AURUM

2020 review

HEDGE FUND INDUSTRY DEEP DIVE

2020 Overview

2020 will go down in history, not only due to the tragic human cost of the COVID-19 pandemic, but also for the scars it has left on the global economy. After entering 2020 off the back of a positive economic expansion, we then saw the biggest contraction since the Great Depression. COVID-19 has also impacted human behaviour and the way we interact. As awful as the human and economic costs have been, the pandemic has also caused a number of transformations. In a recent Global Outlook[1] talk given by Larry Fink of Blackrock, he stated that COVID-19 has led to changes in the way we live, the way we consume products, how we receive medical advice and of course how many people are now working every day. Fink makes the point that out of the tragedy, we should be encouraged by how across so many industries and walks of life we have been able to successfully adapt. Business functions have, in many cases, been able transfer to remote working. The research and development of a vaccine – something that a few years ago could have been a 10-15 year process – has taken 10 months, with a number of companies now distributing. This process has also seen the new 'RNA' method of vaccine production, something Fink described as "one of the most revolutionary" things in the pharmaceutical industry for the last 50 years.

Given how COVID-19 has been such a dominating feature of everyone's lives, it would be easy to overlook a number of other significant themes and events. Key stories of the year include continuing US/China tensions, the US Elections, Brexit, the huge moves in oil and the interactions between these themes and the ongoing pandemic. Another key thematic of note, is how sustainable investing has now become more mainstream and represents one of the biggest structural shifts.

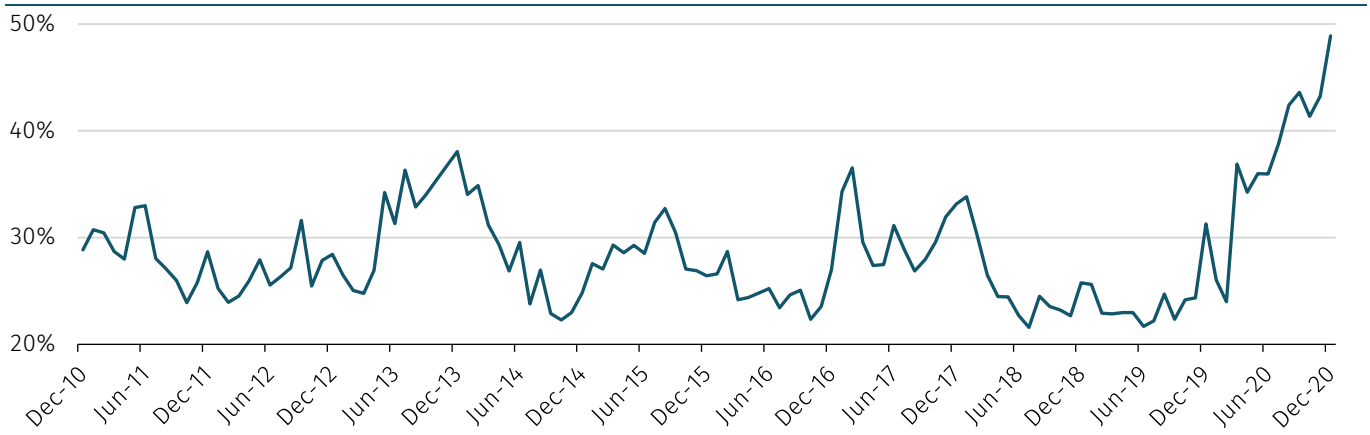
Markets review

To put hedge fund industry performance in context it is helpful to recall what happened in major markets across the year. Global equities, and many other asset classes, suffered major corrections in February and March as news of COVID spread across much of the globe. Central bank intervention bolstered investor confidence and sparked strong rallies across assets: global equities finished the year up mid-teens as a percentage, lead by strength in the US markets, whilst Europe, UK and Hong Kong equities struggled. Energy commodities sold off significantly due to the impact of COVID-19 on global industrial output and consumer demand. Meanwhile, 'safe haven' assets such as gold and silver saw a rally. On the fixed income side, global yields fell across the board.

Hedge fund industry performance review

The hedge fund industry finished the year up 8.7%[2], a slightly higher return than the average of the previous four years. However, when one considers that the hedge fund industry was down nearly 10% after Q1, to finish where it did was quite a turnaround. 2020 was also characterised by a massive increase in hedge fund performance dispersion as the chart below clearly illustrates, from March to the end of the year the differential between the top and bottom decile hedge fund performers - as measured by the rolling 12-month percentage return - shot up from below 25% to nearly 50%. This is well beyond anything witnessed in the last 10 years. Global equity indices were down over 20% in Q1, but then saw a huge rebound (40-50%) in the subsequent nine months to finish up strongly for the year. At the same time, global bonds gained in the high single digits.

10th – 90th PERCENTILE 12M ROLLING PERFORMANCE SPREAD



Presented on an equally weighted basis

1. *Larry Fink – Blackrock Outlook Webcast 19th January 2021.*
2. *Source: Aurum's proprietary Hedge Fund Data Engine database containing data on just under 4,000 hedge funds representing in excess of $2.9 trillion of assets as at December 2020. Information in the database is derived from multiple sources including Aurum's own research, regulatory filings, public registers and other database providers. By fund assets (Dec): 86%. By no. of funds (Dec): 73%.*

All figures and charts use asset weighted returns unless otherwise stated. All data is sourced from Aurum Hedge Fund Data Engine.
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/

Hedge fund industry performance review contd.

From a master-strategy perspective, equity long/short hedge funds led the way, returning nearly 18% over the year, followed by multi- strategy (16%), arbitrage (13%), event-driven (13%) and at the bottom of the pile were quant hedge funds (-5%). It should be noted that when looking at quant funds on the sub-strategy level one can see that equity statistical arbitrage was a significant outperformer (10%), while areas like quant equity market neutral (-17%) and risk premia strategies (-8%) were significant detractors. Credit delivered a mediocre 3% as the strategy took a relatively longer time to recover from the significant losses of March, where it was the worst performing of the hedge fund master strategies.

When considering 2020, one can consider it as a 'tale of two halves', or more accurately, the tale of Q1 and the subsequent nine months. Perhaps unsurprisingly it was long biased strategies that suffered the most in Q1 (as can be seen on page 4), as global markets were routed. Markets were thrown into turmoil as the world was forced to confront the sheer extent of the COVID-19 outbreak, particularly after the WHO declared it as a pandemic on 11th March. The huge spike in volatility was not restricted to equities, with credit and commodities (particularly energy) experiencing one of the worst sell-offs ever witnessed. Credit hedge funds were down nearly 13% in March alone.

As can often be the case when there is a large and sudden shock sell-off event, it was accompanied with rapid deleveraging by the hedge fund community. Basis trades were hit first, which affected some of the multi-strategy and macro funds and then contagion spilled over into other asset classes. Losses from equity PMs on their long books forced them to take down risk. With many of the same securities held across the hedge fund universe, a domino effect of deleveraging spread across other strategies, leading to short books suffering rapid losses as others looked to cover in an effort to cut risk in response to increased portfolio volatility. Mid-March, many market neutral and relative value-oriented hedge funds, which traditionally run a low beta, were nursing losses many orders of magnitude larger than anything their risk systems and scenario analytics had predicted. Multi-strategy funds had their worst performance in March (-4%) since the GFC[3]. Some master strategies saw significantly more dispersion than others; for example: arbitrage as a strategy was only down just under 3%; however, there was huge variation under the surface, with tail protection products having a bumper quarter, while other areas such as volatility arbitrage were down over 5%. At the headline level, macro funds lost over 6%, however, there was significant dispersion between the historically more 'risk on' biased EM macro (down over 12%) and areas like commodities (that were flat on the month). After March, in response to the unprecedented liquidity injection and stimulus packages announced across the world, we saw risk assets rise substantially and every hedge fund master strategy post extremely strong performance.

Sub-strategy performance

Looking at the sub-strategy performance there are some clear winners and losers. Asia Pacific equity long/short funds finished the year up nearly 27% as well as significantly restricting Q1 losses; most likely a function of not having to deleverage their books as aggressively relative to the rest of the world. Many such funds were also able to benefit from buoyant Chinese equity markets, which enjoyed an exceptionally strong year, as well as the Chinese market being relatively more insulated from the global meltdown. In fact, equity long/short as a grouping did well on the year, in spite of the fact that certain equity sub-strategies were badly hit in Q1. Over the course of the year they were able to restrict the downside relative to broader equity markets but deliver a comparable or excess return – so one could say that many added value from a risk-adjusted perspective.

Activist event managers also enjoyed a stellar Q2-Q4 after being amongst the hardest hit of the sub-strategies in Q1. This, however, is not a huge surprise given this area tends to carry a relatively high beta.

Arbitrage strategies ultimately performed well, in particular opportunistic arbitrageurs who were able to allocate capital into highly dislocated markets post the March sell-off. As already mentioned above – tail protection strategies did their job in Q1, but then gave back gains the rest of the year, as both implied and realised volatility levels fell.

One strategy somewhat 'lost in the middle' but worthy of note was fixed income relative value trading. During March the US Treasury markets became distorted, disrupting US bond and cash future relationships. This left highly levered fixed income relative value funds sitting on very large mark-to-market losses in the middle of March. However, as the Federal Reserve stepped in to intervene, the pressure on the market eased and allowed many in that strategy – particularly those with the strongest balance sheets/financing arrangements and most robust businesses – to make exceptionally strong returns from the second half of March onwards.

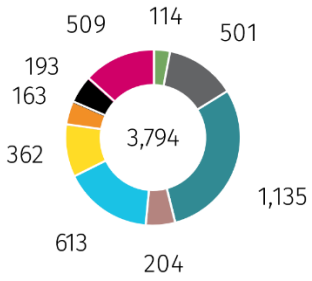
At the bottom of the hedge fund sub-strategy league table are four of the five quant sub-strategies. Equity statistical arbitrage managers were able to broadly weather the storm of Q1, in spite of historic stock relationships/spreads being pushed to extreme levels and they went on to make very strong risk-adjusted returns in the aftermath. The rest of the quant universe did not fare so well. It was a year to forget for both quant equity market neutral funds and many funds operating in the risk premia universe. There is certainly some 'crossover' between these two strategies, with many equity neutral models highly correlated/similar to some of the commoditised 'premia' strategies. Quant macro, which is dominated by a small number of players from an asset perspective, had a poor year, whilst CTAs, dominated by trend-followers, arguably failed to deliver the much needed 'crisis alpha' in Q1 (as discussed in a recent blog piece).

When evaluating performance over a multi-year period (see page 5), long biased strategies, which run with a higher beta, performed the best. This is unsurprising given the strong rally in risk assets over the period, though the strategy provided less insulation in periods of market sell-offs, such as witnessed in 2018 and more recently in February and March 2020. Of more interest from an 'alpha' perspective, multi-strategy funds have compounded at a similar return to equities, but delivered a much higher Sharpe ratio (1.5). Multi-strategy funds remain a core allocation across Aurum products for their higher risk-adjusted returns over a cycle, strong risk control and the diversification they typically provide.

