	7.93%	6.55%	6.48%	3.40%	5.90%	5.04%	0.73	0.26	2900.5	190.3	3,433	435
Bonds**	6.67%		-0.43%		7.54%		-0.31		-	-	-	-
Equities***	19.24%		9.35%		18.25%		0.46		-	-	-	-

HEDGE FUNDS VS ALT UCITS (5 YR)

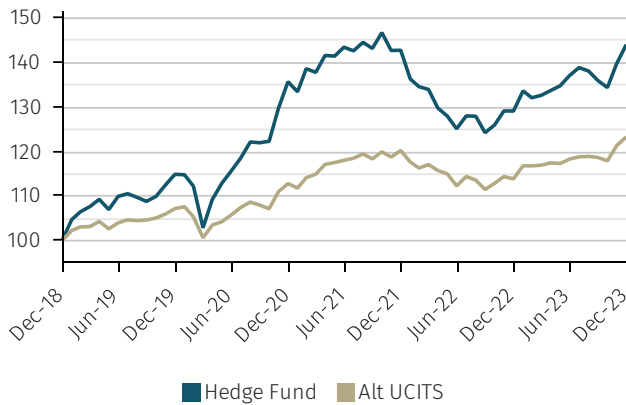
Arbitrage



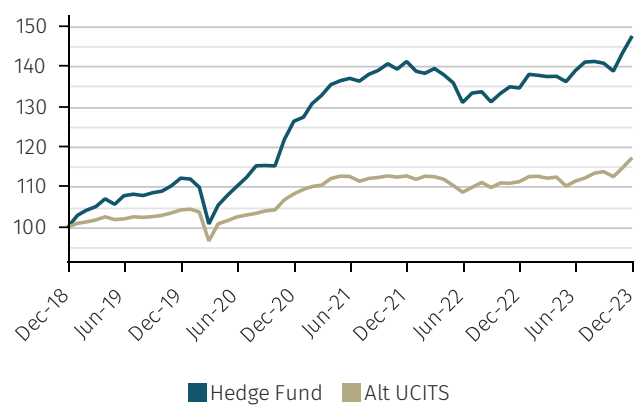
Credit



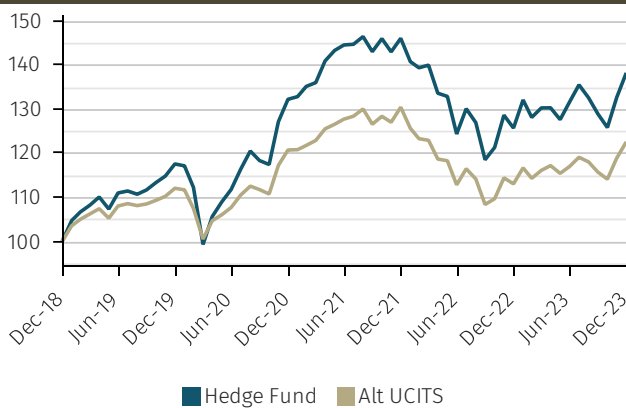
Equity L/S



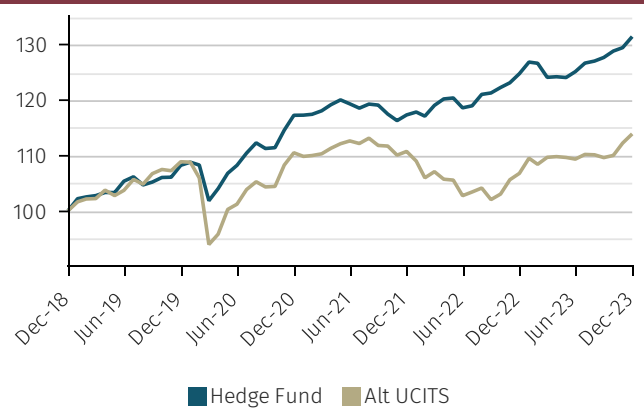
Event



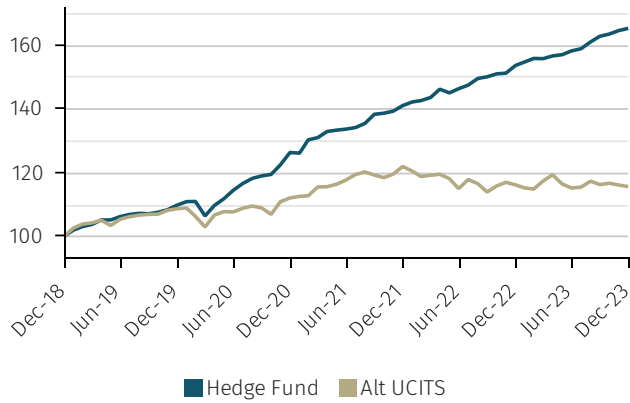
Long biased



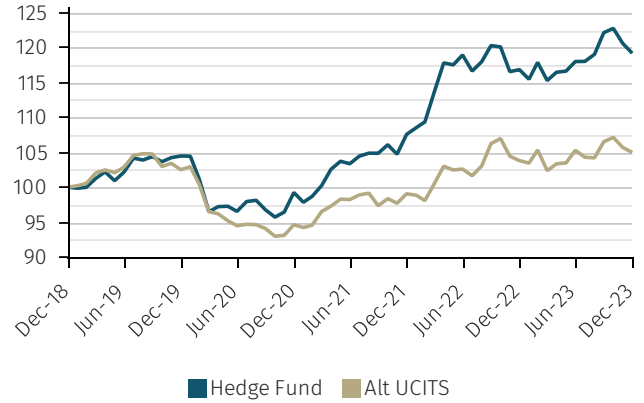
Macro



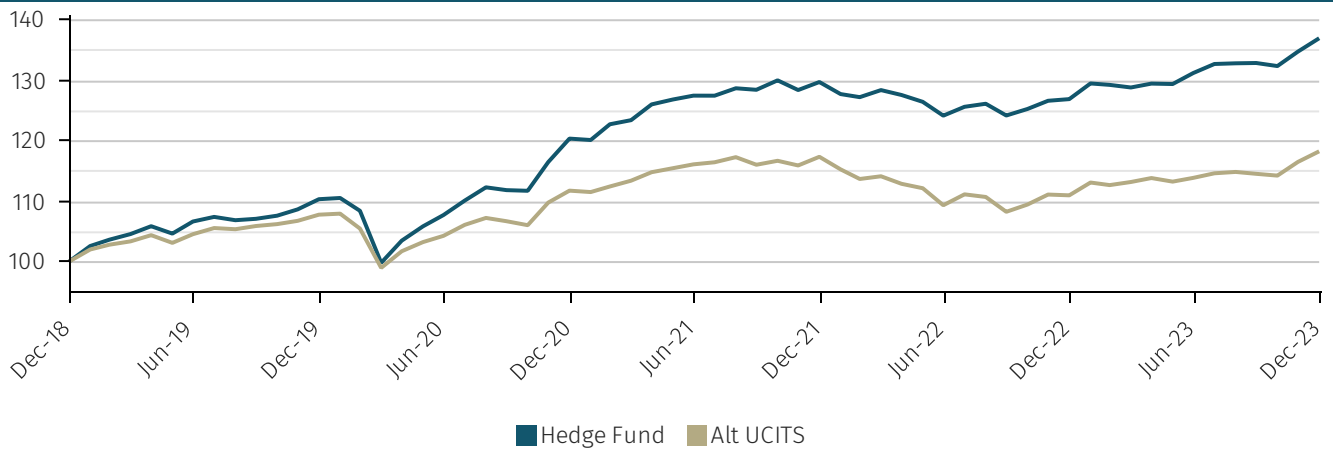
Multi-Strategy



Quant



HF Composite

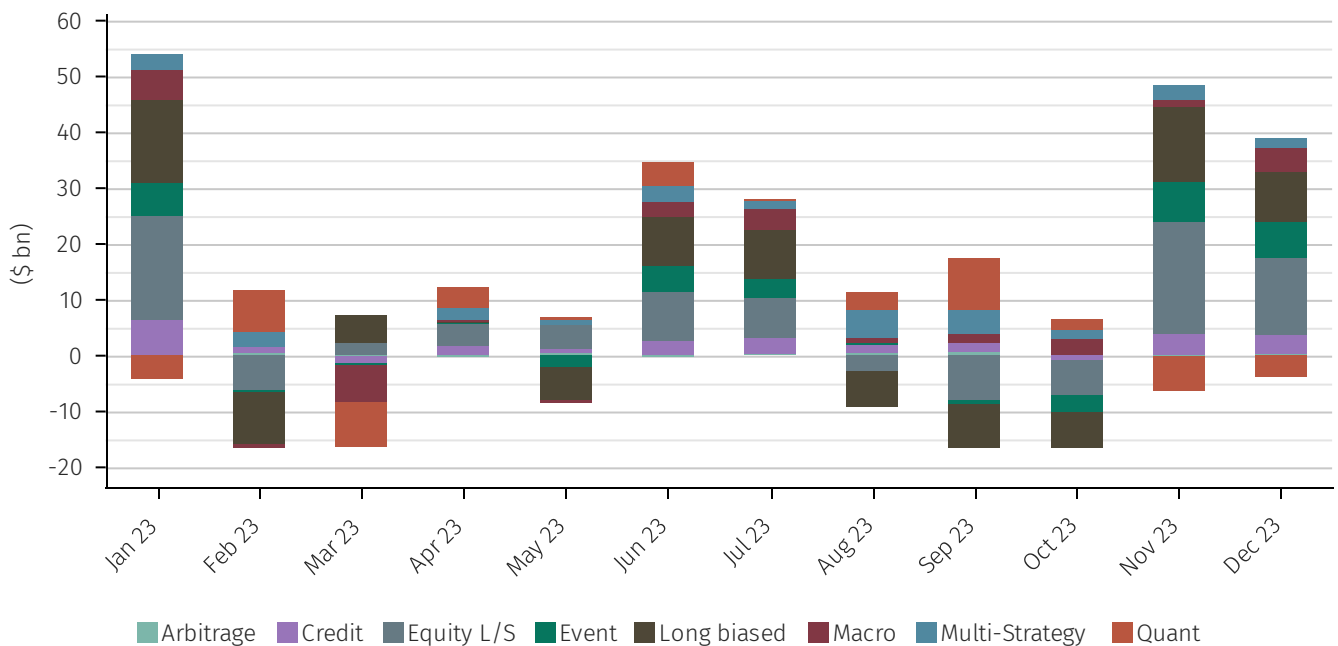


Dollar extraction

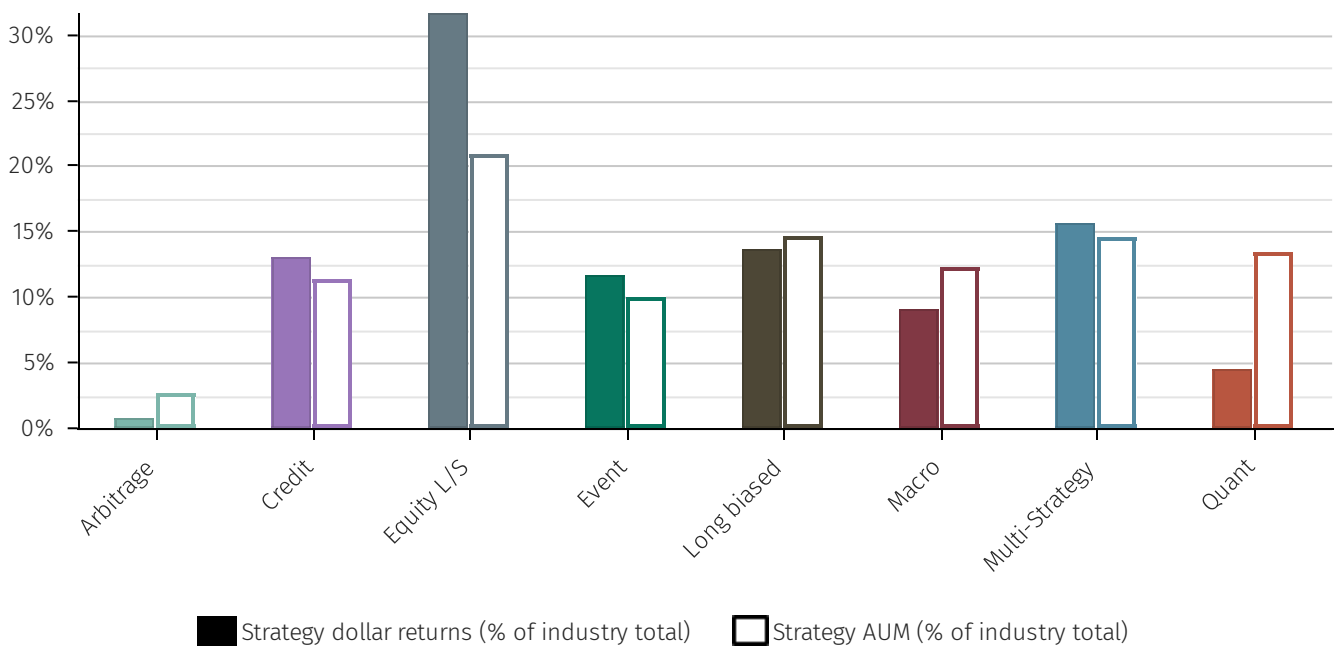
