

Hedge Fund Industry Deep Dive

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In summary

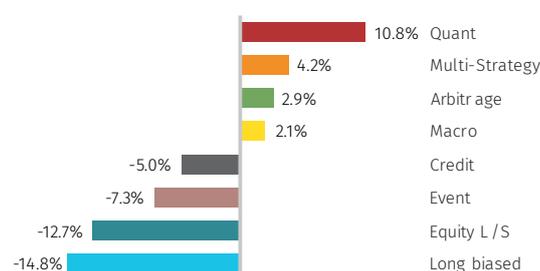
- H1 2022 has been an extraordinarily challenging time period, not only for financial markets, but also for the global geopolitical landscape.
- The hedge fund industry has struggled, down 4.0% YTD.
- Industry-wide hedge fund assets shrunk in H1 2022, primarily driven by negative performance.
- Quant is the best performing master strategy year to date, up 10.8%.
- Strategies that typically exhibit a higher beta to equities have struggled; the worst performing master strategy year to date is long-biased (-14.8%),
- Despite dispersion being lower than during the height of 2020-21, hedge fund industry dispersion remains high relative to the last ten years.
- Strategy correlation has also exhibited some significant changes over the last 12 months, as some areas such as arbitrage, macro, quant and multi-strategy have shown considerably more resilience to recent market pressures compared to others.

*HF Composite = Aurum Hedge Fund Data Engine Asset Weighted Composite Index. All figures and charts use asset weighted returns unless otherwise stated. All Hedge Fund 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/>

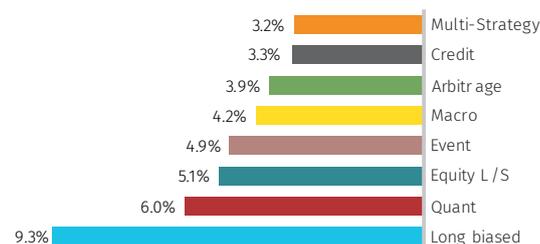
HF COMPOSITE* NET RETURN (YTD)



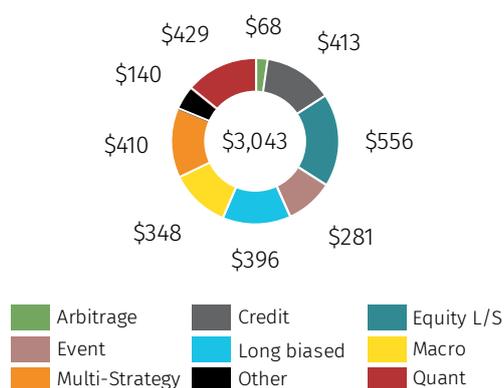
MASTER STRATEGY NET RETURN (YTD)



STANDARD DEVIATION (YTD)



AUM (\$BN)



AUM CHANGE \$BN (YTD)



H1 2022 overview

Coming into 2022, there was hope of a return to 'normality' following the low points caused by the COVID-19 pandemic. However, in January there was a reminder by the WHO that the pandemic was certainly not over, warning that the spread of Omicron would likely result in further mutations. At the back end of 2021, inflation was already at 40-year highs and the Fed changed their narrative, dropping the word 'transitory' in their communications. Central bank quantitative easing, for the most part, has come to an end, moving to a world of quantitative tightening and interest rate rises in an attempt to combat the highest inflation witnessed in decades. Decades of loose monetary policies throughout the world have now started to reverse.

The first half of the year has been an extraordinarily challenging time period, not only for financial markets, but also for the global geopolitical landscape

The first half of the year has been an extraordinarily challenging time period, not only for financial markets, but also for the global geopolitical landscape. On the 24th February Russian forces invaded Ukraine, resulting in a devastating and ongoing human cost, condemnation by the West, and the imposition of heavy sanctions. The invasion of Ukraine has also led to significant volatility in global financial markets and exacerbated global geopolitical tensions. Relations between the US and China continue to deteriorate. Nicholas Burns, the US's Ambassador to China described relations as in the worst state since Nixon's historic visit to re-establish diplomatic ties with China in 1972. As part of the fallout from the Russian invasion, the West has looked to reduce its reliance on the supply of Russian energy. In a recent investor call, Robert Kapito (President of Blackrock) indicated that these actions are "effectively removing 7.5% from global supply" at what is already a precarious time. Constraints on energy supply, due to a lack of historical investment, has combined with the post-pandemic global demand surge to devastating effect. Commodity prices have surged, particularly across the energy complex. This has been the principal driver of global inflation, with the war in Ukraine exacerbating supply pressures.

Global policymakers are facing significant challenges. On the one hand, inflation has been more persistent than originally anticipated. Cost pressures have impacted corporate profits through wage inflation, financing, and energy inflation. However, attempts by central banks to dampen demand, bringing to an end decades of accommodative policy, have significantly increased fears that a 'soft-landing' is doubtful, with a recession a more likely result. Whilst contending with decisions on quantitative tightening and the pace of interest rate rises, there remain additional material factors outside central banks' control. As well as the ongoing war in Ukraine and associated severe sanctions on Russia, China's growth remains challenged by COVID-19-related lockdowns, food prices are further pressured by droughts, and the ECB is beginning its own tightening cycle. There is not as much room for manoeuvre as we have seen in previous cycles. Europe's situation is exacerbated by member states attempting to reduce their reliance on Russian imports.

While challenges remain, there are some brighter spots and reasons to be more positive. US consumer demand appears to remain relatively strong, as they hold a lot of cash. There is strong payroll growth in the US, counteracting arguments of a near-term recession. In China, it appears that the lockdowns are also not causing as much of a knock-on effect on the supply chain as originally feared. Finally, while financial conditions are undoubtedly tightening, they remain broadly accommodative (from a historical perspective).

Markets summary

It has been a torrid time for risk assets in the first half of the year. Global equities*** and Global bonds** have fallen 21.3% and 14.3%, while over the 12-month period, they have returned -18.3% and -16.1% respectively. The moves in fixed income in particular have been historic in magnitude with major bond indices reporting a fall of over 17.5% stretching back from January 2021 to mid-May 2022, the biggest drop since data began in 1990. The positive correlation between equities and bonds has had ramifications for the classic 60/40¹ portfolio, as it suffered its worst first-half decline since 1988 with a Bloomberg article stating the Bloomberg US 60/40 index down 17%². By stark contrast, the commodity space has stood out as an attractive hedge against rising inflation. Constraints on supply, combined with the post-pandemic boost in demand, has led to multiple commodities seeing their prices surge in the first half of the year, in particular energy exceeding 50% as well as softs such as corn and wheat, up over 10%.

In fixed income, yield curves flattened and bond yields rose in the first half of the year, amid exacerbating inflation concerns. It is worth taking a moment to reflect on the sheer scale of the bond losses. Bloomberg sums it up well in an article on 1 July "a year-to-date loss that eclipses even the biggest annual losses since the early 1970s. A broad index measuring the performance of Treasuries has fallen over 9% in 2022. Since 1973, the bond market has only posted five

¹ Investments are split 60% in stocks and 40% in bonds.

² Source: Bloomberg.com "Why now may be the wrong time to write off 60/40" 5th July 2022

annual declines, with the most recent being a drop in the region of 2% last year.” Credit markets have sold-off significantly, the US Corporate bonds and US dollar high yield (“HY”) are both down around 14%, and emerging market bonds down just below 20%. In a recent call Jose Aguilar (Head of European HY at Blackrock) put valuations into perspective, saying that the 8% yield available in high yield compares favourably to the peak of the COVID-19 crisis in 2020, when spreads got out as far as 9% for a couple of weeks. “These levels of yield are more than pricing in a recession.”

Elsewhere in markets it should come as no surprise that the US dollar, as a safe haven currency, is up significantly, close to double digit gains on the year.

Hedge fund industry performance review

Asset growth

Hedge fund assets covered by the Aurum Hedge Fund Data Engine (\$3.0 trillion as at 30th June) shrunk in the first half of 2022 primarily driven by negative performance (net P&L of -\$101.7bn) as well as net outflows of \$41.9bn. Equity l/s funds saw the most significant reduction in dollar terms, while from a flows perspective there were significant net outflows from long-biased, credit, macro and quant strategies. Multi-strategy was – once again – the biggest beneficiary, not only growing from positive performance, but also from significant inflows³ combining to well over +\$30bn. None of the other master strategies saw net investor inflows during the period.

Headline performance

The hedge fund industry has struggled in H1 2022, down 4.0% YTD after having finished up 7.32% in 2021. The rolling 12-month performance for the hedge fund industry in aggregate sits at -2.42%, with the losses in 2022 more than offsetting the modest returns of the second half of 2021. These losses have been primarily driven by the historically challenging market conditions for equities and bonds described above.

As seen in the following chart, dispersion between the top and bottom decile performing hedge funds has risen in H1 2022. As markets have become more volatile (although still nowhere near the extremes caused by COVID-19 and the resulting fallout in 2020-21), dispersion between top and bottom decile hedge funds is just shy of 40% and is very high relative to the last ten years.