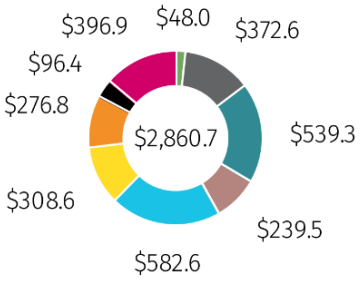
3. Great Financial Crisis

Key Numbers

NUMBER OF FUNDS

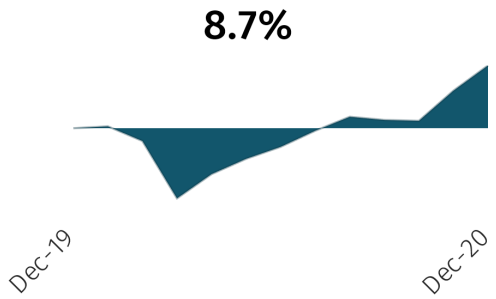


AUM ($ BN)

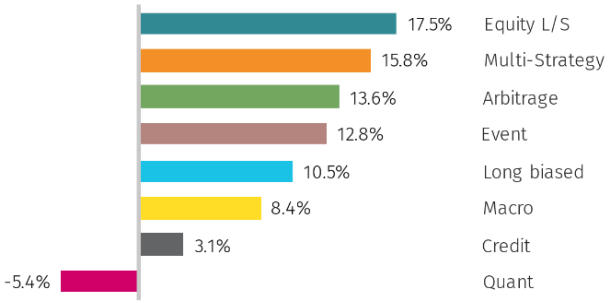


Arbitrage | Credit | Equity L/S | Event | Long biased
Macro | Multi-Strategy | Other | Quant

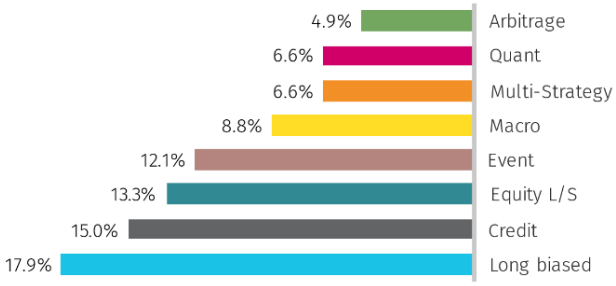
HF COMPOSITE* NET RETURN (1 YR)



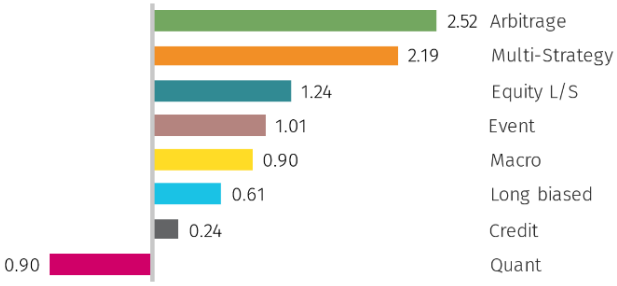
MASTER STRATEGY NET RETURN (1 YR)



STANDARD DEVIATION (1 YR)



SHARPE RATIO (1 YR)*

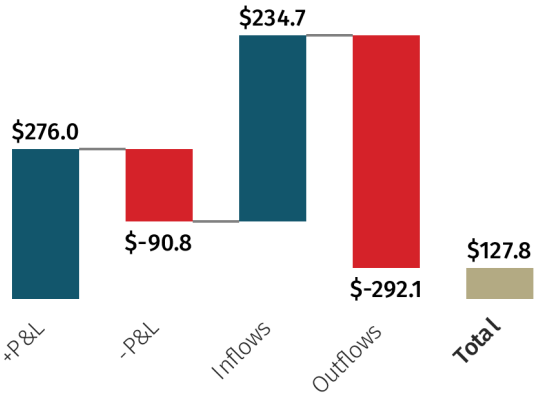


NET POSITIVE/NEGATIVE MONTHS (1 YR)

66.7%
positive
months

33.3%
negative
months

AUM CHANGE $BN (1 YR)



*Risk Free Rate = period average of 3-month US Libor 0.60%.
*HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index.
Source: Aurum Hedge Fund Data Engine.

2020 Performance

NET RETURN OF MASTER STRATEGIES (1 YR)

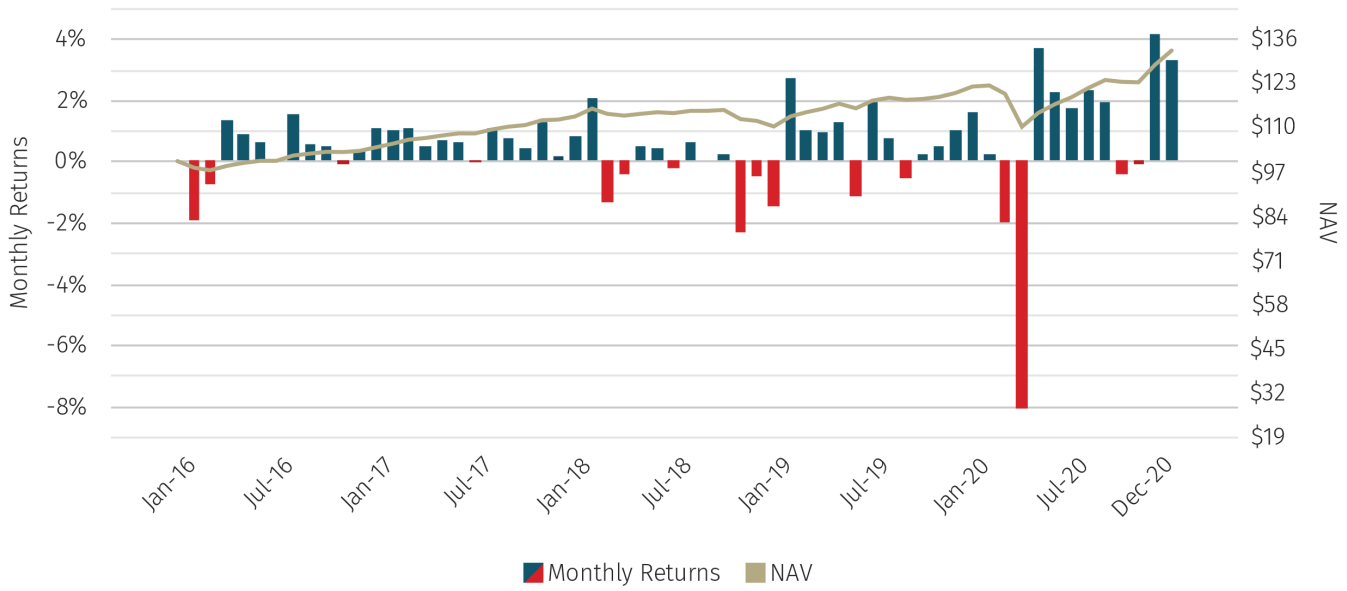
Net Performance[3]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	12 month return
Arbitrage	0.83%	1.71%	-2.77%	1.01%	0.85%	2.18%	2.04%	0.98%	0.97%	0.27%	2.14%	2.71%	13.61%
Credit	0.72%	-0.64%	-12.91%	2.53%	2.79%	2.61%	1.35%	1.33%	0.59%	0.34%	3.44%	1.99%	3.07%
Equity L/S	-0.07%	-1.94%	-8.08%	5.77%	3.36%	2.24%	2.40%	2.94%	-0.01%	0.12%	5.66%	4.69%	17.54%
Event	-0.18%	-1.69%	-7.82%	4.48%	2.40%	2.06%	2.03%	2.49%	0.02%	-0.13%	5.53%	3.65%	12.85%
Long biased	-0.02%	-4.21%	-11.78%	6.56%	2.88%	2.37%	3.97%	3.01%	-1.64%	-0.41%	7.17%	3.64%	10.51%
Macro	0.50%	-0.51%	-6.23%	2.18%	2.63%	1.31%	2.04%	1.69%	-0.89%	0.15%	3.05%	2.53%	8.39%
Multi-Strategy	1.09%	0.30%	-3.98%	3.04%	1.98%	2.41%	1.95%	1.38%	0.76%	0.54%	2.35%	3.18%	15.83%
Quant	0.09%	-3.02%	-4.31%	0.59%	-0.11%	-0.89%	1.27%	0.01%	-1.30%	-1.02%	0.54%	2.86%	-5.35%
HF Composite*	0.25%	-2.02%	-8.08%	3.72%	2.26%	1.73%	2.29%	1.93%	-0.43%	-0.12%	4.13%	3.32%	8.68%

NET RETURN OF SUB-STRATEGIES (1 YR)

Net Performance[3]	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	12 month return
EL/S - APAC	-0.82%	0.34%	-4.66%	3.99%	3.04%	4.57%	5.32%	3.00%	-0.87%	2.12%	2.85%	5.74%	26.96%
EL/S - Sector	0.12%	-1.72%	-11.10%	7.81%	5.81%	3.69%	2.15%	3.54%	0.85%	0.91%	6.54%	5.54%	25.23%
Event - Activist	-2.23%	-5.26%	-11.02%	10.50%	5.87%	2.55%	3.55%	5.15%	-1.29%	-1.17%	13.26%	4.25%	23.99%
Arb Opportunistic	1.25%	0.46%	-9.84%	3.04%	2.26%	4.02%	4.11%	2.50%	1.71%	0.46%	3.62%	5.10%	19.35%
Tail Protection	0.90%	7.63%	24.16%	-5.69%	-2.28%	0.30%	-1.08%	-1.16%	-0.47%	0.13%	-4.43%	1.29%	17.57%
Other	0.71%	-1.77%	-4.90%	3.78%	2.59%	2.66%	3.36%	2.96%	0.13%	-0.64%	4.70%	2.03%	16.31%
EL/S - Global	0.05%	-1.95%	-7.72%	5.65%	2.31%	1.19%	1.92%	3.77%	-0.46%	-0.03%	5.88%	5.09%	15.95%
Multi-Strategy	1.09%	0.30%	-3.98%	3.04%	1.98%	2.41%	1.95%	1.38%	0.76%	0.54%	2.35%	3.18%	15.83%
Convert Arb	0.87%	0.91%	-6.29%	3.21%	1.23%	2.67%	3.38%	2.46%	0.87%	0.76%	2.98%	1.92%	15.61%
EL/S - US	-0.30%	-3.00%	-9.01%	6.95%	3.41%	1.17%	2.85%	3.22%	-0.77%	-0.78%	7.55%	4.37%	15.52%
Event - Opportunistic	0.24%	-2.26%	-9.66%	5.02%	2.61%	2.15%	2.44%	2.93%	0.03%	-0.10%	6.10%	4.81%	14.15%
EL/S - Other	-2.02%	-3.54%	-12.86%	6.24%	1.69%	5.37%	4.85%	1.59%	-1.36%	0.53%	7.65%	5.76%	12.74%
Long biased	-0.02%	-4.21%	-11.78%	6.56%	2.88%	2.37%	3.97%	3.01%	-1.64%	-0.41%	7.17%	3.64%	10.51%
EL/S - Europe	0.38%	-1.86%	-4.22%	3.20%	2.41%	1.45%	1.76%	1.33%	0.53%	-1.14%	3.30%	2.74%	10.04%
Stat Arb	0.94%	-1.04%	-1.95%	2.24%	0.57%	3.09%	1.06%	1.62%	-0.01%	-0.02%	0.58%	2.45%	9.84%
Global Macro	0.32%	-0.53%	-4.97%	2.21%	2.27%	0.73%	2.07%	2.30%	-0.93%	0.19%	3.20%	2.63%	9.61%
Fixed Income RV	0.96%	0.78%	-1.44%	2.04%	1.48%	1.18%	0.82%	0.99%	0.48%	0.25%	0.84%	0.54%	9.26%
Event - Multi-Strategy	0.41%	0.20%	-5.28%	2.06%	1.31%	1.97%	1.27%	1.45%	0.43%	0.15%	2.31%	2.71%	9.11%
Fundamental EMN	0.08%	-1.59%	-6.26%	3.55%	1.10%	1.54%	1.13%	1.12%	0.80%	0.76%	3.29%	3.52%	9.00%
Event - Merger Arb	0.34%	-0.45%	-6.17%	3.94%	0.65%	1.20%	1.13%	0.44%	0.83%	0.59%	3.44%	2.76%	8.67%
Commodities	-1.58%	-1.25%	-2.84%	4.83%	0.72%	0.31%	1.91%	0.70%	-0.66%	0.21%	2.61%	2.83%	7.79%
EM Macro	0.80%	-1.26%	-12.36%	1.88%	4.64%	2.78%	3.13%	1.20%	-2.26%	-0.05%	4.93%	4.03%	6.36%
Distressed Credit	0.66%	-1.39%	-13.42%	3.42%	2.79%	2.66%	1.13%	1.64%	0.87%	-0.12%	5.49%	2.58%	5.12%
Vol Arb	0.51%	0.98%	-5.19%	1.32%	0.79%	1.03%	0.74%	-0.30%	0.86%	-0.08%	2.49%	0.69%	3.69%
Credit	0.75%	-0.35%	-12.71%	2.16%	2.80%	2.59%	1.44%	1.21%	0.48%	0.52%	2.62%	1.72%	2.21%
CTA	0.45%	-2.10%	-1.48%	0.05%	-0.51%	-1.00%	2.30%	-0.65%	-1.67%	-0.86%	1.45%	4.79%	0.55%
Quant Macro/GAA	-0.80%	-2.60%	-5.15%	1.32%	-0.34%	-0.21%	0.28%	0.26%	-0.69%	0.09%	1.79%	1.48%	-4.67%
Risk Premia	-0.36%	-3.59%	-7.43%	0.00%	-0.79%	-0.29%	1.16%	0.70%	-0.63%	-1.73%	2.33%	2.61%	-8.12%
Quant EMN	0.81%	-5.15%	-5.61%	0.12%	0.81%	-3.60%	1.33%	-0.51%	-2.67%	-3.03%	-3.84%	2.69%	-17.49%