This part of the report describes, in dollar terms, how much – as a result of performance – has been generated or lost by particular strategies and the hedge fund industry as a whole.

There was significant positive performance (or ‘dollar generation/extraction’) across equity L/S, credit, multi-strategy, long-biased and event strategies. Equity L/S’s relative industry share of total dollar generation was well above its relative share of industry AUM. Relative to their asset size, macro, arbitrage and quant strategies underperformed in terms of the percentage of total industry P&L generated relative to their proportional size; quant in particular was disappointing, with significant assets in the CTA and quant macro space in particular, two of the poorest performing areas on a relative basis.

NET DOLLAR PERFORMANCE (1 YR)



DOLLAR RETURNS AND AUM RELATIVE TO THE INDUSTRY (1 YR)*

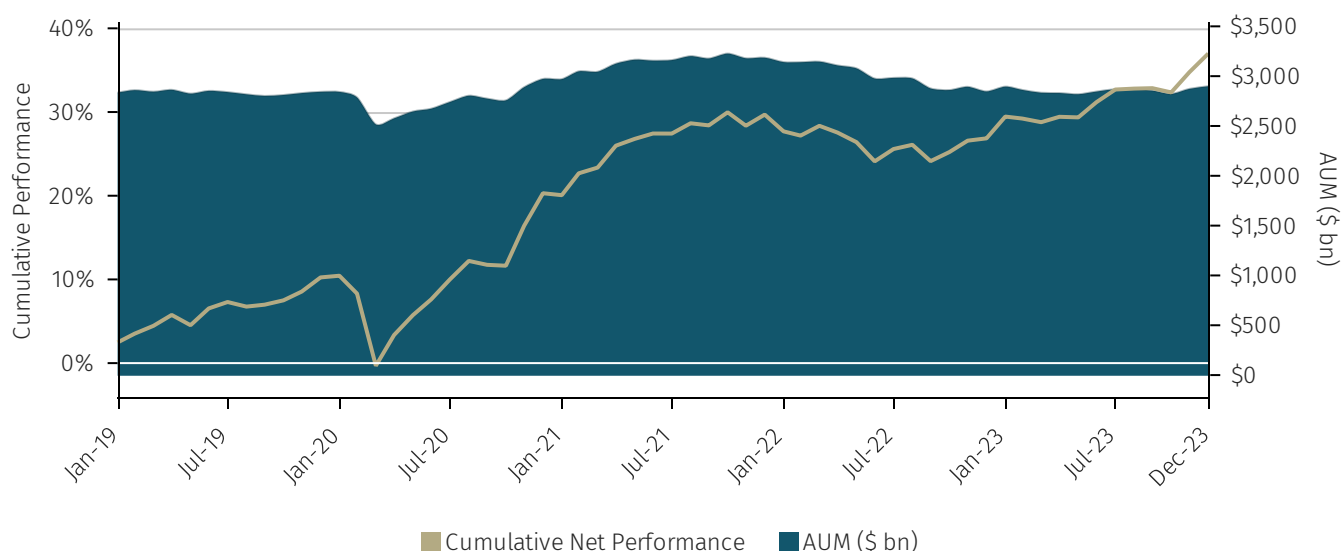


Note - When the hedge fund industry composite has a negative return for the reporting period, those strategies that contributed negative returns will show on the chart as a positive contribution to the overall negative return. Strategies that have generated positive returns during a period of losses for the hedge fund composite are displayed as a negative contribution to the overall negative return.