NET RETURN OF MASTER STRATEGIES

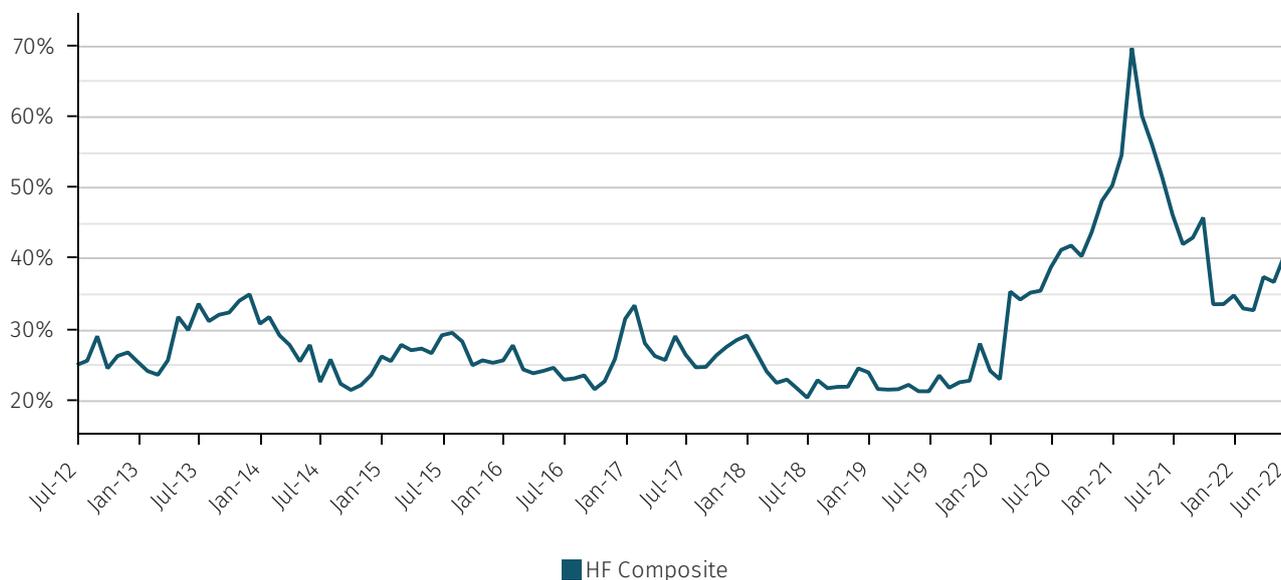
Net Performance [†]	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	YTD	12M
Quant	1.11%	0.48%	0.08%	1.17%	-1.21%	2.66%	0.93%	0.70%	3.93%	3.73%	-0.38%	1.47%	10.76%	15.54%
Multi-Strategy	0.35%	0.97%	2.24%	0.18%	0.54%	1.17%	0.89%	0.38%	0.65%	1.94%	-0.88%	1.15%	4.19%	9.96%
Arbitrage	-0.24%	-0.09%	0.85%	0.45%	0.56%	-0.12%	1.15%	0.72%	0.40%	1.55%	-1.65%	0.70%	2.87%	4.32%
Macro	-0.80%	0.60%	-0.01%	-1.61%	-1.05%	1.00%	0.62%	-0.62%	1.88%	1.30%	0.35%	-1.42%	2.09%	0.18%
Credit	0.20%	0.51%	0.55%	0.38%	-0.29%	0.57%	-0.30%	-0.53%	0.06%	-0.61%	-1.06%	-2.64%	-5.00%	-3.17%
Event	-0.53%	1.27%	0.64%	1.22%	-0.97%	1.32%	-1.71%	-0.37%	0.70%	-1.18%	-1.40%	-3.52%	-7.31%	-4.57%
Equity L/S	-0.64%	1.28%	-0.90%	2.34%	-2.83%	-0.11%	-4.72%	-1.23%	-0.62%	-3.16%	-1.80%	-1.80%	-12.66%	-13.49%
Long biased	0.40%	1.16%	-2.10%	1.72%	-1.60%	2.09%	-3.24%	-0.66%	0.27%	-4.33%	-0.87%	-6.83%	-14.83%	-13.47%
HF Composite*	-0.01%	0.86%	-0.07%	1.02%	-1.18%	1.02%	-1.48%	-0.40%	0.85%	-0.48%	-1.00%	-1.53%	-4.00%	-2.42%
Bonds**	1.31%	-0.50%	-1.95%	-0.26%	-0.48%	-0.23%	-2.28%	-1.30%	-2.90%	-5.61%	0.22%	-3.28%	-14.31%	-16.13%
Equities***	0.32%	2.35%	-4.08%	4.65%	-2.90%	3.79%	-5.32%	-2.39%	1.70%	-8.10%	-0.20%	-8.74%	-21.33%	-18.29%

There were some distinct ‘winners’ and ‘losers’ from a strategy perspective; the best performing were quant (+10.8%), multi-strategy (+4.2%), arbitrage (+2.9%) and macro (2.1%). Unsurprisingly – given the poor performance of risk-assets across equities and fixed income, strategies that typically exhibit a higher beta to those areas have struggled; long-biased performed the worst (-14.8%), followed by equity l/s (-12.7%), event (-7.3%) and credit (-5.0%).

³ As can be seen on [page 23](#) ‘Change in AUM by Master Strategy’,

Quant's recent resurgence has considerably narrowed the gap between the master strategies. Indeed, over this timeframe, there is now less than a 1.2% CAR differential between the bottom performing master strategy, credit (CAR: 3.3%) and equity l/s (CAR: 4.4%) with quant, macro, and long-biased strategies sandwiched in between. Arbitrage strategies have compounded at just under 4.8% and – along with multi-strategy funds – are the only hedge fund strategies in aggregate to have delivered a Sharpe ratio above 1 in the last five years. As covered below, the standout performer has been multi-strategy, up every year in the last five, including 2022 YTD delivering a CAR of 9.3% and a Sharpe ratio of 1.9.

10th – 90th PERCENTILE 12M ROLLING PERFORMANCE SPREAD*



Bonds and equities have sold off every month in H1 2022, with the exception of March and May. The poorest performing hedge fund master strategies have demonstrated a pattern of correlated returns to bonds and equities. Long-biased, credit and event were down every month apart from March, mirroring the pattern in equity markets, while equity l/s did not manage a single up month in the first half of the year. On the flip side, quant strategies were strong across the board, with all the underlying sub-strategies positive in H1. The resurgence of CTAs in particular have been the main quant story (covered further below). They have been able to capitalise upon the establishment of sustained trends across multiple asset classes and persistently higher realised volatility levels.

The poorest performing hedge fund master strategies have demonstrated a pattern of correlated returns to bonds and equities

Multi-strategy funds have continued their consistent run of strong performance, up every year going back to 2008. More recently, the strategy has been up every single month in the last 12 months, with the exception of May 2022. Multi-strategy funds have consistently exhibited a lower beta to traditional risk assets; this year they have been able to capitalise on opportunities in relative value areas such as statistical arbitrage, low-net or market-neutral equity and fixed-income trading. In addition to this, a number of multi-strategy funds have allocations to more directional macro strategies, commodities has been a very strong area for these allocations. As highlighted above, commodities is an area in which inflation has manifested itself to the greatest degree. Aurum are aware of multiple large multi-strategy funds that have generated significant positive performance, particularly from the moves in oil and natural gas.

As indicated above, it has been a torrid time for equity l/s, not surprising given the significant net long bias of funds following the strategy⁴. In January the strategy lost 4.7% as equity markets sold off and there was a significant rotation from growth to value. This rotation was, in part, due to the Fed announcing a faster pace of tapering. Yields rose significantly and companies that needed to secure funding sold off aggressively. This included unprofitable tech, the consumer sector, healthcare and expensive growth names, which are more sensitive to a move higher in rates and are

⁴ [Aurum's equity l/s deep dive](#)

heavily trafficked by the equity l/s space. On the flip side, cheap/undervalued stocks, particularly in areas like energy and financials outperformed.

The event strategy was also an underperformer. It was the best performing master strategy in 2021, driven primarily by the activist sub-strategy, which has tended to run quite a high beta to equities. With the reversal in risk assets, it has been interesting to see the same sub-strategy dragging event down (event – activist is the worst performing across all the hedge fund sub-strategies, discussed further below). It has also been challenging for opportunistic and merger arbitrage funds, with a number of large deals delayed or falling through.

Arbitrage has been up every month so far in 2022, apart from May, posting its strongest returns in the most challenged months for bonds and equities (April and June). This is not surprising when one digs under the surface and sees that tail protection and volatility arbitrage strategies have performed exceptionally during this period of elevated volatility and asset class dispersion.

Performance

Sub-strategy performance

Quant

As indicated above, quant strategies were the best performing YTD. The performance builds upon the positive returns in 2021 and represents quite a turnaround relative to the end of 2020 (when four of the five quant sub-strategies were the worst performing across all sub-strategies in the hedge fund space tracked by Aurum). By contrast, so far in 2022, all but one of the underlying sub-strategies were positive for the period, led by Quant Macro (up 17.4% ranking first across all the hedge fund sub-strategies). The CTA space (which was the second best performing across all hedge fund sub-strategies [2/28], up 16.3%) built upon its positive showing in 2021, capitalising on sustained positive trends in commodities and the US dollar, as well as the sustained sell-off in equities and bonds. CTAs – in particularly trend-followers – are often touted for their ‘protective’ qualities during periods of sustained volatility. Although CTAs failed to provide that protection during the COVID-19 crisis in 2020, they have delivered in the face of challenging markets so far in 2021. The turnaround for the quant macro/GAA sub-strategy is impressive after below hedge fund median performance in 2021 and poor performance in 2020. Stat arb, an area that has been relatively consistent (after having made 9.3% in 2021 and 9.8% in 2020) posted another solid period of returns (up 7.1%) with just the single down month in May (-0.1%). The strategy, which typically runs a neutral exposure to common risk factors, has benefited from higher levels of equity market volatility and price dispersion. Quant EMN (+2.2%) and risk premia (the only negative quant sub-strategy YTD: -5.6%) were the bottom performing of the quant sub-strategies, although quant EMN is still above the median (10/28), while risk premia falls just below the median performing sub strategy (17/28).