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

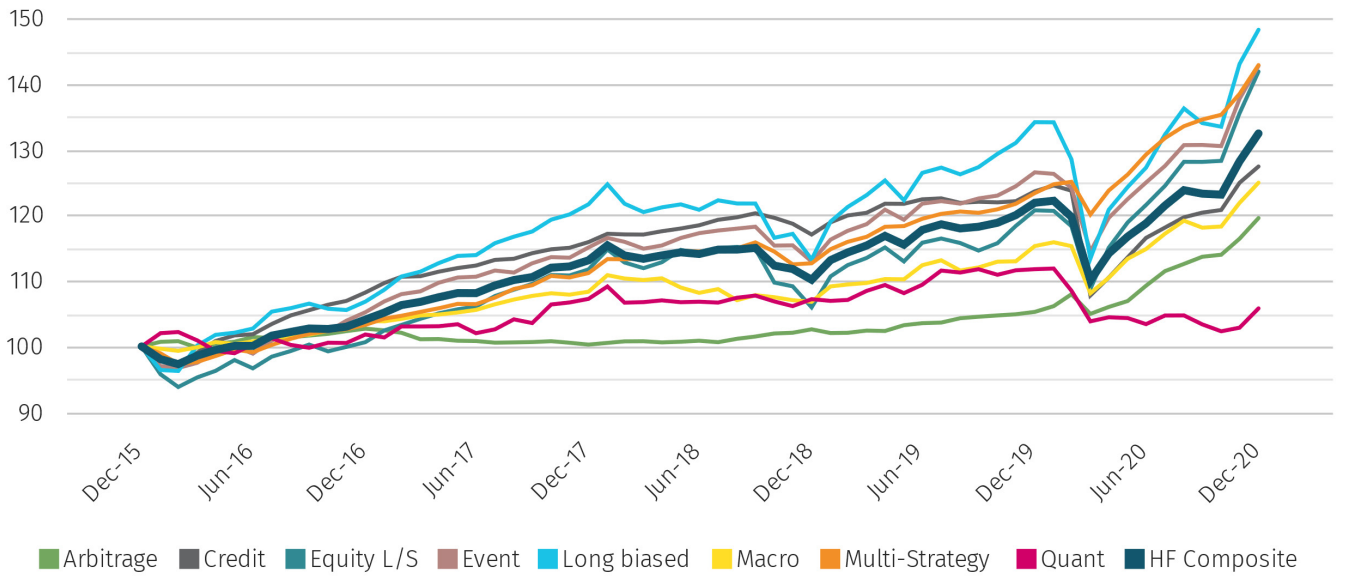
HEDGE FUND COMPOSITE* NET MONTHLY RETURN (5 YR)



NET RETURN OF MASTER STRATEGIES (5 YR)

Annual Perf	2016	2017	2018	2019	2020	5Yr CAR	5Yr Vol	5Yr Sharpe
Arbitrage	2.71%	-2.37%	2.33%	2.59%	13.61%	3.64%	2.77%	0.78
Credit	8.22%	7.11%	0.99%	5.63%	3.07%	4.97%	6.87%	0.53
Equity L/S	0.65%	11.03%	-5.18%	13.97%	17.54%	7.26%	7.88%	0.75
Event	5.21%	9.40%	-1.86%	12.05%	12.85%	7.39%	6.41%	0.92
Long biased	6.83%	13.91%	-6.92%	18.50%	10.51%	8.20%	9.52%	0.73
Macro	3.89%	4.29%	-1.42%	7.96%	8.39%	4.56%	4.54%	0.69
Multi-Strategy	3.29%	7.66%	1.34%	9.51%	15.83%	7.41%	3.84%	1.51
Quant	1.81%	5.34%	-0.04%	4.27%	-5.35%	1.13%	4.33%	-0.05
HF Composite*	4.09%	8.69%	-2.62%	10.66%	8.68%	5.79%	5.86%	0.74

MASTER STRATEGY AND HF COMPOSITE* CUMULATIVE RETURN (5 YR)



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

Performance Dispersion and Correlation

The average headline figures can only tell one so much of course. In the report on pages 7-8 one can see some of the extreme levels of performance dispersion, not just across hedge funds in general but within the broader master strategies. This is important to note, especially when looking at broad correlation figures between master strategies (see page 9), which would seem to indicate extremely high levels of cross-correlation – even when viewed over a five-year period. On the face of it, those correlation figures would suggest that a top-down 'diversify by strategy' approach would be limited in its benefits of reducing overall portfolio risk. But the dispersion figures shown on page 7, suggest that there is a significant degree of heterogeneity within certain strategies, with fund selection being the critical differentiating factor. Indeed, the candlestick charts on pages 7 and 8 show that 2020 dispersion was material across most strategies; both in absolute terms as well as in relation to historic levels.

Strategy	Average (10yr) - 12m Rolling Spread 10-90th Percentile	Dec-20 - 12m Rolling Spread 10-90th Percentile	Elevation. Current levels / 10yr Average levels
Arbitrage	24.6%	59.2%	140.6%
Equity L/S	29.0%	58.0%	99.7%
Multi-Strategy	20.7%	36.2%	74.8%
Long biased	32.5%	55.5%	70.9%
HF Composite*	**27.6%**	**44.8%**	**62.5%**
Event	22.6%	33.5%	48.2%
Macro	22.8%	32.1%	40.9%
Quant	24.8%	33.3%	34.1%
Credit	17.8%	23.9%	34.2%

Given the extreme market moves of Q1 – it is worth taking a closer look at March in particular. In March the differential between the top and bottom deciles was significant, with the bottom decile of funds losing over 22% and the top decile up nearly 4%. At a strategy level, some of the ranges were even more stretched. Within arbitrage, for example, there are a number of volatility-based strategies, and depending on whether there were biases in the book to be long tail risk or short tail risk, the bottom decile of funds lost ~ 15% or greater (with some funds 'blowing up' altogether), while the top decile made over 35%. Macro funds shared some similar characteristics, with the worst decile losing over 17% while top performers made nearly 10%. This is not a surprise, given a number of directional macro managers are well known buyers of convexity and in periods of high volatility/dislocation expect to make outsized returns. Within the underperforming decile were macro funds that had more of 'long risk asset' bias, in particular to areas like emerging markets.

Whilst credit was a known area of difficulty (given the general long bias and exacerbated impact typically experienced in liquidity crises), the top decile of funds were still able to protect capital and post a small positive return, meanwhile the bottom decile lost over 25%. Those figures were roughly comparable, albeit ever so slightly better, with the equity long/short space; the figures highly influenced by the manager's net beta exposure and tolerance to deleveraging, among other factors.

Unsurprisingly, long biased funds struggled across the board in March, with even top decile funds down nearly 5% on the month. Interestingly, the only other master strategy where the top decile was still unable to post a positive return was the event master strategy.

Quant is an interesting sector to review. As indicated earlier, the -5% asset weighted return put the group at the bottom of the pack for the year overall. However, as a group it persistently exhibited a notable degree of dispersion all year. In March, the top decile delivered returns over 7%, while the bottom lost more than 11%. For the year, the top decile still delivered over 15%. The bottom decile was the worst of all the master strategies, losing over 15%. As a strategy, asset-weighted returns for quant has been significantly skewed downward by a small number of very large players having performed particularly poorly in 2020. As can be seen, both median and average returns for quant are actually marginally positive for the year.

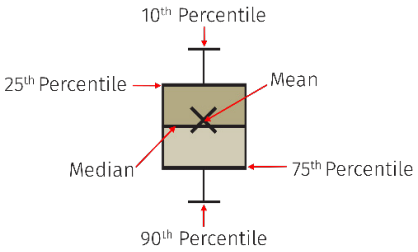
The historic blowout in dispersion in 2020 helped to emphasise the critical importance of manager and fund selection. The year was a roller coaster and exceptionally difficult to navigate, however, there were clear winners and losers to be found in each strategy area.

It's also important and interesting to look at intra-strategy correlations (see the chart on the bottom of page 9). Some strategies exhibited much higher intra-strategy correlation (average correlation of one fund in a strategy to all the others in the same strategy) than others. This makes intuitive sense, for example, in an area like long-biased strategies, where the funds are more likely to be carrying a much higher beta to a common risk factor – namely the markets – than more 'neutral' or RV strategies. This has ramifications for an allocator's ability to diversify risk and add value through fund selection. If one looks at where Aurum typically focusses, it is in areas such as macro (which includes commodities), quant and multi-strategy (which includes exposure to areas like volatility trading, quant and discretionary equity market neutral, amongst others). In other words, our focus is more on the left-hand side of that chart. Areas more on the right-hand side are likely to have funds that exhibit more similar characteristics and behave in a similar way – this can be of critical importance at a time of crisis (as was seen for the longer -biased strategies in March).