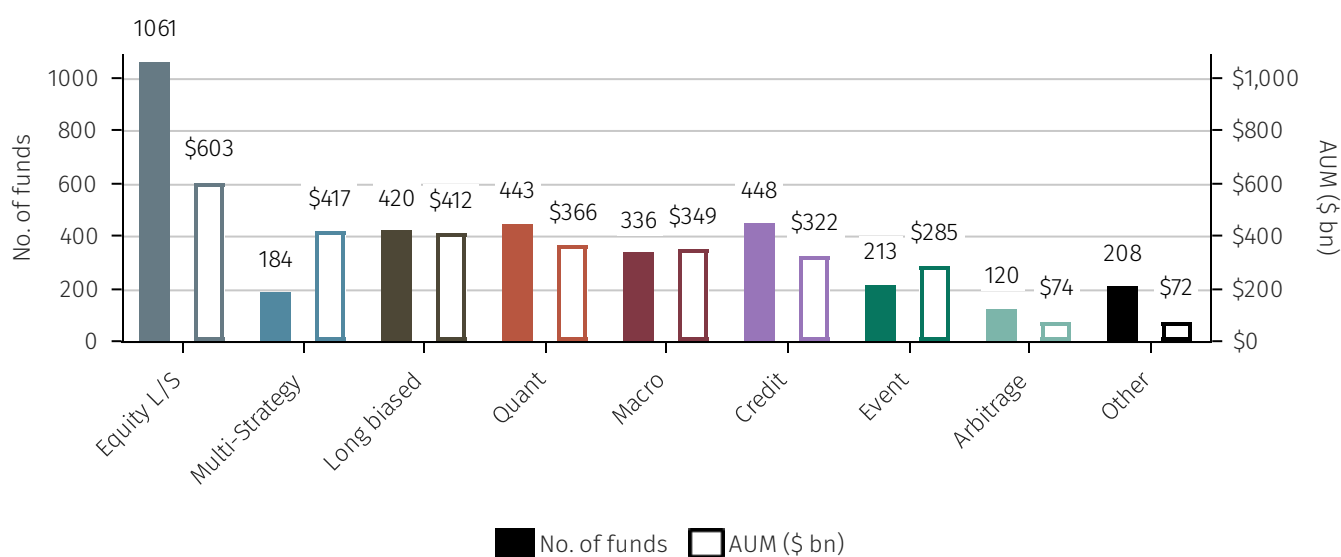
Industry assets and flows

Industry assets have seen net redemptions. This has been more than offset by positive P&L generation, primarily driven by gains from equity L/S, with material contributions also coming across the board from other strategies, although as stated above, the positive dollar P&L generated by quant strategies was small in relation to assets managed. Quant was also the only strategy to see a fall in AUM, as positive P&L was not enough to offset net investor outflows.