Arbitrage

The positive performance of the arbitrage strategy was driven predominantly by tail protection (+14.8%) and volatility arbitrage (+5.3%). It is not surprising that tail protection strategies were the one of the best performing (3/28) of all hedge fund sub-strategies given the spiking global market volatility. The VIX Index has risen from a low at the start of the year, reaching a peak on 7th March and oscillating between elevated levels to June⁵. While these recent spikes in volatility are a fraction of the levels reached in the peak of the COVID-19 crisis, they remain elevated when viewed in the context of the last 20 years. The ‘volatility of volatility’ has also been elevated and of course extends beyond equities into other asset classes. Large and sustained moves in asset classes combined with wide oscillations in volatility levels have provided a rich opportunity set for tail protection and long-biased volatility funds.

Event

Decomposing the event strategy’s poor returns, we can see – as mentioned above – that the activist sub-strategy was the poorest performing of any of the hedge fund sub-strategies covered by our database. Historically it has exhibited a high beta to equities and in 2021 was the best performing sub-strategy (up 20.3%), but YTD the figure is down 17.0%, moving broadly in line with equity markets. The opportunistic space (down 12.1% for the period) experienced negative performance while merger arbitrage (down 2.4% for the period) was only positive in February and March. The sell-offs and higher market volatility have led to spreads widening generally across both mergers and SPACs. The recent steep declines in equity markets combined with higher volatility have led to speculation among investors that some private equity groups may be looking to renegotiate deals lower. In this environment, corporates are looking less likely to make significant bets, with larger deals being driven by private equity bids for companies that have seen their share price fall dramatically in recent months. The best performing sub-strategy within the event space was event – multi-strategy, which ended the six months flat, (0.0%).

Macro

The strongest macro performance has been predominantly driven by directional opportunities in the commodity space. Commodity specialists were the 4th best performing sub-strategy of all (4/28) and have been able to capitalise on some of the extreme moves in the space, particularly in the energy complex, where a number of funds have captured some of the moves in oil and natural gas. Some funds have also done well on softs, such as corn and wheat. The global macro sub-strategy, (typically comprising managers that have a wide remit to invest across asset classes) is also one of the better performers up 5.0% YTD (7/28) with a significant proportion of that P&L driven by short-rates and long US dollar positioning and to a lesser extent, long commodities and short equity. Relative value rates trading has still been profitable with fixed income RV up 2.9% although the bigger opportunities have been in the large directional moves. EM Macro (down 8.5%) has a greater beta to global risk assets and suffered as they sold off.

Credit

The credit master strategy is down YTD driven predominantly by losses in the relative value credit sub-strategy (down 5.3%). Distressed credit was also negative (-3.8%). As indicated in the markets review section of the report, as an asset class, credit has sold off significantly across both IG and HY. However, with spreads at current levels there is a potentially more attractive opportunity set to invest on the long side in particular. If tighter monetary policy pushes global economies towards a recession, the expectation is for default rates to rise and potentially create more fertile conditions for distressed credit investing. At this time, many funds are opting to keep their powder dry in anticipation.

⁵ Source: Google Finance

Equity long/short

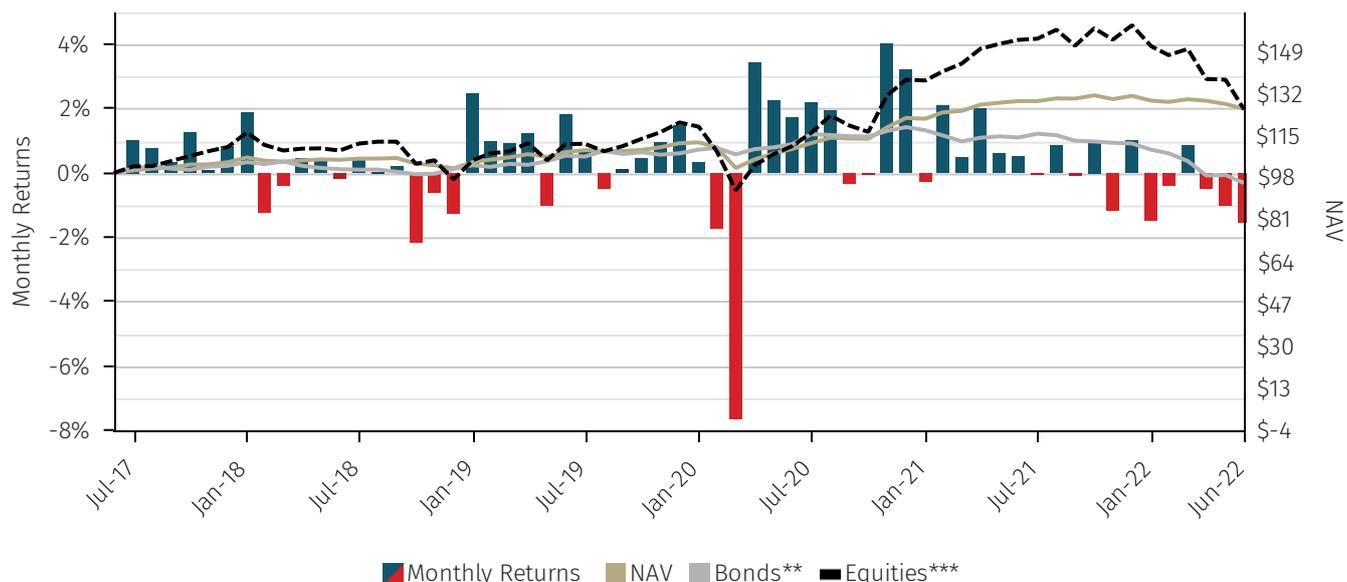
Buoyant markets for risk-assets since the end of 2018 have acted as a tailwind for higher beta areas such as credit, long-biased, equities and event over the same time period, but the reversal in markets in 2022 has acted as a sharp reminder of the perils of carrying too much exposure to beta-heavy strategies in your portfolio. Equity l/s sub-strategies dominate the bottom quartile across all hedge fund sub-strategies. ELS – Sector (-17.0%) were the worst performing followed by, ELS – US (-14.6%), ELS – Global (-13.1%), ELS – Other (-10.4%), ELS – APAC (-9.0%), and ELS – Europe (-6.9%). The best performing equity l/s sub-strategy was fundamental EMN, but this too had negative returns (-1.60%). As indicated above (and with reference to the [equity l/s deep dive](#) research piece written last month), there is a traditional focus within the equity l/s space to focus on certain sectors, in particular: technology, consumer discretionary and healthcare. These sectors historically have exhibited healthy levels of dispersion. This year we have seen significantly elevated levels of volatility in these sectors accompanied by heavy losses. The technology sector in particular has been hit particularly hard. By contrast, sectors such as consumer staples, materials, utilities, and energy outperformed in the recent challenging conditions.

Managers in the equity l/s space have also typically had a bias towards growth over value over the last few years. As discussed above, there has been some significant factor rotations in H1, hurting those with a heavy weighting/factor tilt. It should come as no surprise that the most ‘risk constrained’ of the sub-strategies (fundamental EMN), have exhibited the most resilience to the market sell-off and factor volatility.