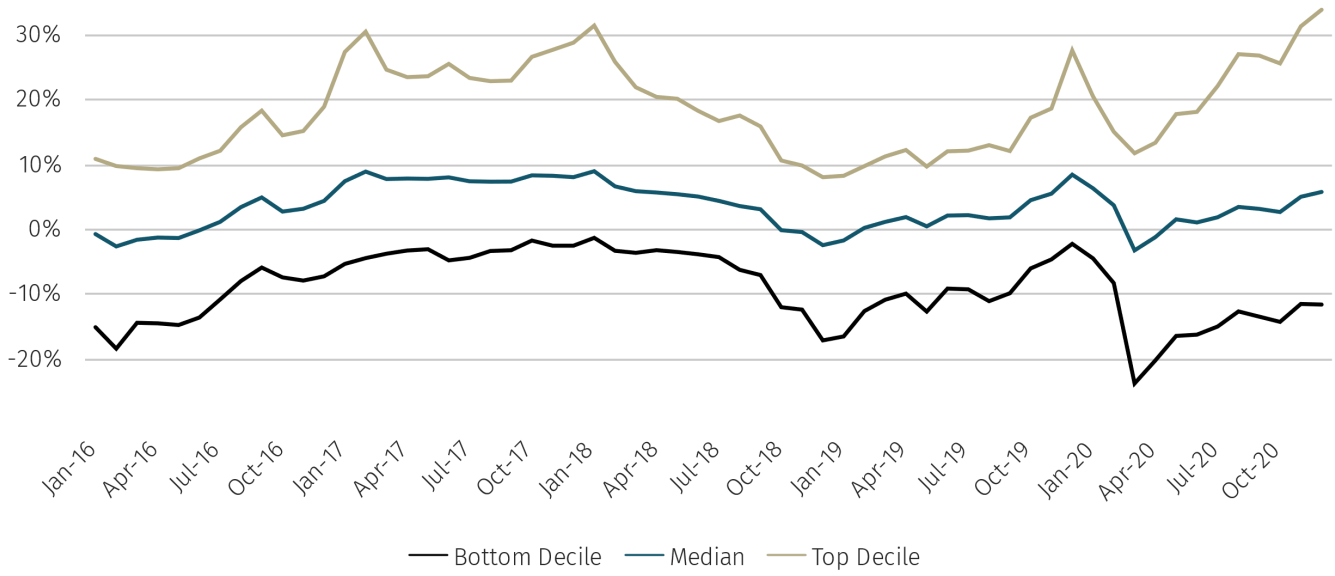
Certain sub-strategies also tend to exhibit a much lower beta/correlation to the broader hedge fund universe (see page 10), particularly areas like fixed income RV, commodities trading, statistical arbitrage and volatility trading. These are all core components of macro, quant and multi-strategy – the primary areas of focus at Aurum.

Equally weighted returns.
**HF Composite = Aurum Hedge Fund Data Engine Equally Weighted Composite Index*
Source: Aurum Hedge Fund Data Engine.

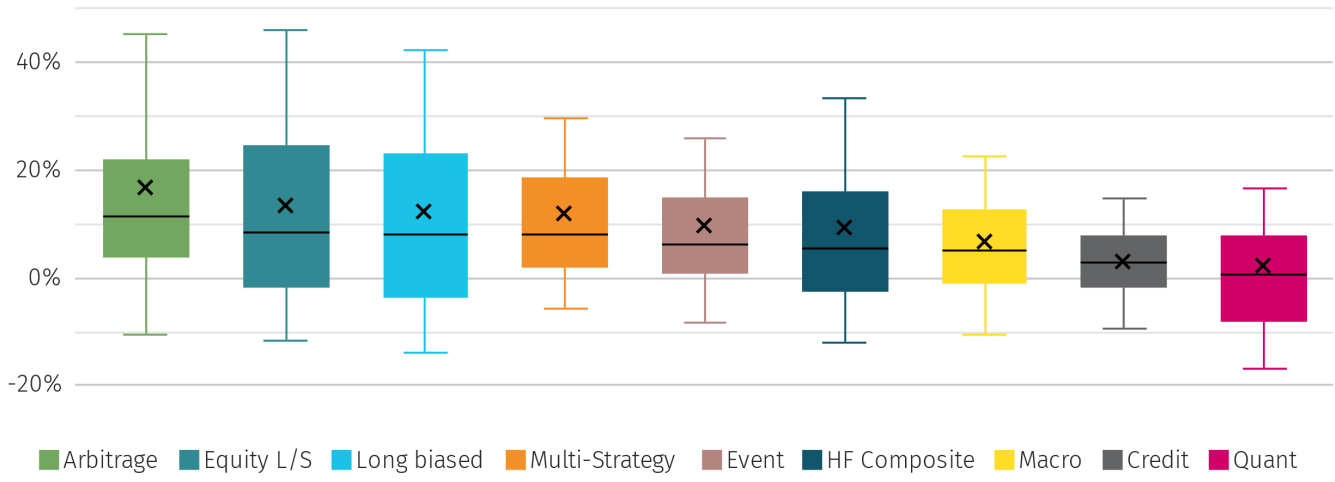
Performance Dispersion



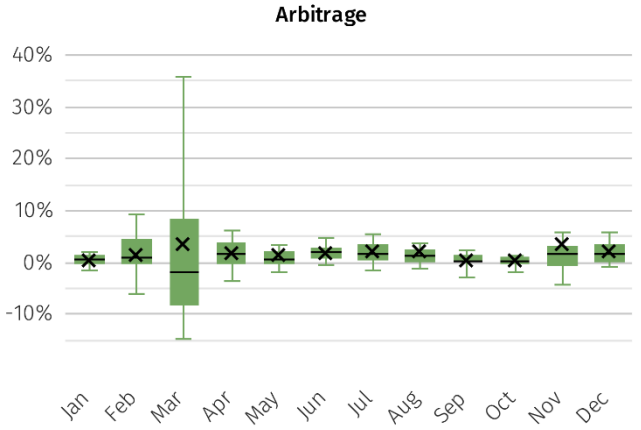
HEDGE FUND DISPERSION – 12M ROLLING RETURN

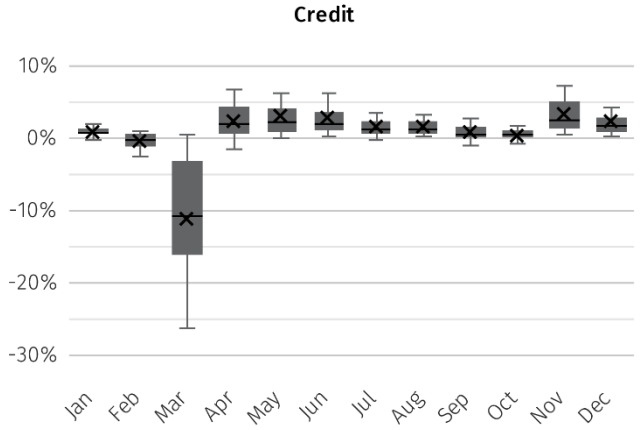


2020 MASTER STRATEGY PERFORMANCE DISPERSION



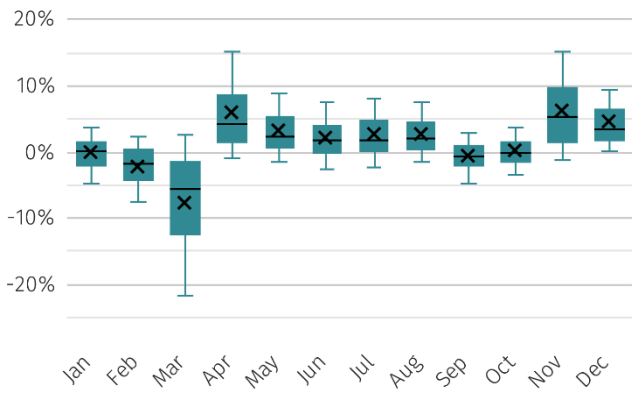
MASTER STRATEGIES NET MONTHLY RETURN DISTRIBUTION



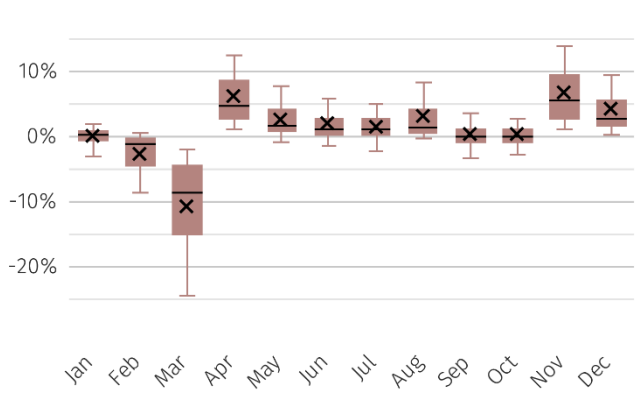


Equally weighted returns.
HF Composite = Aurum Hedge Fund Data Engine Equally Weighted Composite Index
Source: Aurum Hedge Fund Data Engine.