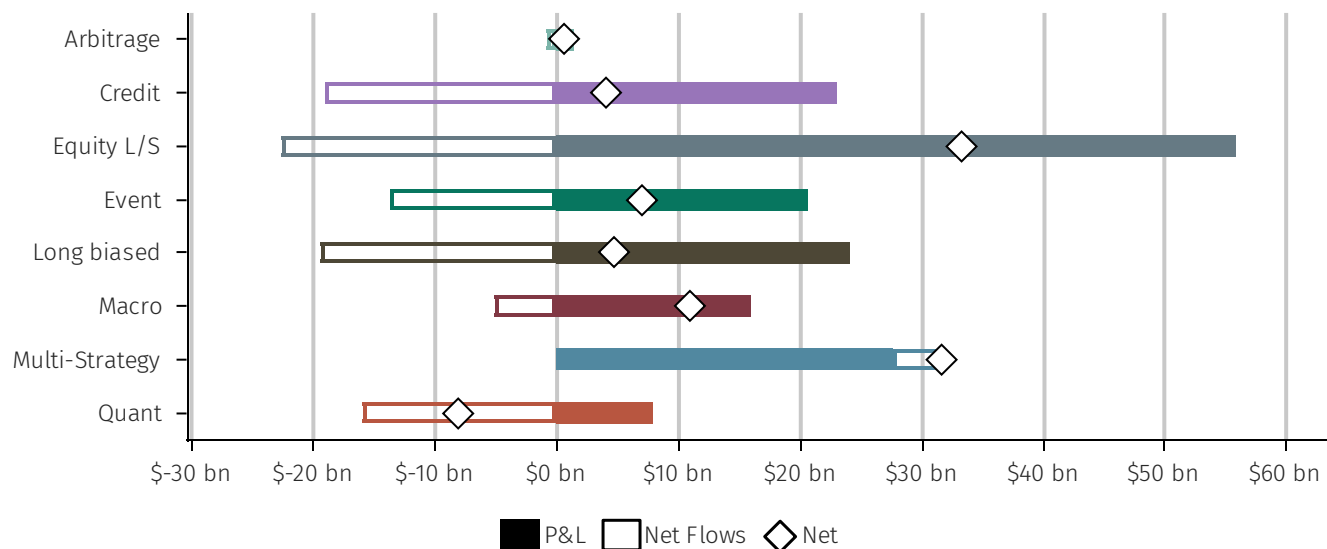
HF COMPOSITE ASSETS (5 YR)*



NUMBER OF FUNDS AND AUM

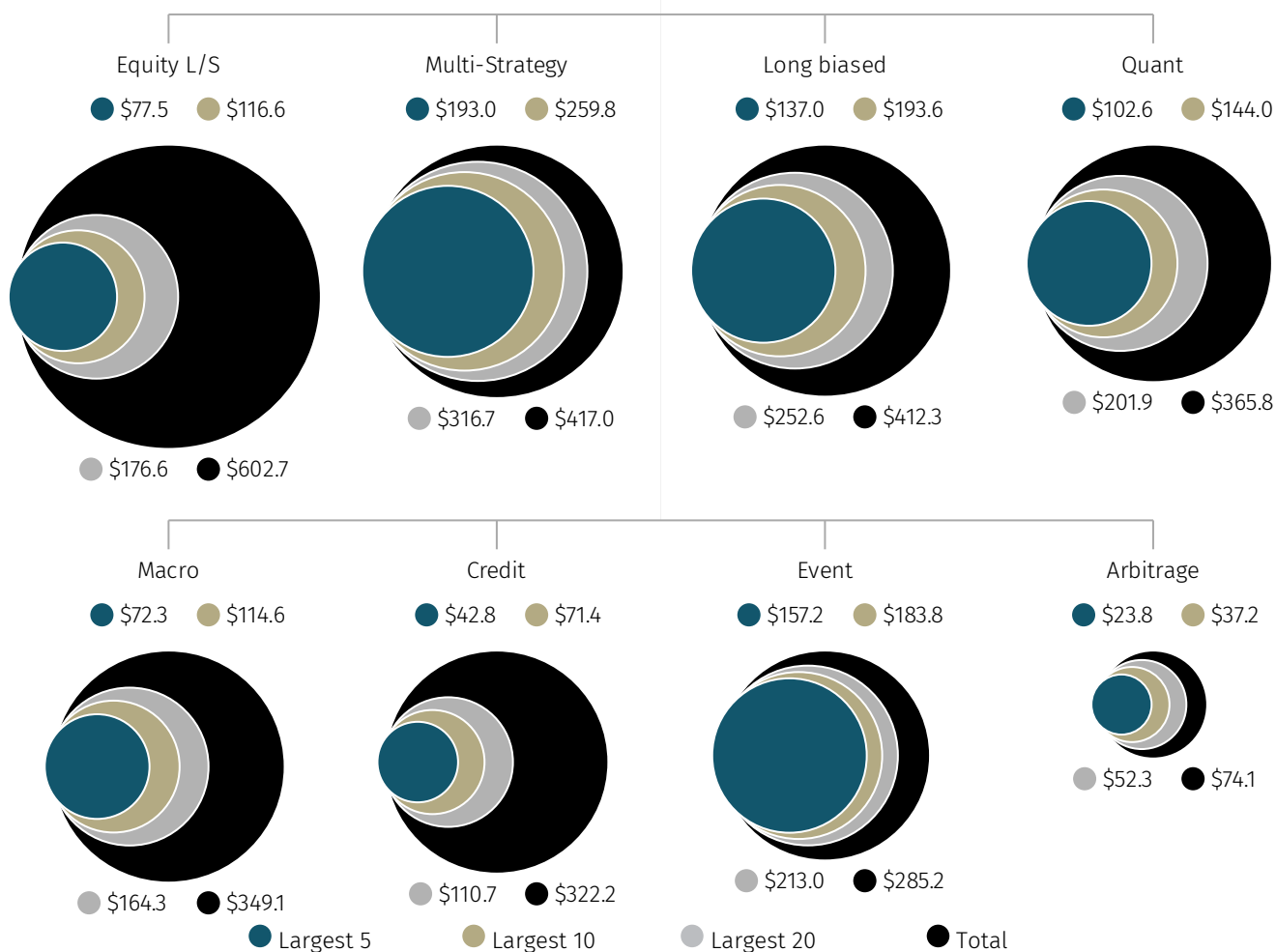


CHANGE IN AUM (1 YR)



SUB-STRATEGY FUND CONCENTRATION (\$ BN)

Hedge Fund Industry



Strategy analytics packs

Links to individual strategy chart packs below. Our full strategy page including all the chart packs can be found here: <https://www.aurum.com/hedge-fund-strategy-definitions/>

[Arbitrage strategy analytics packs](#)

[Credit strategy analytics packs](#)

[Equity long short strategy analytics packs](#)

[Event strategy analytics packs](#)

[Long biased strategy analytics packs](#)

[Macro strategy analytics packs](#)

[Multi-strategy analytics packs](#)

[Quant strategy analytics packs](#)

Terms and conditions

	Median Redemption Notice (Days)	Median Redemption Frequency	Weighted Avg. Redemption Total (Days) ¹	Weighted Avg. Management Fee	Weighted Avg. Performance Fee
Arbitrage	30	Monthly	104	1.37%	19.08%
Convertible bond (CB)	45	Monthly	92	1.39%	18.80%
Opportunistic (Opp)	60	Quarterly	153	1.34%	19.40%
Tail protection (Tail)	30	Monthly	77	1.19%	18.22%
Volatility arbitrage (Vol)	15	Monthly	73	1.45%	19.37%
Credit	65	Quarterly	170	1.33%	17.26%
Direct lending (Dir Len)	75	Quarterly	210	1.35%	14.19%
Distressed (Distress)	90	Quarterly	262	1.58%	19.67%
Multi-credit (Multi)	90	Quarterly	150	1.28%	17.76%
Municipal (Muni)	60	Quarterly	124	0.96%	5.44%
Credit RV (RV)	45	Monthly	102	1.22%	16.58%
Structured credit (Struct)	90	Quarterly	166	1.43%	17.93%
Structured credit LO (Struc LO)	30	Monthly	15	0.60%	15.13%
Equity l/s	45	Monthly	129	1.47%	19.01%
Asia pacific long/short (ELS – APAC)	30	Monthly	127	1.60%	20.31%
European long/short (ELS – EUR)	30	Monthly	88	1.30%	19.09%
Fundamental equity MN (ELS – FEMN)	30	Monthly	102	1.74%	19.38%
Global long/short (ELS – Global)	45	Quarterly	183	1.47%	19.25%
Other l/s (ELS – Other)	38	Monthly	60	1.11%	18.18%
Sector (ELS – Sector)	45	Quarterly	136	1.60%	18.39%
US long/short (ELS – US)	45	Quarterly	108	1.30%	18.83%
Event	60	Quarterly	197	1.48%	19.41%
Activist (Event – Activist)	90	Quarterly	215	1.48%	18.90%
Merger arbitrage (Event – M&A)	30	Monthly	67	1.35%	18.05%
Multi-strategy (Event - Multi)	60	Quarterly	224	1.48%	19.94%
Opportunistic (Event - Opp)	60	Quarterly	164	1.54%	19.43%
Long biased	30	Monthly	70	0.93%	10.24%
Commodities (Long - Commods)	2	Daily	14	0.70%	4.77%
Diversified growth (Long - Div Growth)	1	Daily	39	0.70%	0.70%
Equities (Long - Equity)	30	Monthly	105	1.15%	17.27%
Long biased – other (Long - Other)	30	Monthly	58	1.41%	18.80%
Macro	30	Monthly	94	1.42%	18.62%
Macro – Commodities (Commods)	30	Monthly	65	1.51%	18.57%
Macro - Emerging Markets (EM)	30	Monthly	69	1.11%	14.16%
Macro – FIRV (FIRV)	30	Monthly	123	1.56%	23.29%
Macro - Global Macro (Global)	30	Monthly	95	1.48%	18.18%
Multi-Strategy	45	Monthly	153	1.83%²	21.14%
Quant	5	Monthly	52	1.53%	18.23%
CTA (CTA)	5	Monthly	38	1.25%	17.06%
Equity MN (EMN)	30	Monthly	66	1.30%	15.58%
Macro/GAA (Macro)	5	Monthly	28	1.90%	19.12%
Risk Premia (RP)	4	Weekly	27	0.65%	5.71%
Statistical Arbitrage (Stat Arb)	30	Monthly	111	2.15%	25.22%