NET RETURN OF SUB-STRATEGIES

Net Performance [†]	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	YTD	12M
Quant Macro/GAA	-0.67%	0.52%	1.71%	0.37%	-1.35%	2.80%	2.73%	0.43%	3.98%	6.23%	-0.63%	3.70%	17.44%	21.38%
CTA	0.83%	0.14%	-0.06%	2.65%	-3.20%	0.90%	0.72%	2.32%	6.60%	4.53%	-0.18%	1.47%	16.31%	17.67%
Tail Protection	-0.81%	-1.60%	0.64%	-0.49%	1.83%	-3.12%	2.68%	2.38%	0.96%	5.86%	-3.30%	5.67%	14.81%	10.71%
Commodities	0.36%	1.11%	1.95%	2.50%	-1.59%	2.73%	0.84%	2.00%	5.08%	1.84%	1.54%	-4.18%	7.10%	14.81%
Stat Arb	0.97%	0.55%	1.59%	0.05%	1.13%	1.56%	1.31%	0.29%	2.27%	1.84%	-0.14%	1.31%	7.06%	13.47%
Vol Arb	-0.34%	-0.06%	0.36%	-0.44%	0.77%	0.46%	2.05%	0.91%	0.60%	1.58%	-0.23%	0.33%	5.34%	6.12%
Global Macro	-1.31%	0.33%	0.14%	-2.15%	-1.23%	0.58%	0.84%	-0.03%	2.45%	1.96%	0.40%	-0.74%	4.95%	1.16%
Multi-Strategy	0.35%	0.97%	2.24%	0.18%	0.54%	1.17%	0.89%	0.38%	0.65%	1.94%	-0.88%	1.15%	4.19%	9.96%
Fixed Income RV	-0.34%	0.14%	0.44%	-2.19%	0.24%	1.07%	1.17%	0.09%	0.79%	0.87%	0.21%	-0.29%	2.87%	2.18%
Quant EMN	4.15%	0.80%	-2.30%	1.05%	0.26%	6.16%	-1.26%	-0.96%	2.49%	1.87%	-1.31%	1.44%	2.21%	12.75%
Arb Opportunistic	-0.19%	0.20%	1.39%	1.33%	0.15%	0.31%	0.49%	0.44%	0.46%	0.85%	-1.81%	-0.11%	0.28%	3.51%
Event - Multi-Strategy	-0.66%	1.18%	1.30%	0.73%	0.26%	0.89%	0.61%	0.49%	0.91%	0.28%	-0.69%	-1.56%	0.00%	3.74%
Fundamental EMN	0.83%	1.38%	0.38%	0.51%	-1.14%	1.09%	-0.31%	-0.44%	0.10%	-0.88%	0.18%	-0.25%	-1.59%	1.43%
Event - Merger Arb	-1.99%	0.72%	0.81%	0.76%	-0.03%	0.55%	-0.21%	0.94%	0.31%	-0.76%	-1.57%	-1.09%	-2.40%	-1.63%
Distressed Credit	-0.22%	0.74%	0.79%	0.76%	-0.73%	0.67%	-0.27%	0.02%	1.35%	-0.49%	-1.53%	-2.87%	-3.78%	-1.83%
Credit	0.33%	0.44%	0.47%	0.26%	-0.15%	0.54%	-0.31%	-0.69%	-0.32%	-0.65%	-0.92%	-2.55%	-5.34%	-3.54%
Risk Premia	2.24%	0.75%	-2.01%	0.64%	0.17%	3.34%	-0.39%	-0.14%	0.03%	-1.05%	1.04%	-5.08%	-5.57%	-0.71%
Convert Arb	0.17%	0.29%	1.00%	1.23%	-0.08%	0.34%	-0.44%	-0.40%	-0.40%	-0.75%	-2.69%	-1.61%	-6.15%	-3.35%
ELS - Europe	1.58%	1.12%	-1.00%	1.87%	-1.42%	0.76%	-3.37%	-0.59%	0.23%	-0.54%	-1.02%	-1.78%	-6.89%	-4.19%
EM Macro	-0.16%	1.73%	-1.42%	-0.88%	-1.78%	1.37%	-0.61%	-4.01%	0.16%	-0.47%	-0.29%	-3.48%	-8.47%	-9.56%
ELS - APAC	-3.67%	1.01%	0.55%	1.78%	-0.64%	-1.57%	-3.50%	-1.50%	-3.99%	-1.31%	-0.10%	1.11%	-9.02%	-11.38%
ELS - Other	-3.37%	-0.32%	-1.98%	0.46%	-2.75%	1.51%	0.31%	-3.01%	-1.62%	-1.44%	0.57%	-5.56%	-10.41%	-16.12%
Event - Opportunistic	-0.39%	1.88%	0.54%	1.17%	-2.65%	-0.34%	-3.23%	-0.78%	-0.80%	-1.85%	-1.37%	-4.65%	-12.09%	-11.96%
ELS - Global	0.05%	0.34%	0.34%	2.95%	-2.98%	-0.69%	-4.96%	-1.51%	-0.88%	-2.60%	-1.36%	-2.50%	-13.09%	-13.16%
ELS - US	0.05%	0.68%	-2.01%	2.38%	-2.81%	1.61%	-4.27%	-1.12%	-0.69%	-4.25%	-1.29%	-3.88%	-14.60%	-14.77%
Long biased	0.40%	1.16%	-2.10%	1.72%	-1.60%	2.09%	-3.24%	-0.66%	0.27%	-4.33%	-0.87%	-6.83%	-14.83%	-13.47%
ELS - Sector	-1.60%	2.66%	-1.61%	2.71%	-4.28%	-1.09%	-7.03%	-1.29%	0.37%	-5.22%	-3.93%	-0.99%	-16.96%	-19.74%
Event - Activist	0.13%	0.83%	-0.54%	2.38%	-1.37%	4.67%	-4.60%	-2.11%	2.45%	-3.40%	-2.92%	-7.51%	-17.01%	-11.91%
HF Composite*	-0.01%	0.86%	-0.07%	1.02%	-1.18%	1.02%	-1.48%	-0.40%	0.85%	-0.48%	-1.00%	-1.53%	-4.00%	-2.42%
Bonds**	1.31%	-0.50%	-1.95%	-0.26%	-0.48%	-0.23%	-2.28%	-1.30%	-2.90%	-5.61%	0.22%	-3.28%	-14.31%	-16.13%
Equities***	0.32%	2.35%	-4.08%	4.65%	-2.90%	3.79%	-5.32%	-2.39%	1.70%	-8.10%	-0.20%	-8.74%	-21.33%	-18.29%

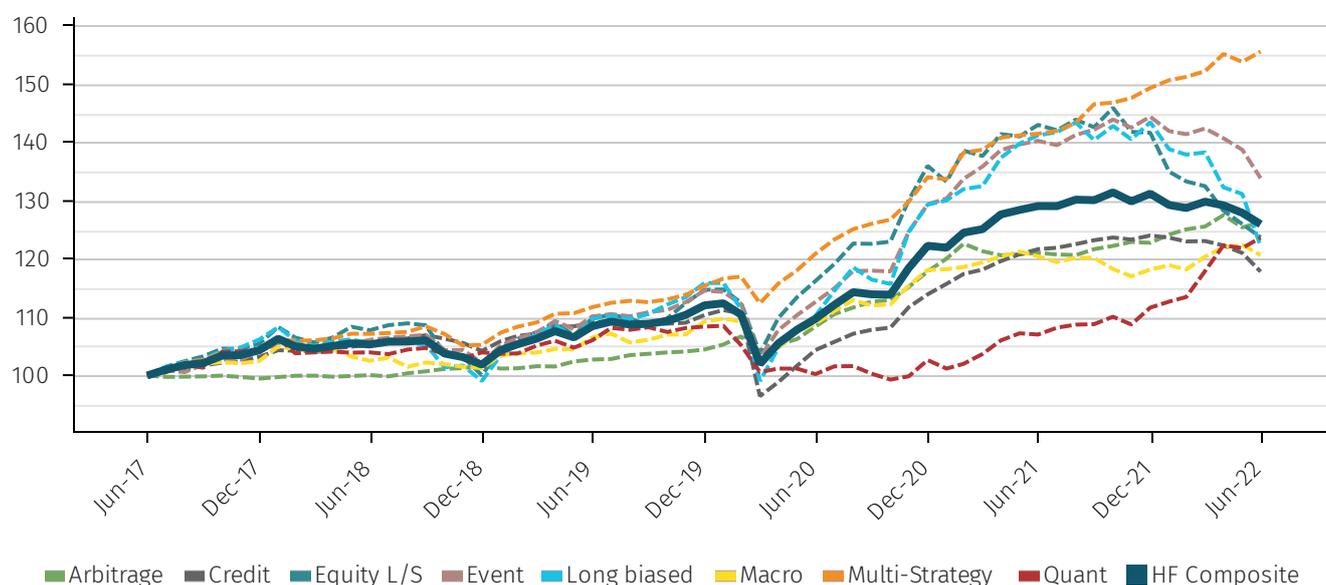
HEDGE FUND COMPOSITE* NET MONTHLY RETURN (5 YR)



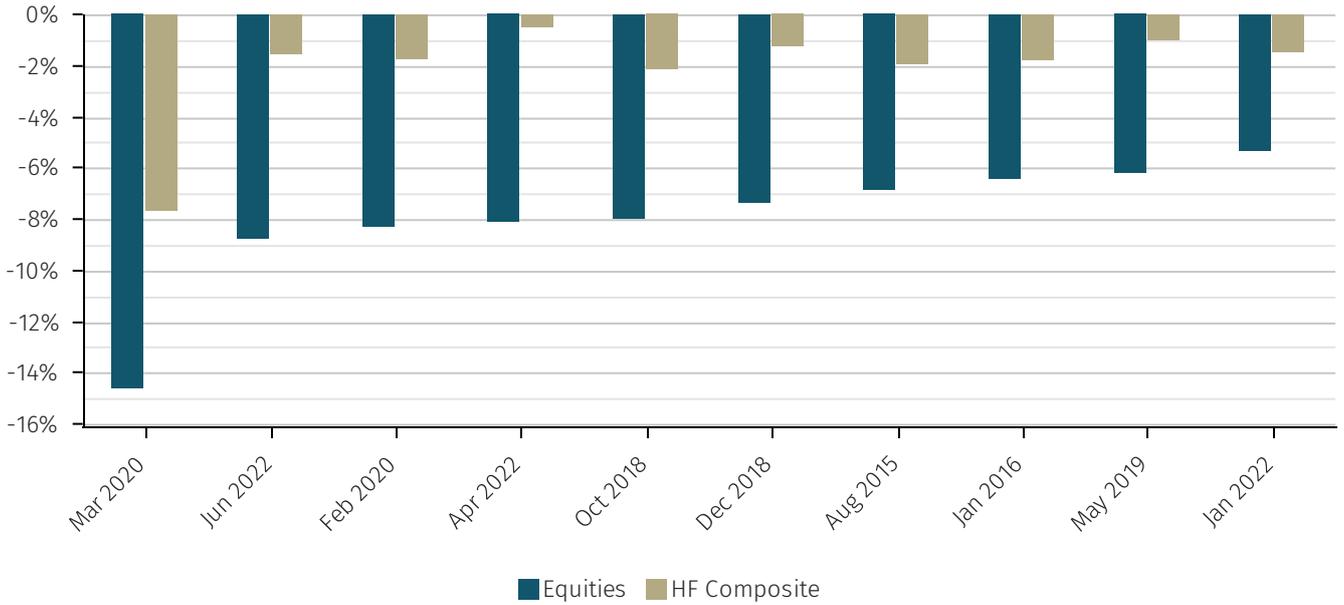
NET RETURN OF MASTER STRATEGIES (5 YR)