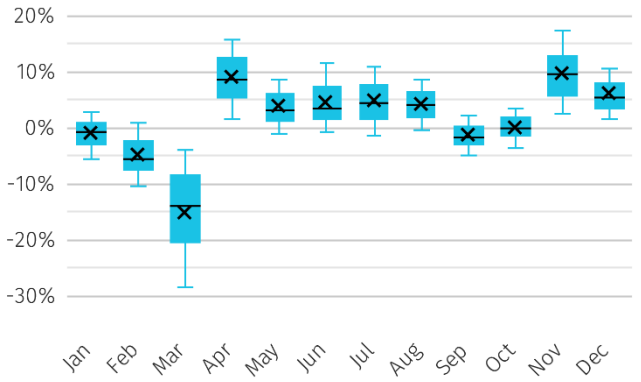
Equity L/S



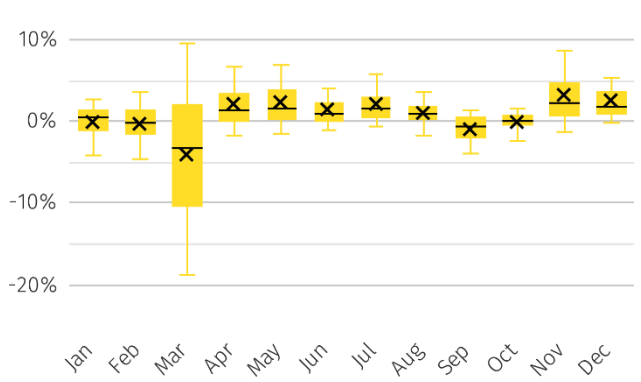
Event



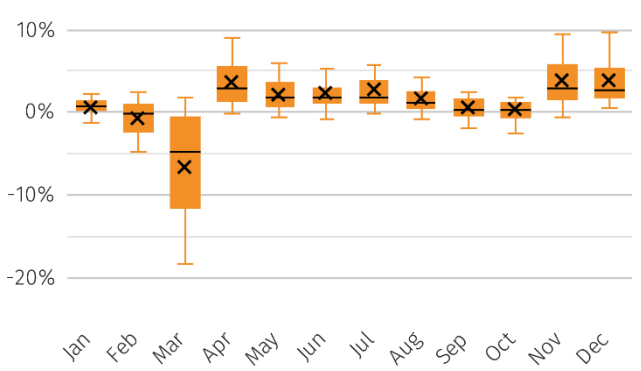
Long biased



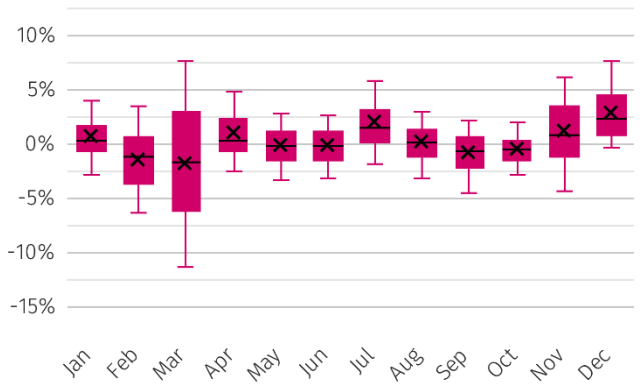
Macro



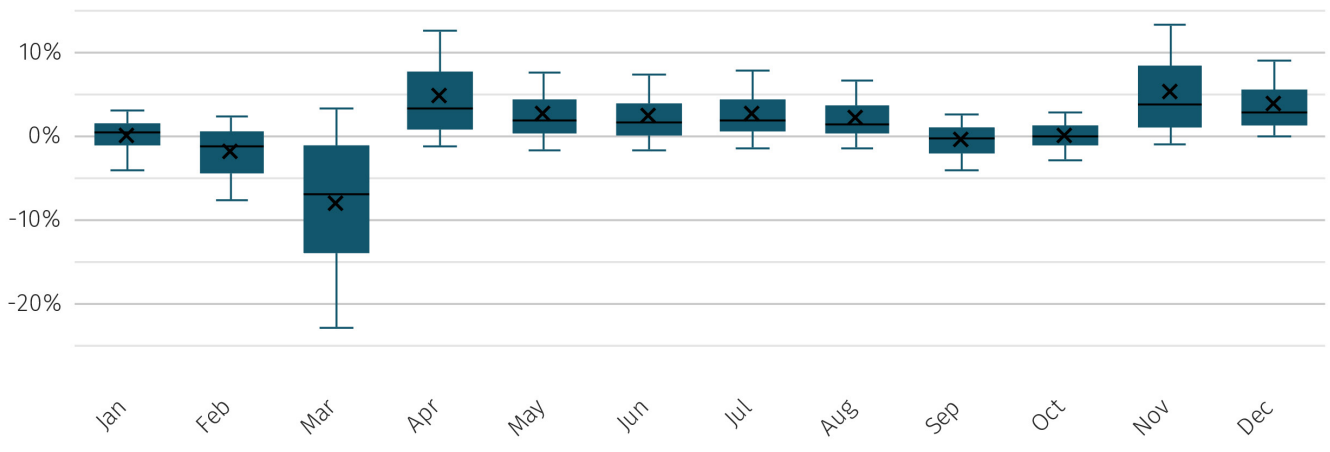
Multi-Strategy



Quant



HF Composite



Equally weighted returns.
HF Composite = Aurum Hedge Fund Data Engine Equally Weighted Composite Index
Source: Aurum Hedge Fund Data Engine.

Correlation

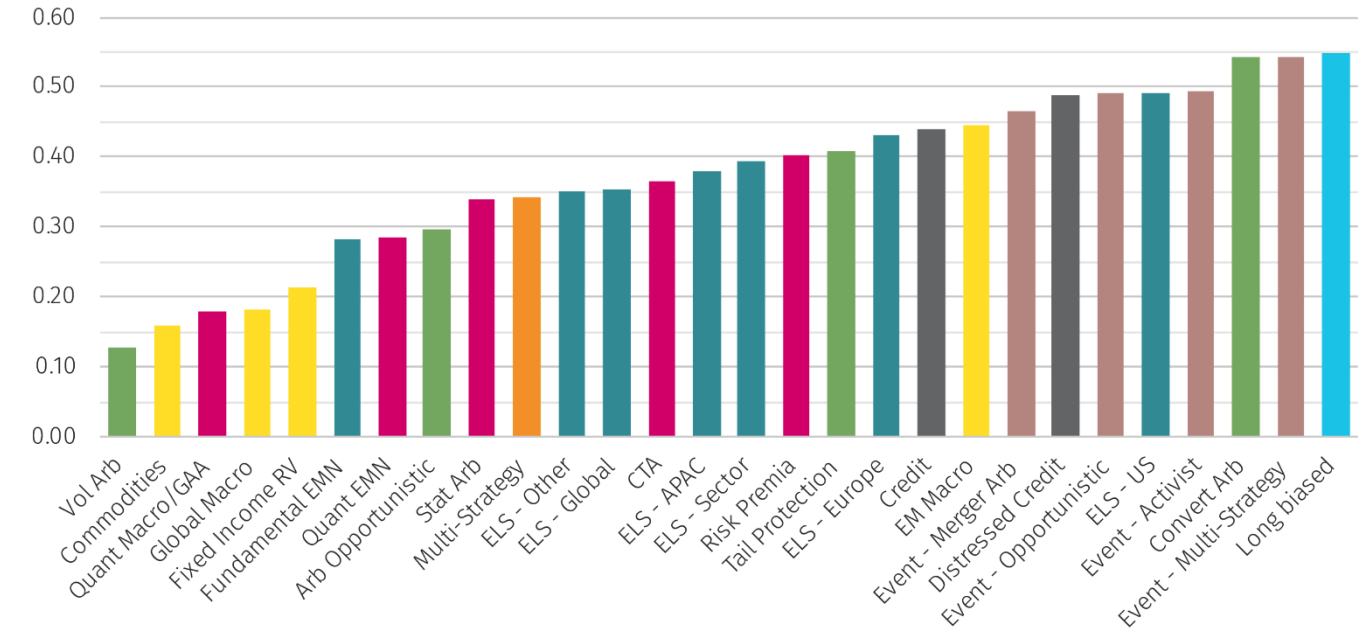
MASTER STRATEGY CORRELATION MATRIX (5 YR)

	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite
Arbitrage	1.00	0.57	0.39	0.47	0.37	0.55	0.59	0.28	0.47
Credit		1.00	0.78	0.85	0.83	0.84	0.80	0.43	0.89
Equity L/S			1.00	0.95	0.94	0.79	0.89	0.40	0.96
Event				1.00	0.94	0.82	0.85	0.41	0.96
Long biased					1.00	0.85	0.80	0.50	0.98
Macro						1.00	0.81	0.52	0.89
Multi-Strategy							1.00	0.44	0.88
Quant								1.00	0.56
HF Composite									1.00

MASTER STRATEGY CORRELATION MATRIX (1 YR)

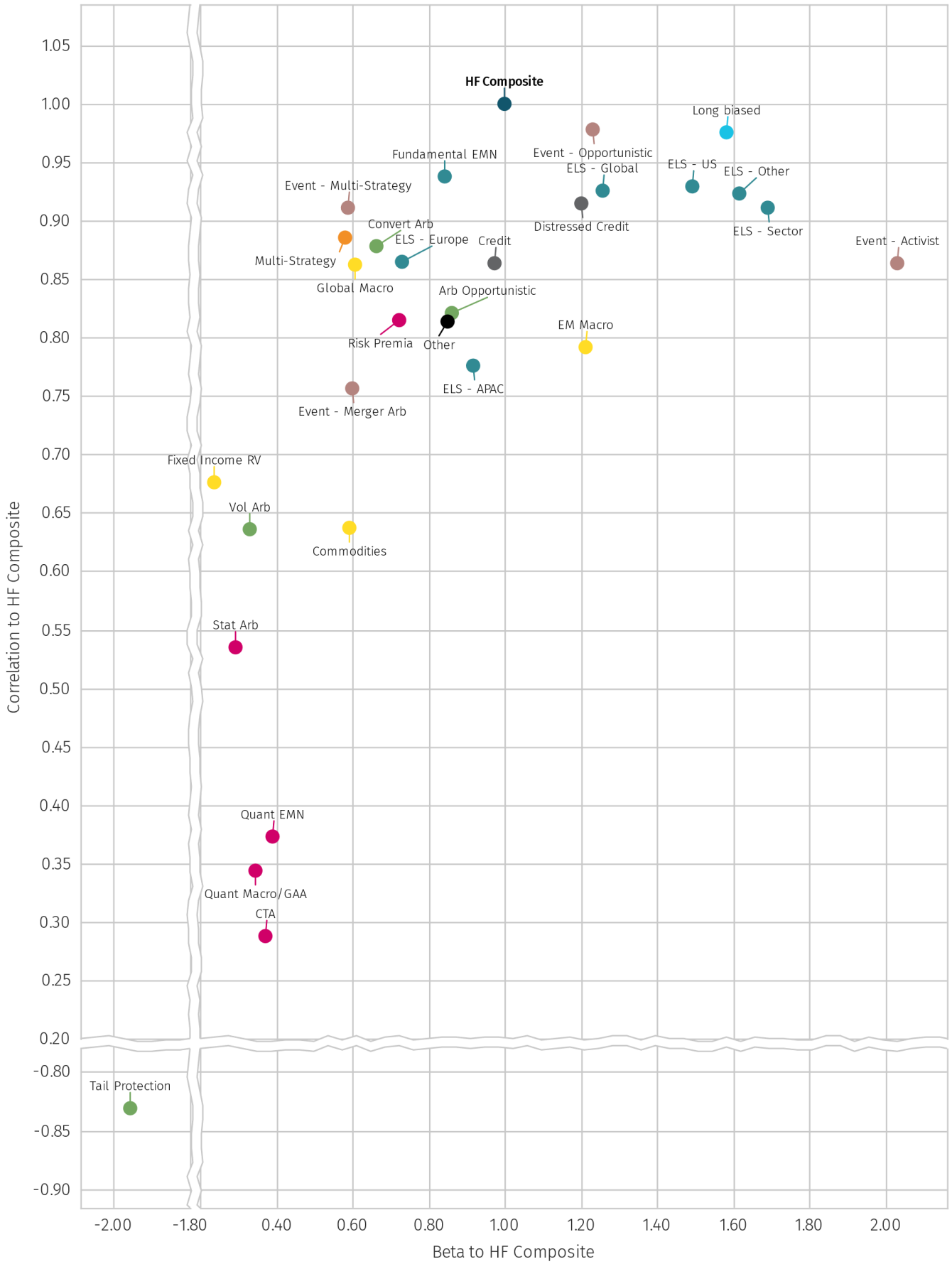
	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite
Arbitrage	1.00	0.87	0.78	0.81	0.77	0.85	0.89	0.72	0.83
Credit		1.00	0.90	0.92	0.90	0.95	0.95	0.74	0.94
Equity L/S			1.00	1.00	0.99	0.96	0.96	0.86	0.99
Event				1.00	0.99	0.96	0.95	0.84	0.99
Long biased					1.00	0.96	0.94	0.85	0.99
Macro						1.00	0.96	0.85	0.98
Multi-Strategy							1.00	0.85	0.97
Quant								1.00	0.88
HF Composite									1.00

AVERAGE INTRA-STRATEGY CORRELATION (5 YR)**



*HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index.
** Equally Weighted returns.
Source: Aurum Hedge Fund Data Engine.