1. Weighted Avg. Redemption Total (Days) is the weighted Avg. of both redemptions notice days and redemption frequency days.

2. Some funds operate a pass through fee structure in addition to, or instead of, a traditional management fee. Aurum does not currently include funds which operate a pass through structure within this management fee calculation (even if they also separately charge a management fee), accordingly the weighted average management fee above excludes funds with this fee structure.

Definitions

ARBITRAGE

Strategies that look to benefit from mispricing's of the same instrument/asset or extremely closely related instrument. The strategy covers the following areas: convertible bond arbitrage, tail protection, volatility or opportunistic trades in this area, including but not limited to other areas such as capital structure arbitrage, ETF arbitrage or arbitrage of other closely related instruments.

Convertible bond (Arb – CB):

Traditionally the strategy looks to isolate mispriced components of convertible securities in order to capture a return to fair value. CB's essentially consist of a bond plus an embedded call option on the equity. Key valuation components relate to the credit (bond component) and the volatility (option and equity component). Those components other than the component believed to be mispriced are typically hedged in order to isolate the mispricing.

Tail protection (Arb – Tail):

Strategy that explicitly look to benefit from large market moves, typically either in the form of large spikes in volatility (either from implied or realised volatility), or from significant moves in the underlying spot price (long gamma) or a particular asset or assets. Some tail protection strategies also look to benefit from sudden/large moves in spread relationships, which are typically tight, but which can move to extremes during periods of stress.

Volatility arbitrage (Arb – Vol):

Traditionally the strategy looks to identify the mispricing of volatility. Funds may incorporate exposure to factors such as implied volatility, realised volatility, dividends, skew, term structure and correlation. Funds may be biased short, long or neutral to Greek exposures such as delta, vega and gamma.

Opportunistic (Arb – Opp):

Strategy that look to benefit from inconsistent/mis-pricing of the same instrument/asset or extremely closely related instruments/assets. Opportunistic arbitrage strategies typically have the flexibility to trade across multiple areas, but tend to specialise in a combination of volatility trading, convertible bonds and capital structure arbitrage trades. But they may also focus on other niche areas in order to capitalise upon perceived mis-pricing. The narrow arbitrage focus is why they are better considered as part of arbitrage, rather than in the broader multi-strategy classification.

CREDIT

Strategies that focus the vast majority of their trading on debt instruments, or instruments that are far more 'debt-like' in nature.

Credit – Credit RV (RV)

The strategy focuses on investing in investment and non investment grade securities, primarily corporate debt. The strategy takes a balanced long/short approach where the short position may be outright, related by sector, and/or within the same capital structure. Whilst not heavily trading oriented (given the associated costs) the strategy is more event-focused than passive and as such tends to have shorter investment horizons than something like the Distressed category.

Credit – Direct Lending (Dir Len)

Direct lending typically involves investing in first lien loans to middle market companies but can also encompass many other forms of middle market lending, including second lien debt, mezzanine debt and unitranche debt.

Credit – Distressed Credit (Distress)

Strategy typically invests in non-investment grade corporate – and sometimes sovereign – debt, which is frequently stressed (e.g. performing, but priced at a significant discount to par) or defaulted (e.g. where a balance sheet restructuring will occur). Some also invest in deeply discounted and/or subordinate structured product. Time horizon is typically longer dated.

Credit – Multi-Credit (Multi)

Broad credit focused strategy where a significant portfolio of their P&L is generated from a combination of relative value credit, distressed credit and/or structured credit.

Credit – Municipal Credit (Muni)

This strategy aims to generate a comparatively substantial income and achieve an additional overall return by actively overseeing collections of both tax-exempt and taxable municipal bonds. The emphasis of this strategy lies in enhancing performance by pinpointing sectors and securities in longer-term municipal bonds that are undervalued, thereby capitalising on yields and price returns through strategic duration positioning.

Credit – Structured Credit (Struct)

The strategy involves investing in synthetic structured credit and cash structured products including ABS, CLOs, CMBS, and RMBS. Investors can achieve higher returns, portfolio diversification, and tailored credit risk exposures. Repayment is supported by borrowers' contractual obligations, making structured credit an avenue for increased flexibility and potential gains in investment portfolios.

Credit – Structured Credit LO (Struc LO)

Long only or overwhelmingly long-biased structured credit strategy with some leverage. The managers add value through security selection and can take advantage of depressed security prices through wide spreads. The strategy benefits from tightening credit spreads and falling interest rates.