Annual Perf	2022	2021	2020	2019	2018	5Yr CAR	5Yr Vol	5Yr Sharpe
Arbitrage	2.87%	4.15%	12.84%	2.70%	2.26%	4.78%	2.94%	1.15
Credit	-5.00%	8.87%	3.22%	5.91%	0.98%	3.34%	6.86%	0.32
Equity L/S	-12.66%	4.18%	18.54%	14.66%	-5.14%	4.35%	8.61%	0.38
Event	-7.31%	11.61%	12.93%	12.13%	-1.88%	6.01%	6.86%	0.69
Long biased	-14.83%	10.94%	11.62%	16.97%	-6.70%	4.09%	9.93%	0.32
Macro	2.09%	0.05%	8.13%	7.90%	-1.21%	3.83%	4.75%	0.54
Multi-Strategy	4.19%	11.42%	16.16%	9.62%	0.74%	9.25%	4.02%	1.90
Quant	10.76%	8.77%	-5.30%	4.26%	-0.49%	4.34%	5.03%	0.61
HF Composite*	-4.00%	7.32%	9.13%	9.99%	-2.38%	4.73%	5.73%	0.60
Bonds**	-14.31%	-5.59%	9.84%	6.19%	-1.20%	-0.83%	5.44%	-0.37
Equities***	-21.33%	16.02%	14.34%	23.65%	-11.84%	4.68%	16.52%	0.28

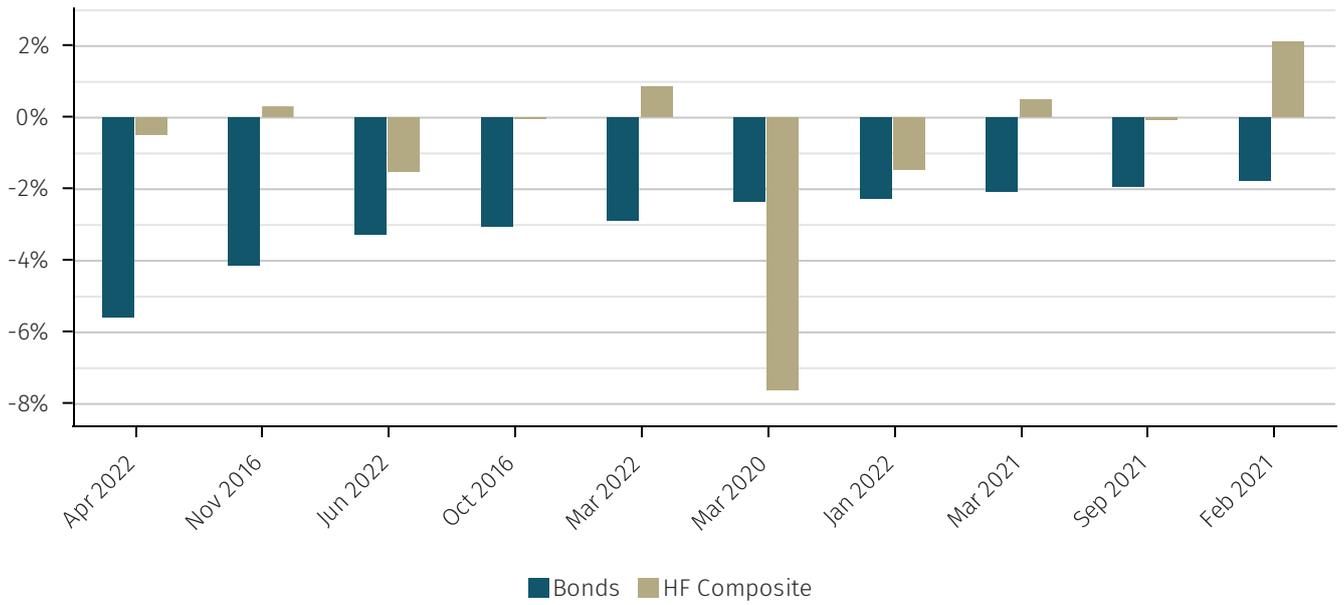
MASTER STRATEGY AND HEDGE FUND COMPOSITE* CUMULATIVE RETURN (5 YR)



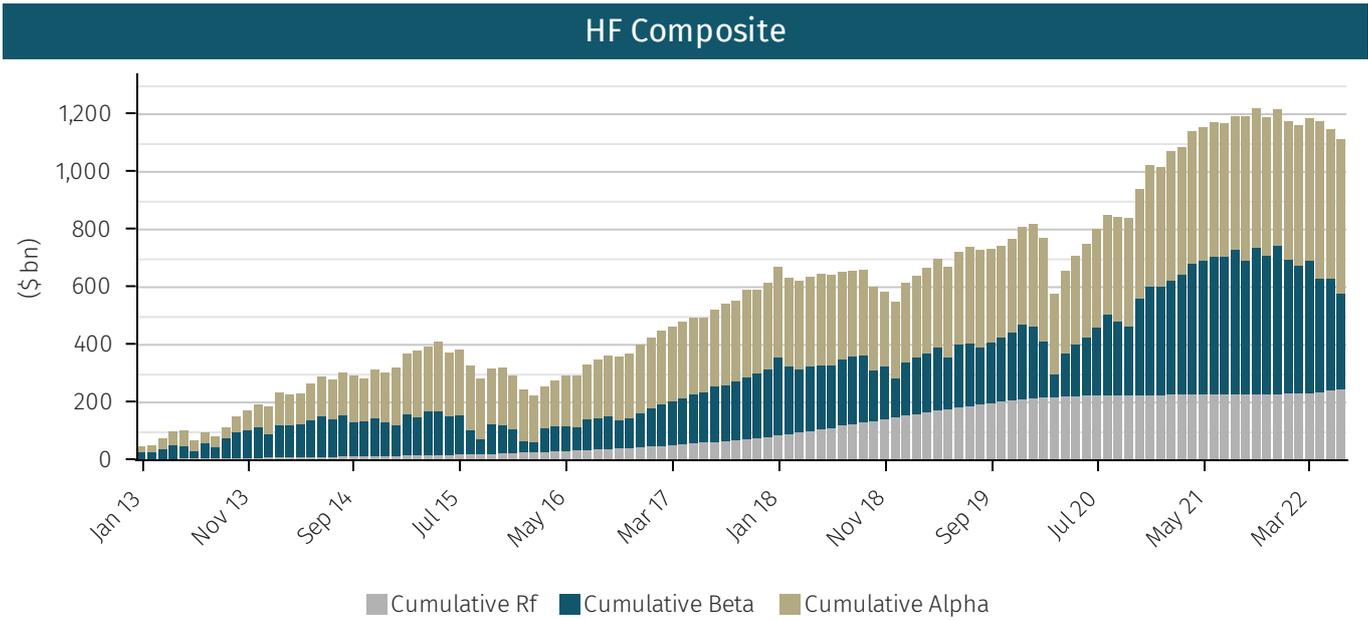
PERFORMANCE OF HEDGE FUND COMPOSITE* DURING WORST 10 MONTHS FOR EQUITIES* (10 YR)**



PERFORMANCE OF HEDGE FUND COMPOSITE* DURING WORST 10 MONTHS FOR BONDS (10 YR)**



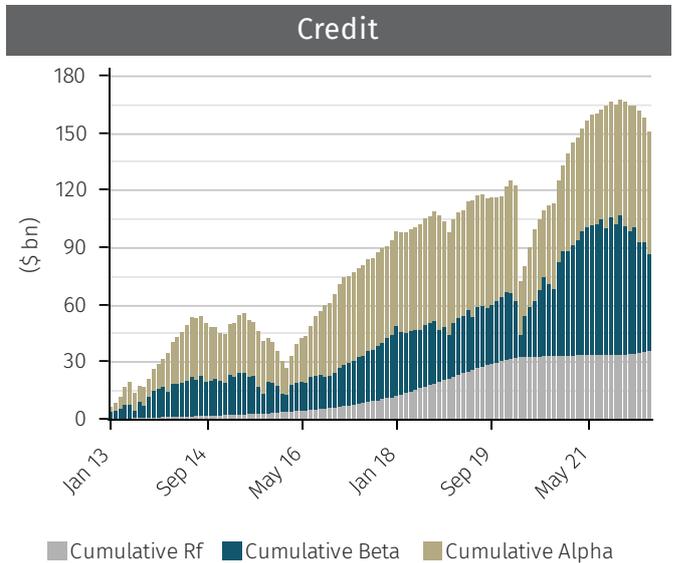
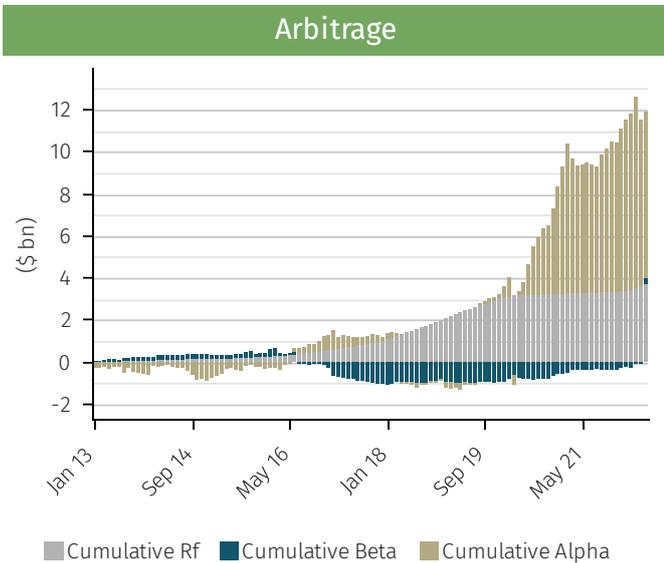
DECOMPOSING DOLLAR PERFORMANCE INTO ALPHA, BETA AND RISK FREE (RF) COMPONENTS