SUB-STRATEGY CORRELATION AND BETA TO HF COMPOSITE* (5 YR)



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

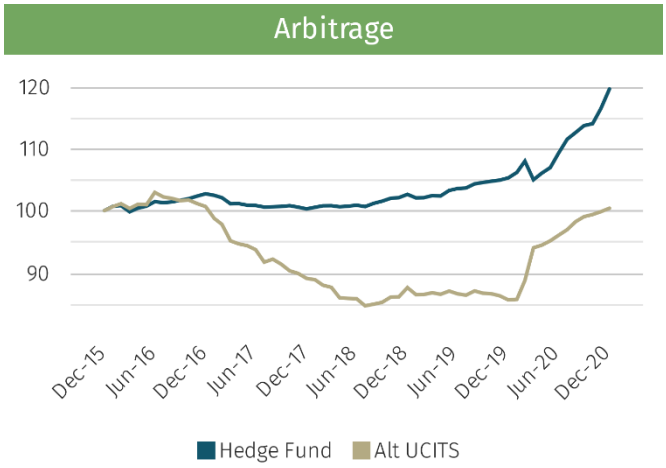
Hedge Funds vs Alt UCITS

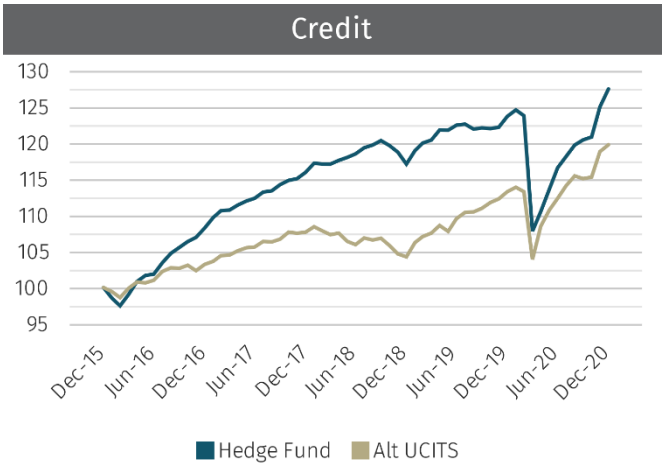
The table below presents returns of hedge funds relative to their cheaper alternative UCITS counterparts. As can be clearly seen, hedge funds have, on average, significantly outperformed their newer, cheaper cousins in 2020 and over a 5-year period. While a significant driver of interest in Alt UCITS has been the low fees and promise of comparable returns to hedge funds, the reality has been that overall, the results have been disappointing.

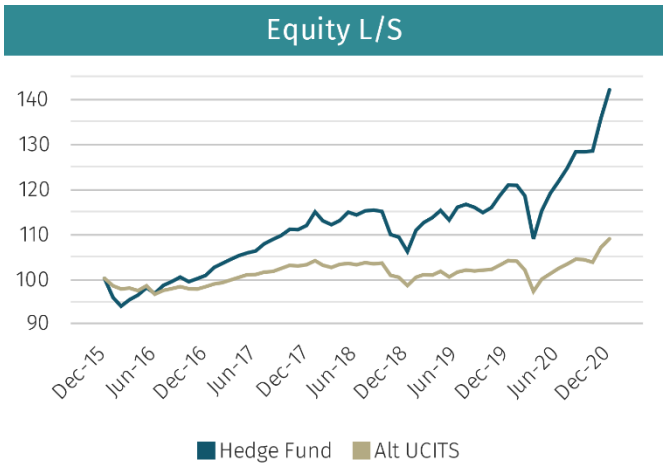
HEDGE FUNDS VS ALT UCITS RETURNS

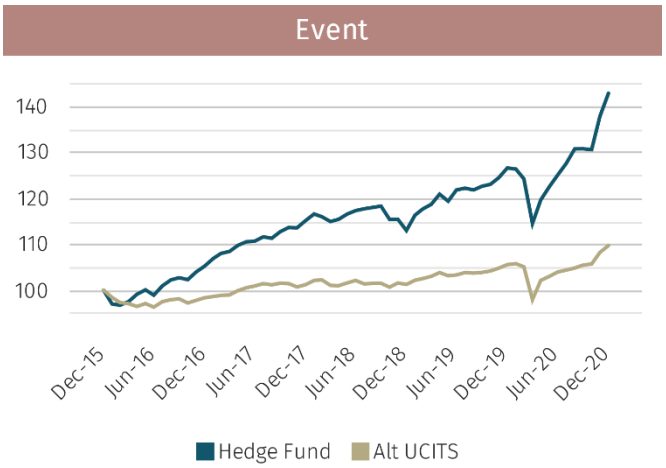
	2020 Returns		5Y Returns		5Y Vol		5Y Sharpe		AUM ($bn)		Fund Count	
	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS
Arbitrage	13.61%	17.24%	3.64%	0.08%	2.77%	4.42%	0.78	-0.29	48.0	4.0	114	15
Credit	3.07%	5.73%	4.97%	3.67%	6.87%	5.13%	0.53	0.45	372.6	31.4	501	35
Equity L/S	17.54%	4.64%	7.26%	1.70%	7.88%	4.18%	0.75	0.08	539.3	48.9	1,135	150
Event	12.85%	3.94%	7.39%	1.87%	6.41%	4.35%	0.92	0.11	239.5	14.5	204	29
Long biased	10.51%	6.56%	8.20%	4.21%	9.52%	4.91%	0.73	0.57	582.6	131.8	613	85
Macro	8.39%	-0.45%	4.56%	3.16%	4.54%	7.20%	0.69	0.27	308.6	39.9	362	63
Multi-Strategy	15.83%	7.86%	7.41%	3.69%	3.84%	4.11%	1.51	0.55	276.8	13.3	163	14
Quant	-5.35%	-8.09%	1.13%	-1.84%	4.33%	3.59%	-0.05	-0.90	396.9	19.7	509	84
HF Composite*	8.68%	4.19%	5.79%	2.76%	5.86%	4.37%	0.74	0.31	2860.7	308.3	3,794	490