EQUITY LONG/SHORT

Investing in global stocks, both on the long and short side. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

US equity long/short (ELS – US):

Investing the all or the vast majority of their portfolio into US stocks, both on the long and short side. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Asia Pacific equity long/short (ELS – APAC):

Investing the all or the vast majority of their portfolio into Asian Pacific stocks, both on the long and short side. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

European equity long/short (ELS – EUR):

Investing all or the vast majority of the portfolio in European stocks, both on the long and short side. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Global equity long/short (ELS – Global):

Investing the portfolio in global stocks, both on the long and short side. The fund is agnostic to country/region to maintain flexibility. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Fundamental equity market neutral (ELS – FEMN):

Investing the portfolio in stocks, both on the long and short side. To classify as 'equity market neutral' funds are expected to run with a very tight net exposure bias, which over the longer term should be close to zero. Note, different funds use different methodologies, e.g., some may run to be 'beta neutral', while others may be cash neutral (with a tolerance band around the zero level). The distinguishing characteristic is that such funds are typically very low net at all times, but some may run with varying degrees of factor or industry exposure, while others may have more stringent risk parameters around such exposures. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Sector (ELS – Sector):

Investing the portfolio in a specific sector, both on the long and short side. The funds may or may not be agnostic to country/region to maintain flexibility, however sector specialist funds tend to be US focused given that it is a very deep/broad market with sectors that are large enough to accommodate diversified sector specific portfolios. Most funds have a fundamental bias, value and/or growth-oriented investment theses. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Other l/s (ELS – Other):

Long short equity investing, which does not readily fit into the other classification taxonomy.

EVENT DRIVEN

Broad strategy category covering funds that invest in securities of companies facing announced and anticipated corporate events. This includes, but is not limited to: M&A, Spin-offs, Company restructurings, some distressed situations (although if this is the dominating part of the strategy it will be classified as 'credit-distressed'). The strategy identifies mispriced securities with favourable risk/reward characteristics based upon differentiated views of value-unlocking catalysts, event-probabilities and post-event valuations.

Activist (Event – Activist):

Activist hedge funds invest in companies that they feel are undervalued and the managers then attempt to drive the value creation process by influencing corporate management to undertake initiatives that they feel will benefit shareholders. This

can include a number of activities, including but not limited to: capital structure restructuring, change in operating strategy/capital allocation, change in the board/management, change in corporate governance or the outright sale of the enterprise. Funds typically own large stakes in the companies they invest in as investors need to be a large enough shareholder to influence management.

Merger arbitrage (Event – M&A):

Strategy typically involves taking positions in the securities of a company being acquired in a merger or acquisition. Due to the risk of a deal-break as well as time value of money, the securities typically trade at a discount to the deal-price/value (deal-spread). Primary risk is when deals break, which can lead to asymmetric losses to the downside. Funds will typically trade cash deals and also share-for-share deals, where the fund will short the securities they expect to receive upon deal closure (locking in the deal spread). In addition to M&A, managers may also invest in other situations that involve process driven catalysts.

Multi-strategy (Event - Multi):

Whilst these are funds investing across multiple strategies, they are characterised by their overwhelming focus on the broad event-driven space and therefore placed in their own category. Such funds consistently generate a significant portion of their P&L from the primary event-driven investing categories: merger arbitrage, soft-catalyst event-driven situations (spin-offs, spin-outs, share- class arbitrage, non-mandatory shareholder elections, index-rebalancing, holdco/subsidiary relative value trade, high probability potential merger 'targets', etc.) and/or activist investing. Some funds may also allocate a portion of their capital to Distressed (which can fall under the category of event- driven investing), however, if the majority of the risk is in consistently in the distressed arena, it falls under the 'credit/distressed' categorisation.

Opportunistic (Event - Opp):

Has some similarities to the event-driven 'multi-strategy' classification however, as the name suggests, these funds tend to be very opportunistic and dynamically adjust their capital allocation between various event-driven trades. These funds tend to also be more value and soft catalyst oriented. Such funds may also place 'special situations' trades, looking to unlock value taking various positions in the capital structure (i.e., could be debt or equity). Opportunistic funds have the flexibility to trade all areas of the event space (M&A, Activist, soft catalyst and distressed investing) but will do so on an opportunistic basis, they also may concentrate a large portion (or even at times all) of the risk in a specific area, unlike event driven - multi-strategy funds, which are typically always allocated across multiple sub-strategies at all times.

LONG BIASED

Long only or overwhelmingly long-biased strategies. Covers multiple asset classes.

Equities (Long - Equity):

Long only or overwhelmingly long-biased equity strategies. Such funds still have a hedge-fund structure. Funds that are more 'mutual fund'-like are excluded from this category. Most funds have a fundamental bias, value and/or growth oriented investment theses are typically adopted. Some managers may also be more tactical/technical in their approach, taking into account flows, positioning on the street and market dynamics as part of the investment decision making process.

Diversified growth (Long - Div Growth):

A hedge fund where the majority of the capital is deployed in strategies within the long-biased categories.

Commodities (Long - Commods):

Funds that take long positions across the commodity complex (e.g., precious metals, base metals, basic materials, soft commodities, agriculture, oil, gas, power, coal & utilities product, etc.) on a passive or actively managed basis. The manager may specialises in one or more of these sub-sectors.

Other (Long - Other):

Long biased investing, which does not readily fit into the other classification taxonomy.

MACRO

Macro funds take positions (can be either directional or relative-value) in currencies, bonds, equities and commodities, based on fundamental and qualitative judgements. Investment decisions can be based on a manager's top-down views of the world (e.g., views on economy, interest rates, inflation, government policy or geopolitical factors). Relative valuations of financial instruments within or between asset classes can also play a role (or be the dominant part) in the investment process. Primary areas of focus are the liquid instruments of G10 countries, although they may also include emerging markets.

Fixed income relative value (Macro – FIRV):

Fund generates all or a substantial majority of the P&L/risk from relative movements across fixed income assets and their derivatives. Funds are typically looking to profit from arbitrage, mean-reversion or positive carry. Most traders aim to be either duration neutral or 'risk neutral' (i.e., matching DV01 across long and short positions). Most managers incorporate some use of leverage as an integral part of the strategy. Note - that some managers in the space may also trade a smaller portion of the book in more 'classic' directional macro trades, but funds in the FIRV category are generating a minority of the risk from this area.

Commodities (Macro – Commods):

These funds are primarily focused on trading commodity futures and options from both the long and short side. They can occasionally include the tactical use of equities, currencies, or fixed income instruments, but commodity futures/options should make up the bulk of the risk. The manager is typically looking for longer term trends and supply/demand imbalances within and between commodity markets.