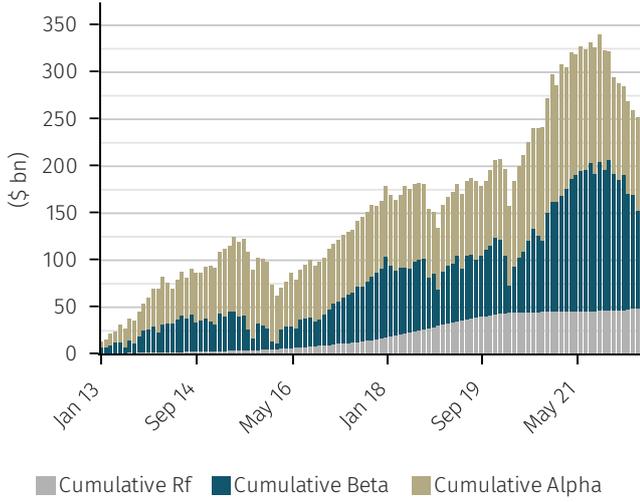
These charts decompose the Hedge Fund Composite dollar returns into Beta, Alpha and Risk free (“Rf”) components, as follows: $\text{Alpha} = \text{Actual return} - \text{Rf} - \text{Beta} * (\text{Market return} - \text{Rf})$.

Where Rf is the Risk free rate as defined by a rolling 3m USD Libor, 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 24m 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.

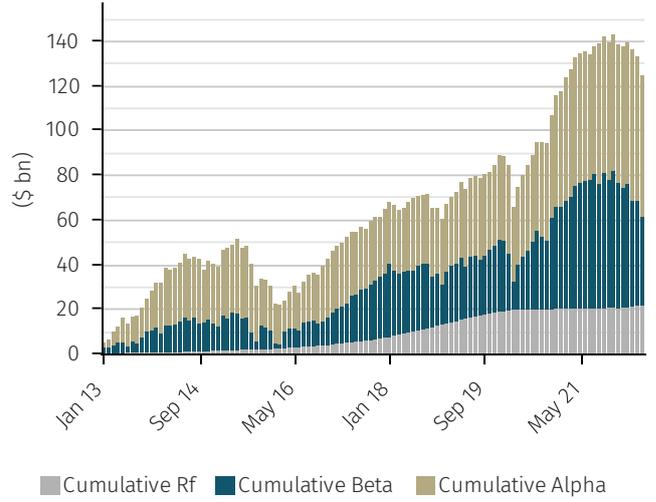
Note, Betas can be negative in certain cases, creating negative dollar attributions. These are offset by corresponding positive Alpha contributions.



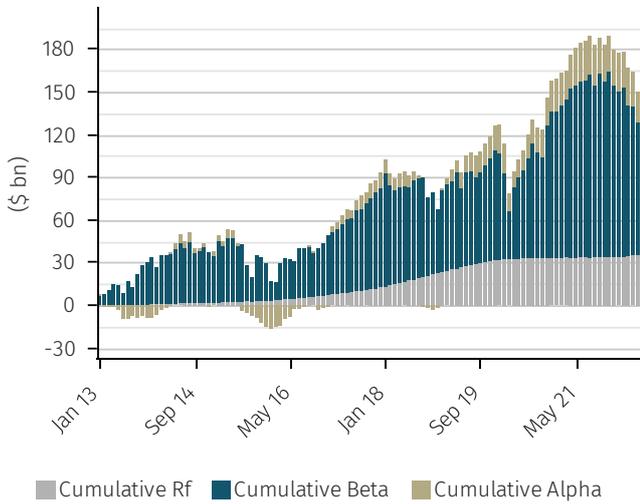
Equity L/S



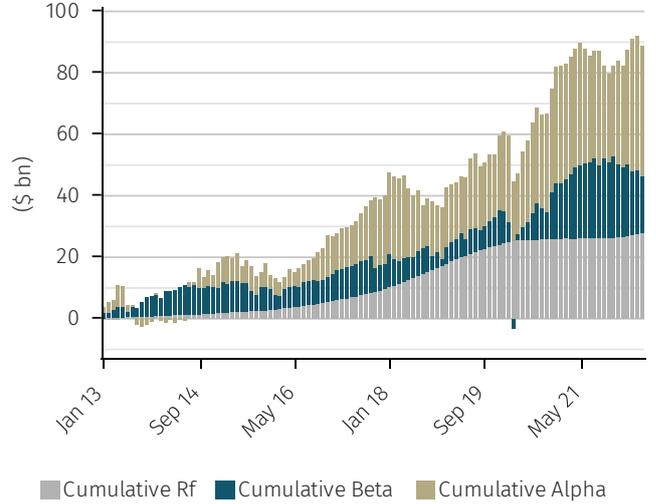
Event



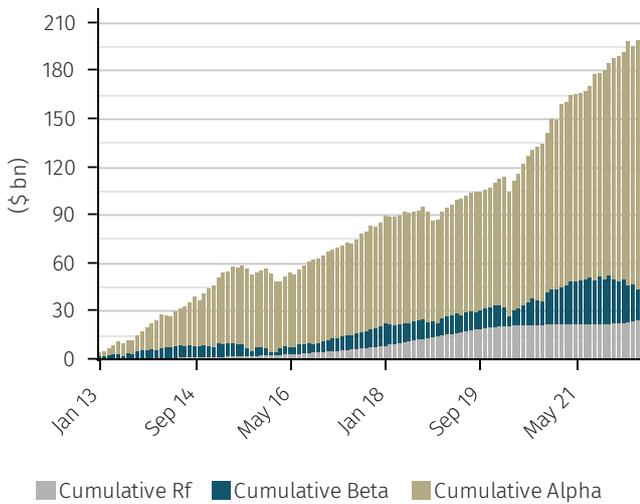
Long biased



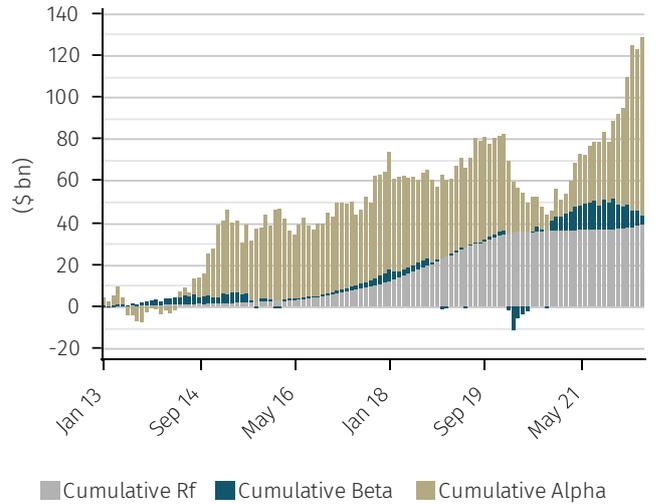
Macro



Multi-Strategy



Quant



Performance dispersion and correlation

Overall industry dispersion is significantly lower than it was through the 2020-21 (induced by the COVID-19 crisis), but as the charts on pages 4 and 14 and the table below clearly illustrate, dispersion in the hedge fund industry in aggregate is at a significantly higher level relative to the past ten years.

Dispersion in the hedge fund industry in aggregate is at a significantly higher level relative to the past ten years.

As already highlighted, quant strategies are the top performing in H1 2022 so far. The strategy is also exhibiting the greatest level of dispersion on a relative basis (61% higher than their historical ten-year average). It should also be noted that dispersion within quant funds is beyond the highs of 2020-21 and are approaching their ten-year highs (where the absolute peak level was over 40% in 2015). To put it another way, the difference between the top and bottom decile within quant today is just under a 40% absolute spread (on a rolling 12-month CAR basis) compared to a 26% average spread over the last ten years. The primary driver of this has been some of the extreme outperformance of the top decile quant strategies, particularly with regards to some of the CTAs and quant macro players who are outperforming. It's also interesting to note that within quant (see candlestick strategy dispersion charts over the last 12 months on [page 15](#)), the bottom decile of the strategy outperforms every other bottom decile from other master strategies and also performs better than both the mean and median average of the long-biased strategy.

The second-best performing master strategy, multi-strategy, has not only been very consistent over the last five years but is by far the best on a risk-adjusted basis. Multi-strategy has also exhibited far less dispersion between top and bottom performers than in other spaces, even though as a space they are also showing slightly more dispersion versus their long-term average.

Arbitrage strategies, perhaps surprisingly given how well the tail-risk sub strategy has performed YTD, are not showing a significant deviation from longer-term dispersion trends. It's a similar story with event-driven and credit managers. These three categories are also currently showing the least dispersion between top and bottom decile performers in absolute terms relative to other strategies.