HEDGE FUNDS VS ALT UCITS



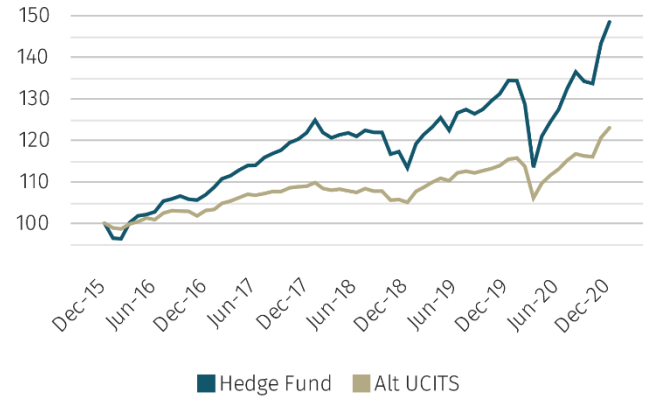




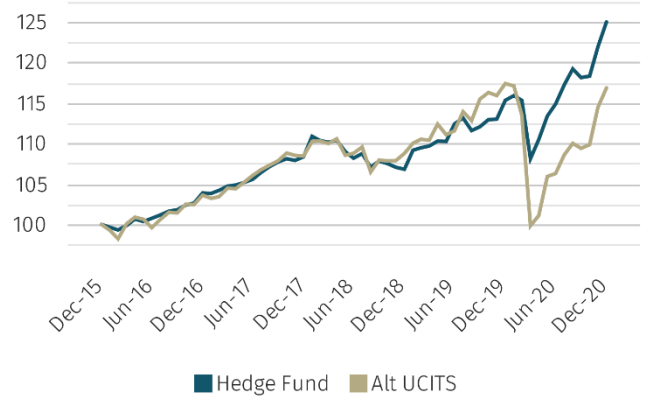


**HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index.*
Source: Aurum Hedge Fund Data Engine.

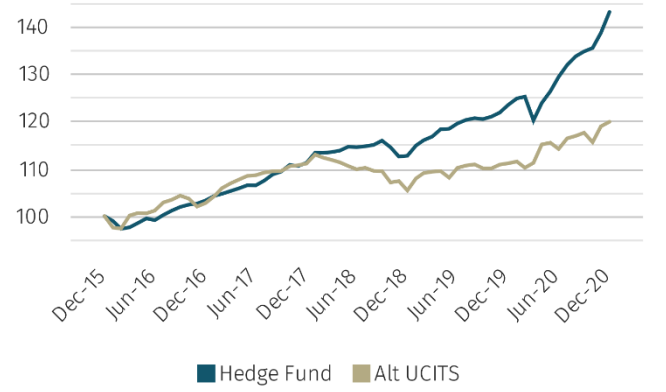
Long biased



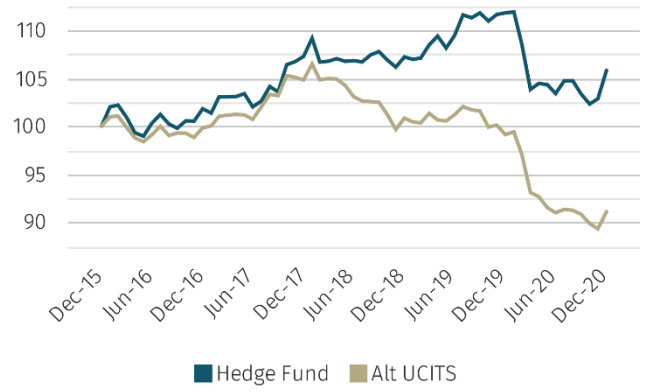
Macro



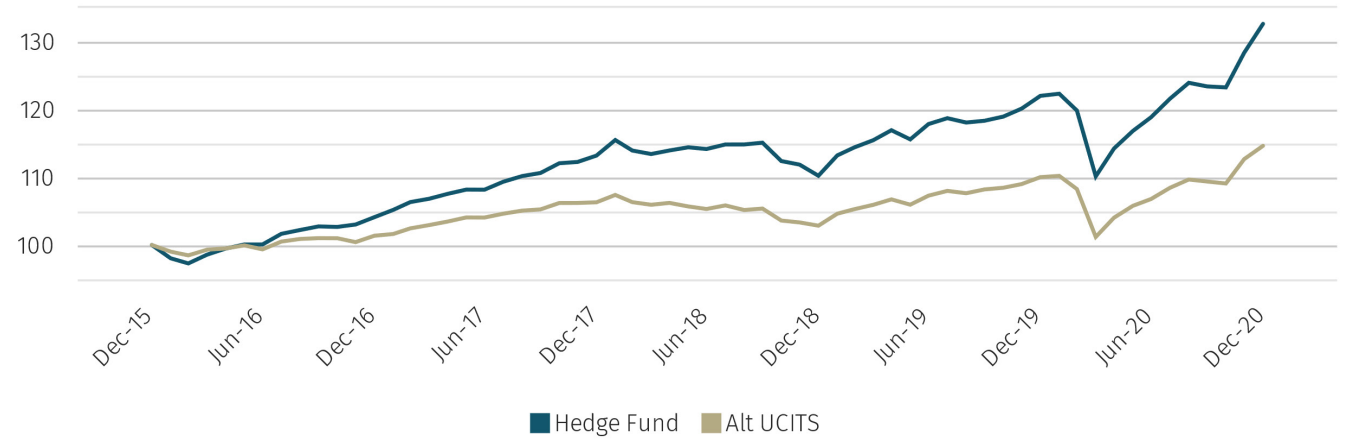
Multi-Strategy



Quant



HF Composite

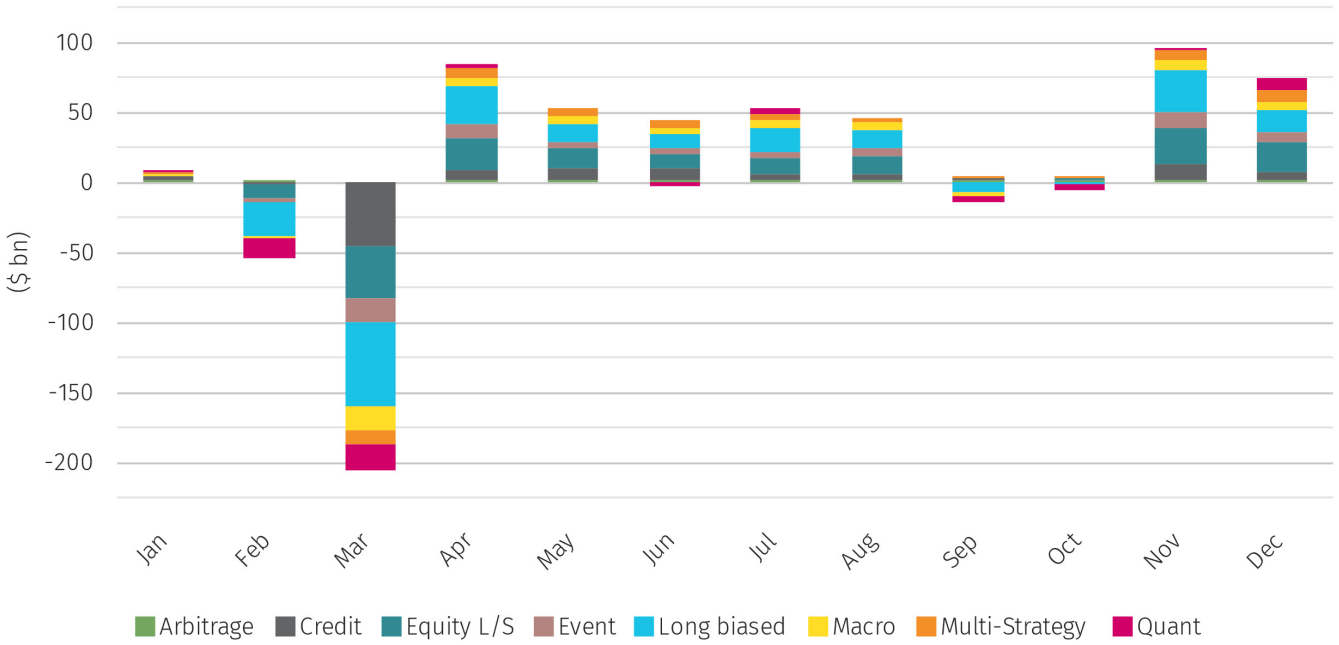


**HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index*
Source: Aurum Hedge Fund Data Engine.

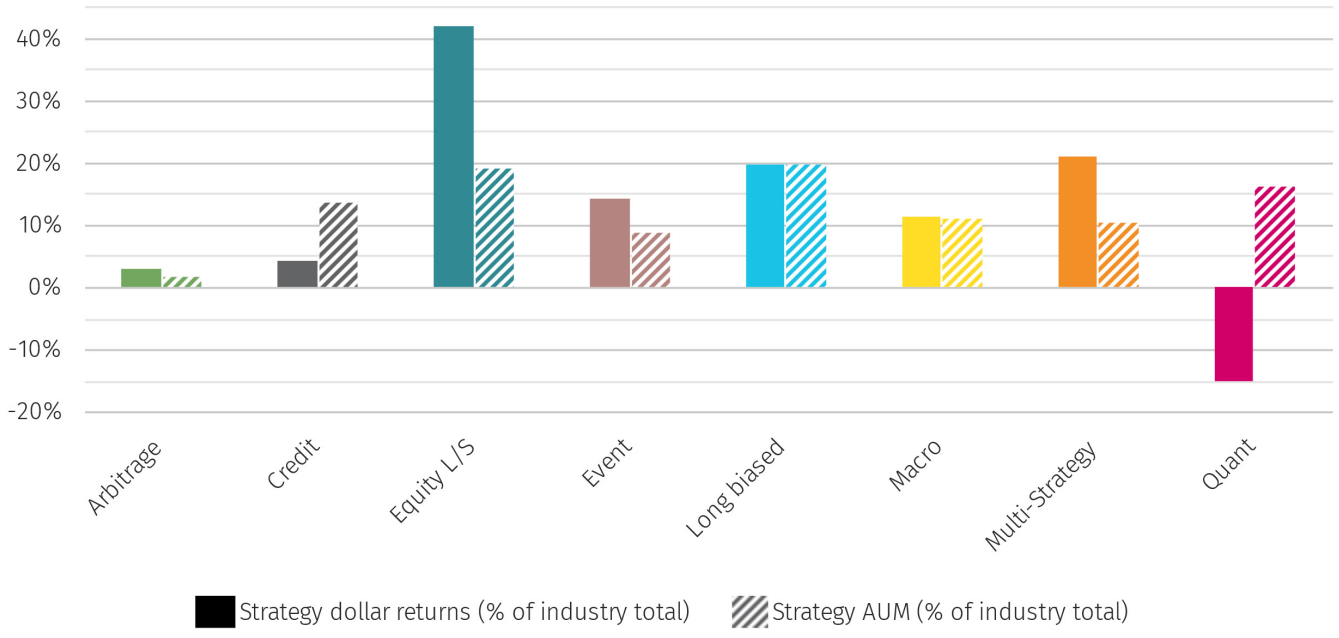
Dollar Extraction

This part of the report shows how much has been generated or lost by particular strategies and the hedge fund industry as a whole in absolute dollar terms derived solely from performance. The immediate striking observation is that due to March's negative performance, hedge funds cumulatively lost well over $200bn, of which more than half of the losses came from long biased and credit managers. Over $25bn of losses also came from the equity long/short space (which typically trades with net positive exposure and some beta). The other strategies were much smaller by comparison. Over the course of the year, however, equity long short can be credited with generating 45% of the net dollar industry performance, which was a significant outperformer relative to that strategy's relative size of the industry (just under 20% of hedge fund industry assets). Other significant outperformance came from the multi-strategy funds, with a number of the 'big hitters' posting very strong numbers. As a result, over 20% of the performance generated increase in hedge fund AUM came from strategies representing just 10% of the assets. The only strategy whose performance detracted from AUM was quant, accounting for about 15% of the industry assets, but whose losses reduced the total AUM in the industry by 15%.

AUM ACCRETION AND DETRACTION BY MASTER STRATEGY PERFORMANCE (1 YR)



AGGREGATE AUM GAIN VS RELATIVE AUM OF STRATEGY (1 YR)

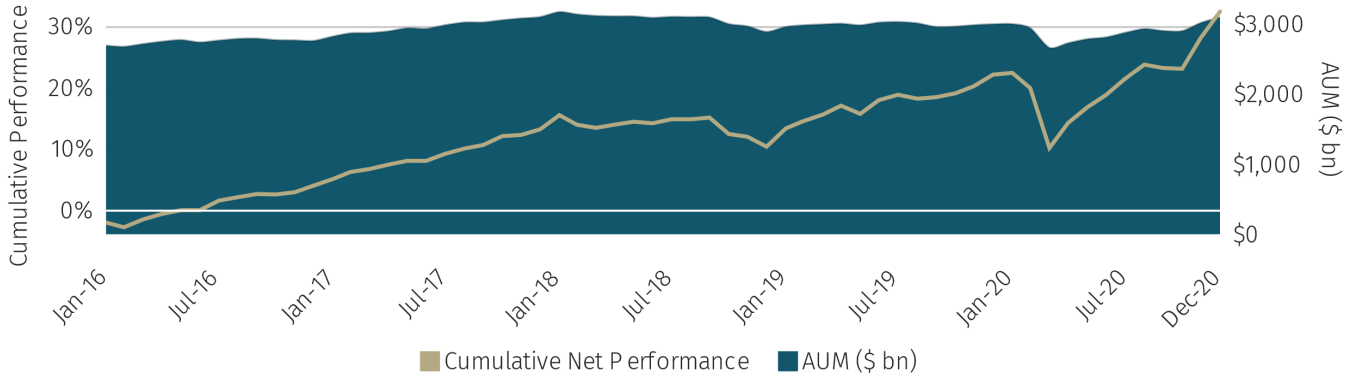


HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index
Source: Aurum Hedge Fund Data Engine.

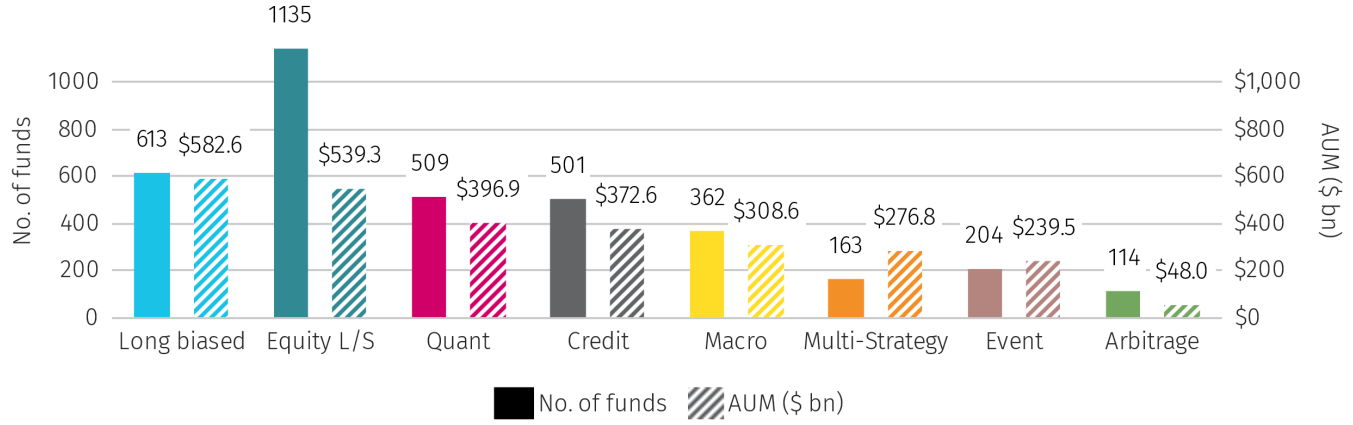
Industry assets, flows and fees

Equity long/short, long biased and quant hedge funds were the three largest strategies (by AUM) as at year end, also accounting for well over 2,000 individual hedge funds and just under half the assets in the hedge fund industry monitored by Aurum. In terms of year-on-year change, every strategy except long biased and quant has seen net asset growth. Quant strategies saw significant outflows, which when added to the fall in AUM through negative performance on the year, saw the category shrink by nearly $70bn. While long biased funds ended up making money for the year, the increase in AUM due to performance was more than offset by significant outflows of well over $30bn. In fact, the only strategy that saw net positive investor flows on the year were the multi-strategy funds, adding nearly $20bn of net inflows. As can be seen on page 15, one can also see how concentrated the multi-strategy space is by the top few funds. Time will tell if this trend will continue, as we are aware that many of the largest multi-strategy hedge funds are either closed to new investment and returning profits to investors, or changing to more onerous liquidity terms. We are aware of a new generation of smaller multi-strategy funds looking to grow, however it has been hard to challenge the large incumbent platforms, so we do not expect the picture to change quickly.