Global macro (Macro – Global):

Macro funds take positions (can be either directional or relative-value) in currencies, bonds, equities and commodities, based on fundamental and qualitative judgements. Investment decisions can be based on a manager's top-down views of the world (e.g., views on economy, interest rates, inflation, government policy or geopolitical factors). Relative valuations of financial instruments within or between asset classes can also play a role (or be the dominant part) in the investment process. Primary areas of focus are the liquid instruments of G10 countries, although they may also include emerging markets. Macro managers that do not have a particular specialisation in areas such as commodities, emerging markets or fixed income relative value fall under this more general classification.

Emerging markets (Macro - EM):

Macro funds take positions (can be either directional or relative-value) in currencies, bonds, equities and commodities, based on fundamental and qualitative judgements. Investment decisions can be based on a manager's top-down views of the world (e.g., views on economy, interest rates, inflation, government policy or geopolitical factors). Relative valuations of financial instruments within or between asset classes can also play a role (or be the dominant part) in the investment process. Primary areas of focus are the emerging markets.

MULTI-STRATEGY

A hedge fund where the capital is deployed across multiple strategies and asset classes. Funds are typically extremely diversified and employ multiple PMs/risk taking groups.

QUANT

Systematic strategies: Funds trade securities based strictly on the buy/sell decisions of computer algorithms. Quant strategies primarily fall into the following categories: Quantitative Equity Market Neutral, Statistical Arbitrage, Quant macro/GAA (Global Asset Allocation), CTA, and risk-premia.

CTA (Quant – CTA):

CTAs (Commodity Trading Advisors) take primarily directional positions in index level or macro instruments, such as futures or FX contracts, in a systematic fashion. Technically, a CTA is a trader of futures contracts as defined by the CFTC and historically, there were many CTAs who were not systematic; such traders are more likely to be classified as 'Global Macro'. CTAs are typically extremely systematised with straight through processing from signal generation to execution. Many, but by no means all, CTAs are trend following (using historical prices to determine predictable 'trending patterns') buying into markets where prices are rising and selling where markets are falling. When rising markets slow down/stop rising, trend-followers typically reduce its position and will eventually reverse its position into a short position, which it will hold until the market starts to rally again. The strategy is known for running with profits and cutting losses. Other models used in CTAs may include carry, seasonality, mean reverting or pattern recognition systems, models driven by fundamental data or non-traditional data sources. Some CTAs can also trade very short-term signals driven by market microstructure anomalies and patterns.

Quant macro / GAA (Quant – Macro):

GAA (Global Asset Allocation) is a systematic approach to Global Macro, with managers taking positions in global markets based on quantitative analysis, taking in information based primarily on economic data, but also incorporating price related information. The strategy is highly data and technology intensive. The positions tend to be relative value based, but they may also take directional positions in instruments such as futures, FX and baskets of equities, ETFs, swaps and other instruments. Signals may be arranged into relative value asset class models, cross asset class models / directional trades. Signals are also often classified under a number of factor headings: value, carry, momentum etc.

Statistical arbitrage (Stat Arb):

Statistical arbitrage funds typically take price data and its derivatives, such as correlation, volatility and other forms of market data, such as volume and order-book information to determine the existence of patterns. These patterns can help the manager forecast the future return of a stock, often over a relatively short timeframe. Typical signal types are: mean-reversion, momentum and event-driven. Mean-reversion looks to take advantage of the phenomenon of short-term price movements occurring due to supply/demand imbalances then moving back to an equilibrium level. Momentum models look for patterns in price data that suggest that price movements will be more persistent (i.e., trend). Other statistical arbitrage funds will look to incorporate more discrete information into their process from events (e.g., publishing of analyst earnings estimates, news flow, etc.). Whilst statistical arbitrage funds tend to focus more on 'technical' models, some may also incorporate some longer-term models that are driven by fundamental data (e.g., stock value models, growth, etc.), however, if these models are the more dominant driver of risk, then the fund is likely to be classified as Quantitative Equity Market Neutral. Statistical arbitrage funds are typically run with a very low level of beta and are market neutral, however, this may not always be the case, with some funds able to take significant directional risk; however, given the higher frequency trading nature of such funds, they are not expected to have significant correlation to markets over time.

Quant equity market neutral (Quant EMN):

Traditional QEMN strategies take fundamental data, such as analyst earnings estimates, balance sheet information and cash flow statement statistics, and systematically rank/score stocks against these metrics in varying proportions. The weights of the scores of the different fundamental data sources may be fixed or dynamic. Managers may construct a portfolio using an optimisation process or by applying simpler rules combined with risk constraints so as to create a portfolio that is dollar and/or beta neutral, and typically with minimal sector exposure. Traditional QEMN portfolios consists of exposure to: Value (looking for stocks mispriced relative to their fundamental value, e.g. based on P/E, P/B, cash flow, etc.); Quality (looking at metrics such as levels of debt, stability of earnings growth, balance sheet strength); momentum (looking at past returns over a preset timeframe ranging from days to months); however, these are common factors that are relatively easy to exploit/replicate - hence the proliferation of risk-premia products that operate in this space.

Risk premia (Quant – RP):

Hedge fund risk premia products typically seek to capture the fundamental insights of a class of hedge fund strategies (hedge fund risk premia / alternative risk premia) along with a meaningful proportion of the expected returns those strategies can earn - using a dynamic but clearly defined process. Funds typically have exposure to a well-diversified portfolio of hedge-fund premia. Premia can cover everything from equity premia (Equity market neutral - trading across value, quality, growth and momentum factors, as well as EM premia), macro premia (e.g., trend following, or EM premia), to arbitrage strategies (e.g., risk arbitrage - holding a portfolio of merger targets diversified by sector and deal type; convertible arbitrage, etc.). The strategies are typically very well understood, backed up by academic research and implemented systematically.

Bond and equity indices

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