Macro is another strategy where there has been a big uptick in dispersion. As covered earlier in the report, this is to be expected, with some underlying managers having done exceptionally well in areas like commodities and directional rates trading in response to the changing inflation dynamic. Others in the macro space with more of a long risk-asset bias have been caught out, especially in emerging market.

Equity l/s and long-biased strategies have exhibited the greatest absolute dispersion spread between top and bottom decile funds. l/s.

Aurum would also highlight some interesting observations looking at the month-by-month dispersion candlestick charts for each strategy. Unsurprisingly, areas like equity l/s and long biased have consistently exhibited very high dispersion, not just between top and bottom decile but across the interquartile range. The most extreme equity market sell-offs (Jan, Apr, Jun) created a very visible 'accordion' effect (expanding out and coming in). Other areas like multi-strategy have shown a consistent pattern of dispersion month-by-month. In quant and macro, dispersion has expanded and remains high. Arbitrage shows relatively tight levels of dispersion for the most part, before rapidly expanding to the upside in the last three months. Credit started the year by exhibiting relatively tight levels of dispersion, but this gradually widens, with hardly any significant outperformance, but a material worsening of the bottom decile performance month-by-month.

Strategy correlation has also exhibited some significant changes over the last 12 months, as some areas have shown considerably more resilience to recent market pressures compared to others.

Strategy correlation has also exhibited some significant changes over the last 12 months, as some areas have shown considerably more resilience to recent market pressures compared to others. Arbitrage strategies have exhibited low to negative correlation versus all the other master strategies, except multi-strategy, over the last 12 months and over five years appear to suggest they are the most diversifying strategy versus the rest. Multi-strategy funds, whilst being the best performing from an absolute and risk adjusted perspective over the last five years, have had a higher correlation to risk assets and other strategies. However, this may simply be a function of them consistently making money, with most other strategies also doing well up to the 2022. Over the last year multi-strategy funds have 'decoupled' from other strategies (apart from arbitrage), exhibiting low or negative correlation. Once again, the highly correlated areas to note are credit, equity l/s, event and long biased. All tend to have high correlation to risk-assets and a higher cross correlation. These are also areas where the

'alpha' has been much lower and returns that have been attributed to beta have consequently been much higher. The first half of 2022 was a stark reminder of the perils of holding strategies/funds that have significant market risk-factor exposure. It was no surprise that areas such as multi-strategy, macro, quant, arbitrage and other market neutral/relative value-oriented strategies have been more resilient. In addition to this I would draw your attention to the average intra-strategy correlation chart (on [page 17](#)). The chart can give an indication of the extent of homogeneity of funds within a certain strategy bucket. So, while long biased managers may be strong performers in recent years, as a group they exhibit a high degree of cross correlation. This is unsurprising given they are highly likely to carry a lot of common factor risk or beta to the market, and as such they are more likely to move together.

The areas where Aurum focuses are more towards the left-hand side of the chart. i.e., macro (including commodities and global macro, EM macro – which is on the extreme right-hand side of the chart – is not a focus), quant (including stat arb, short-term futures/quant macro and quant volatility), multi-strategy and trading-oriented event. These strategy categories are more heterogenous and are where one can potentially add a lot more value from fund/manager selection. These are also the areas that tend to exhibit the lower beta to bonds and equities as described above, with H1 2022 being a perfect example of this.

STRATEGY DISPERSION – ROLLING SPREAD 10-90th PERCENTILE

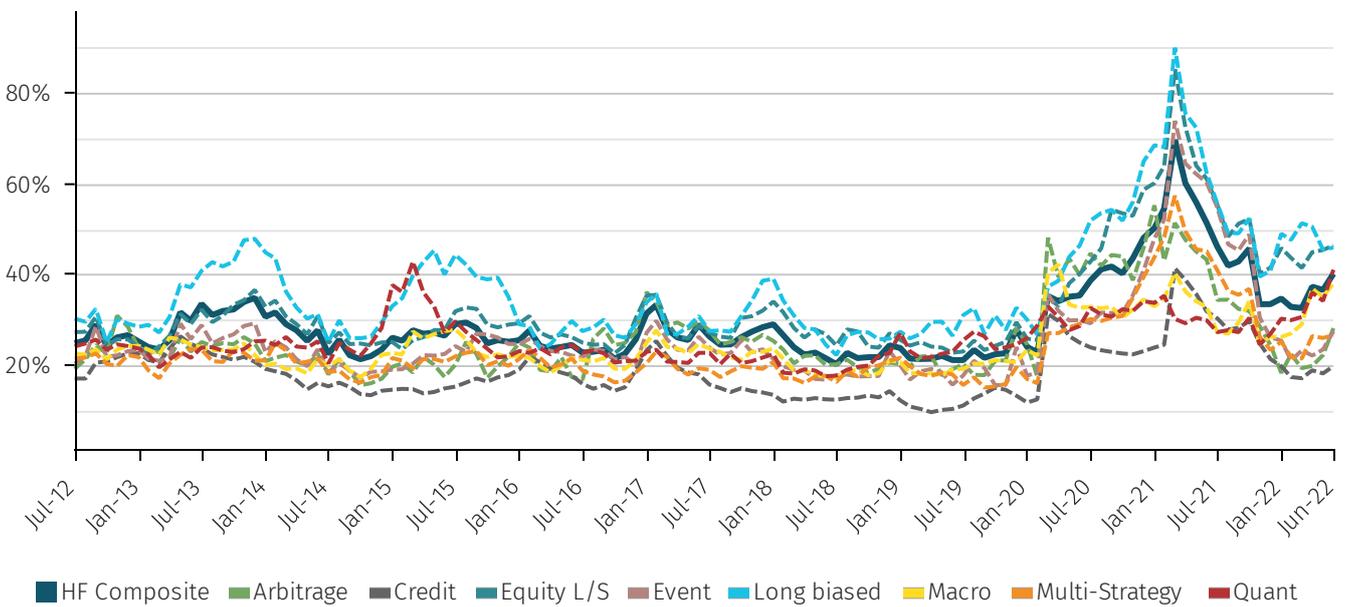
Strategy	Average 10 year	Jun-22	Current elevation vs 10 year average
Quant	25.54%	41.05%	60.77%
Macro	24.35%	38.07%	56.36%
Equity L/S	33.01%	46.41%	40.58%
HF Composite*	29.66%	40.18%	35.47%
Long biased	37.05%	45.95%	24.03%
Multi-Strategy	23.01%	26.70%	16.05%
Arbitrage	25.93%	28.21%	8.76%
Event	25.96%	27.55%	6.15%
Credit	18.74%	19.87%	6.04%