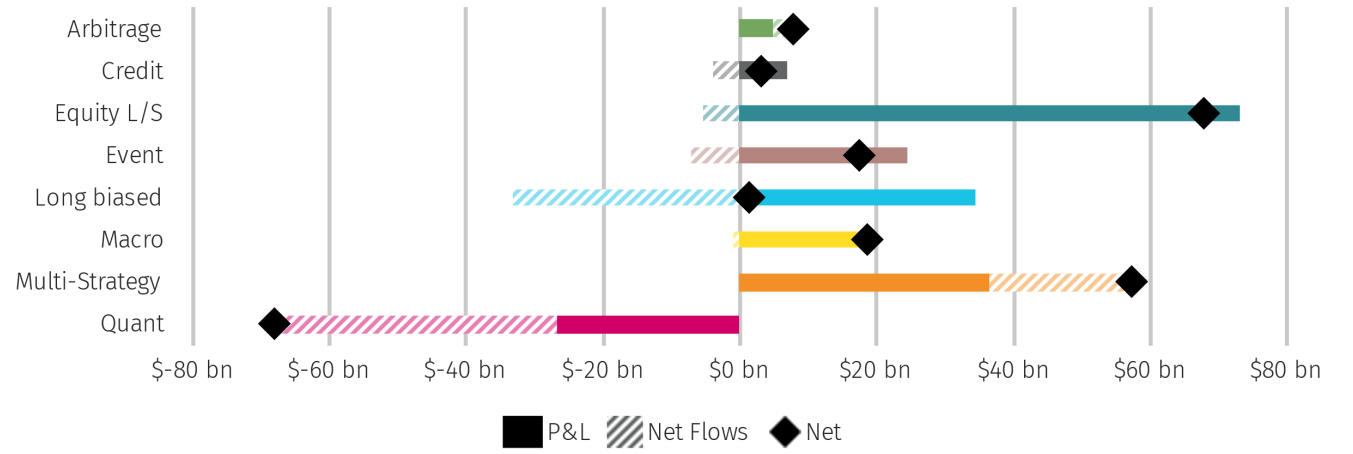
HF COMPOSITE ASSETS (5 YR)*



NUMBER OF FUNDS AND AUM BY MASTER-STRATEGY

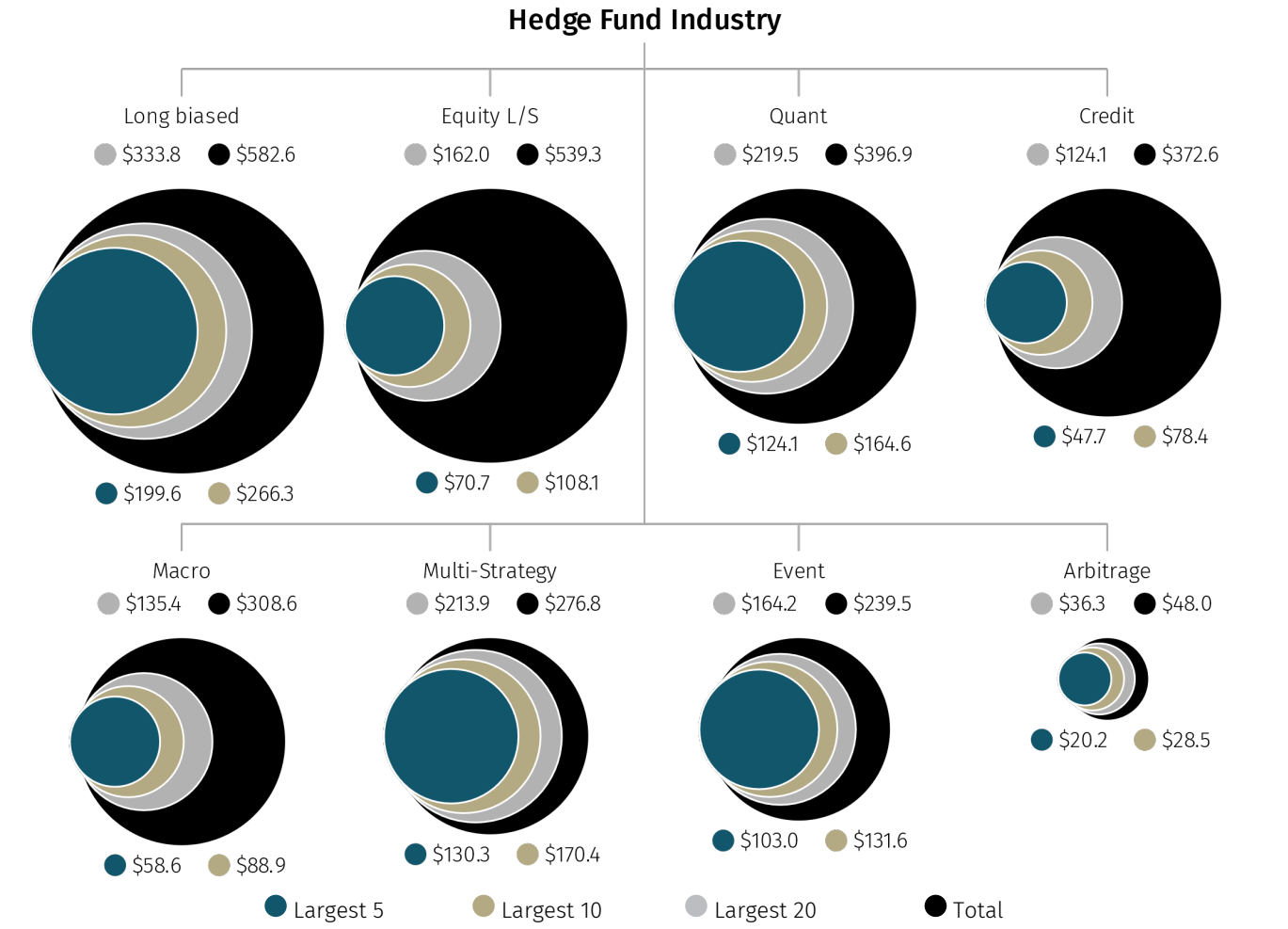


12-MONTH CHANGE IN AUM BY MASTER-STRATEGY

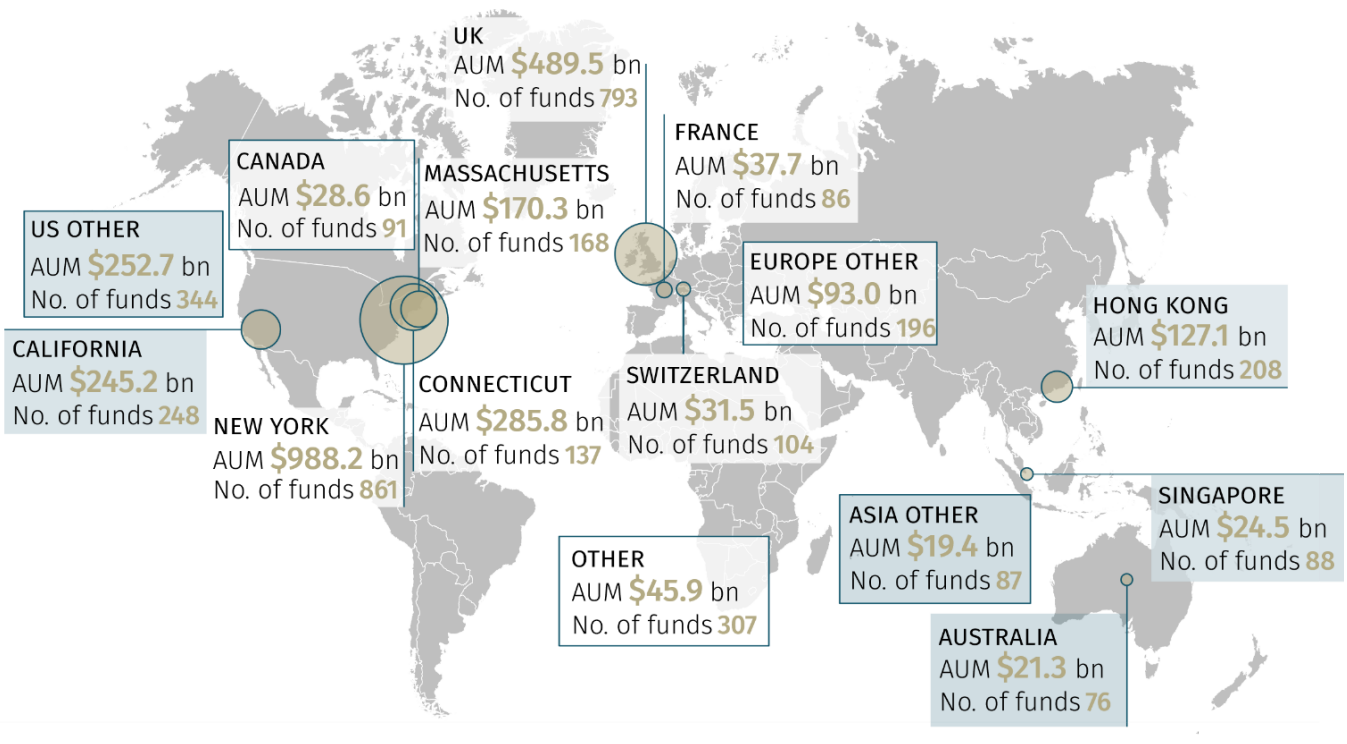


*HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index.
Source: Aurum Hedge Fund Data Engine.

MASTER-STRATEGY FUND CONCENTRATION ($ BN)



ASSETS UNDER MANAGEMENT BY LOCATION*



** Includes funds which are active but have not reported to Aurum within the last 12 months*
Source: Aurum Hedge Fund Data Engine

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**	**112**	**1.51%**	**20.37%**
Convertible Bond	42	Monthly	100	1.28%	18.00%
Opportunistic	60	Quarterly	147	1.35%	21.21%
Tail Protection	30	Monthly	69	1.75%	17.95%
Volatility Arbitrage	30	Monthly	95	1.71%	21.05%
Credit	**60**	**Quarterly**	**156**	**1.27%**	**17.71%**
Credit	60	Quarterly	124	1.14%	16.40%
Distressed	90	Quarterly	224	1.56%	19.76%
Equity L/S	**30**	**Monthly**	**126**	**1.46%**	**18.79%**
Asia Pacific Long / Short	30	Monthly	136	1.62%	19.43%
European Long / Short	14	Fortnightly	83	1.34%	19.31%
Fundamental Equity MN	30	Monthly	100	1.51%	18.13%
Global Long/Short	45	Monthly	128	1.47%	18.78%
Other L/S	30	Monthly	91	1.28%	15.43%
Sector	45	Quarterly	138	1.58%	18.58%
US Long / Short	45	Quarterly	147	1.30%	18.91%
Event	**60**	**Quarterly**	**179**	**1.60%**	**19.34%**
Activist	90	Quarterly	144	1.54%	18.95%
Merger Arbitrage	30	Monthly	63	1.22%	16.60%
Multi-strategy	60	Quarterly	226	1.74%	19.91%
Opportunistic	60	Quarterly	161	1.55%	19.56%
Long biased	**30**	**Monthly**	**62**	**0.86%**	**10.93%**
Macro	**30**	**Monthly**	**92**	**1.43%**	**17.71%**
Commodities	30	Monthly	56	1.30%	17.08%
FIRV	30	Monthly	117	1.52%	20.33%
Global Macro	30	Monthly	82	1.46%	16.93%
Macro Emerging Markets	30	Monthly	95	1.32%	17.17%
Multi-Strategy	**45**	**Monthly**	**170**	**1.83%[2]**	**20.47%**
Quant	**5**	**Monthly**	**39**	**1.51%**	**17.19%**
CTA	3	Weekly	27	1.26%	16.69%
Quant Macro/GAA	10	Monthly	34	1.97%	19.64%
Quantitative Equity MN	26	Monthly	44	1.30%	13.63%
Risk Premia	2	Daily	26	0.75%	9.33%
Statistical Arbitrage	30	Monthly	82	2.18%	23.52%

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:
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:
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:
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:
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:
Typically focusing upon investments in higher yielding (but still performing) non-investment grade securities, primarily corporate - and sometimes sovereign - debt. The strategy is typically expressed with a net long bias. More relative value-oriented credit funds take a more balanced long/short approach (although still typically have a net long bias). Relative to longs, the short positions may be outright, related by sector, and/or within the same capital structures. 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. Returns are generated from a blend of coupon income and capital appreciation due to spread tightening (or widening on shorts).

Distressed:
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.

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:
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:
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:
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:
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:
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:
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:
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:
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:
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:
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:
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.

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:
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:
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 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 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:
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:
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:
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:
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:
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.

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