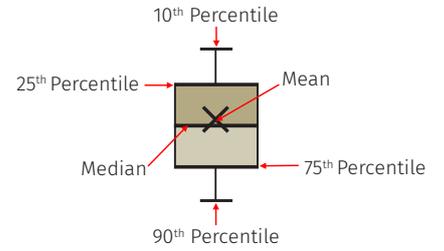
Performance dispersion

HEDGE FUND INDUSTRY DISPERSION – 12M ROLLING RETURN

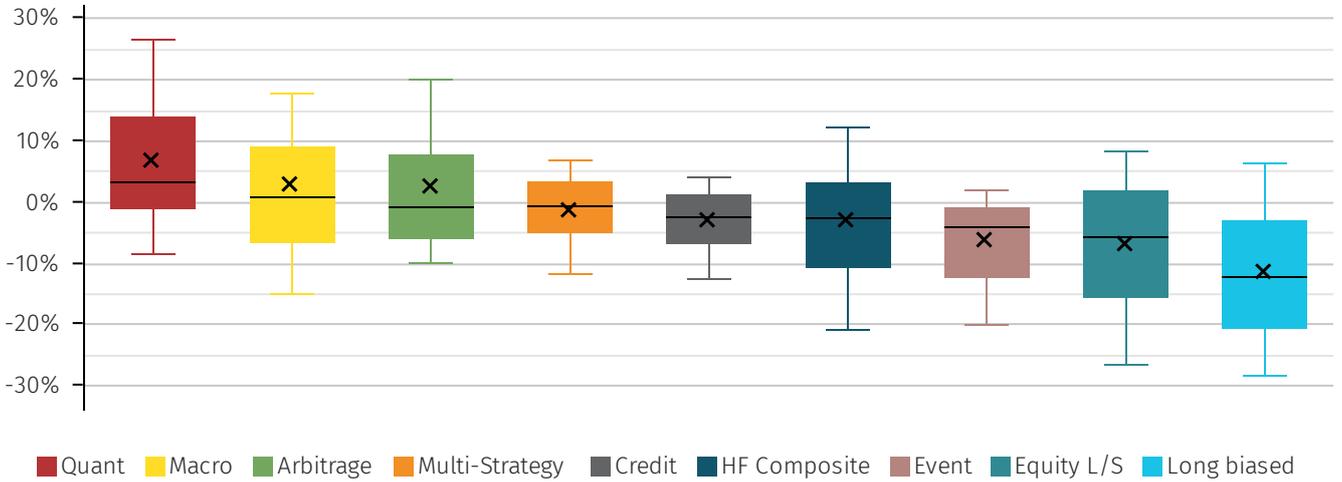


MASTER STRATEGY 10th – 90th PERCENTILE 12M ROLLING PERFORMANCE SPREAD

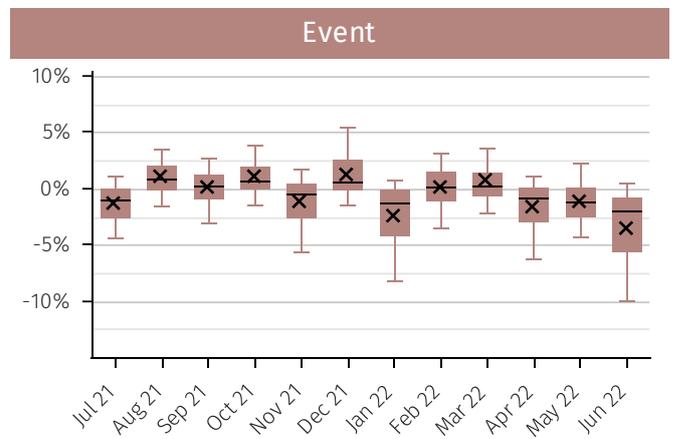
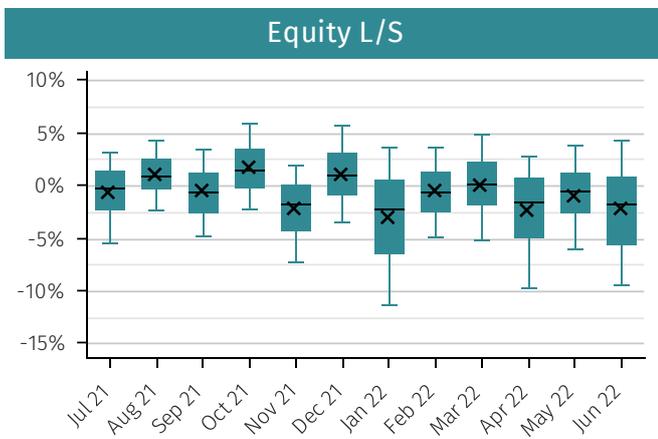
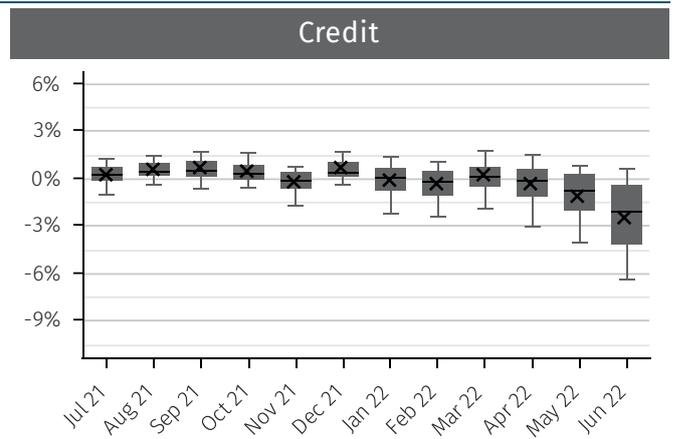
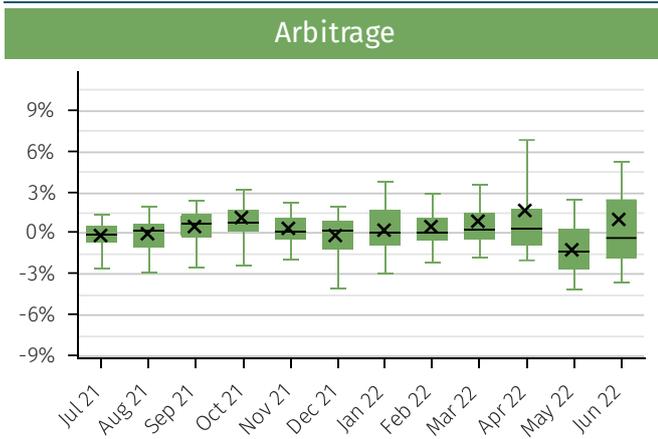




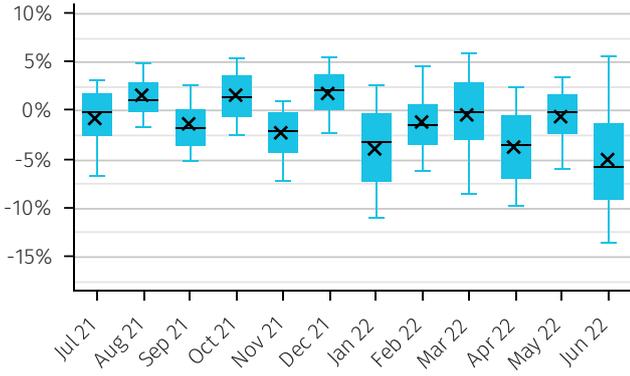
2021 MASTER STRATEGY PERFORMANCE DISPERSION (YTD)



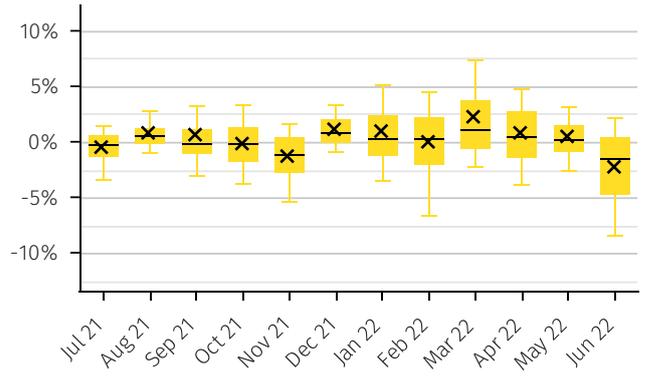
MASTER STRATEGIES NET MONTHLY RETURN DISTRIBUTION



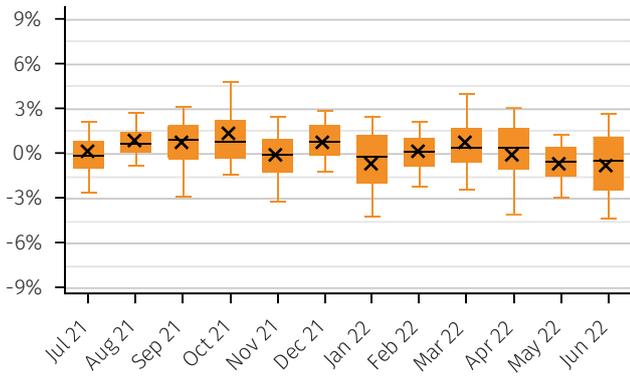
Long biased



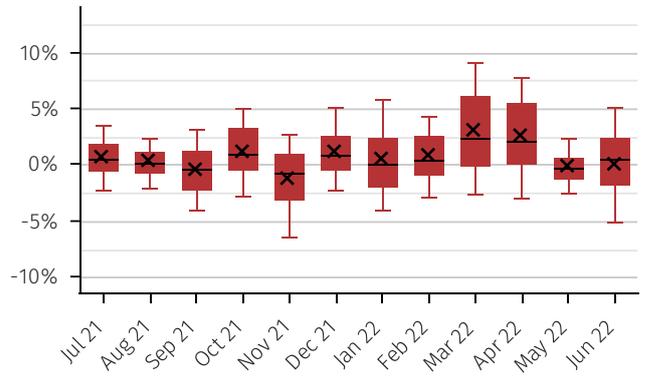
Macro



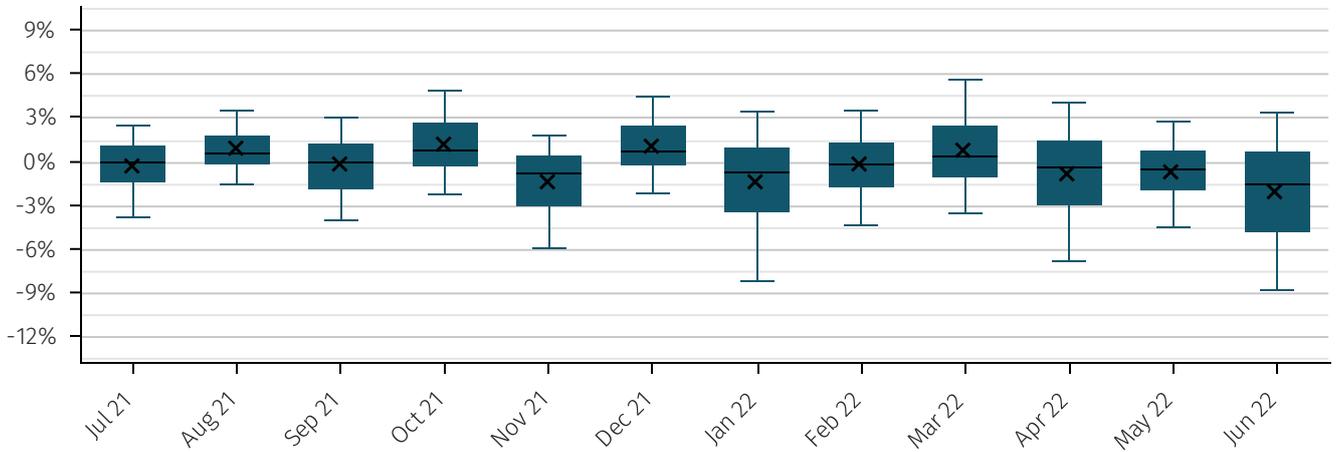
Multi-Strategy



Quant



HF Composite



Correlation

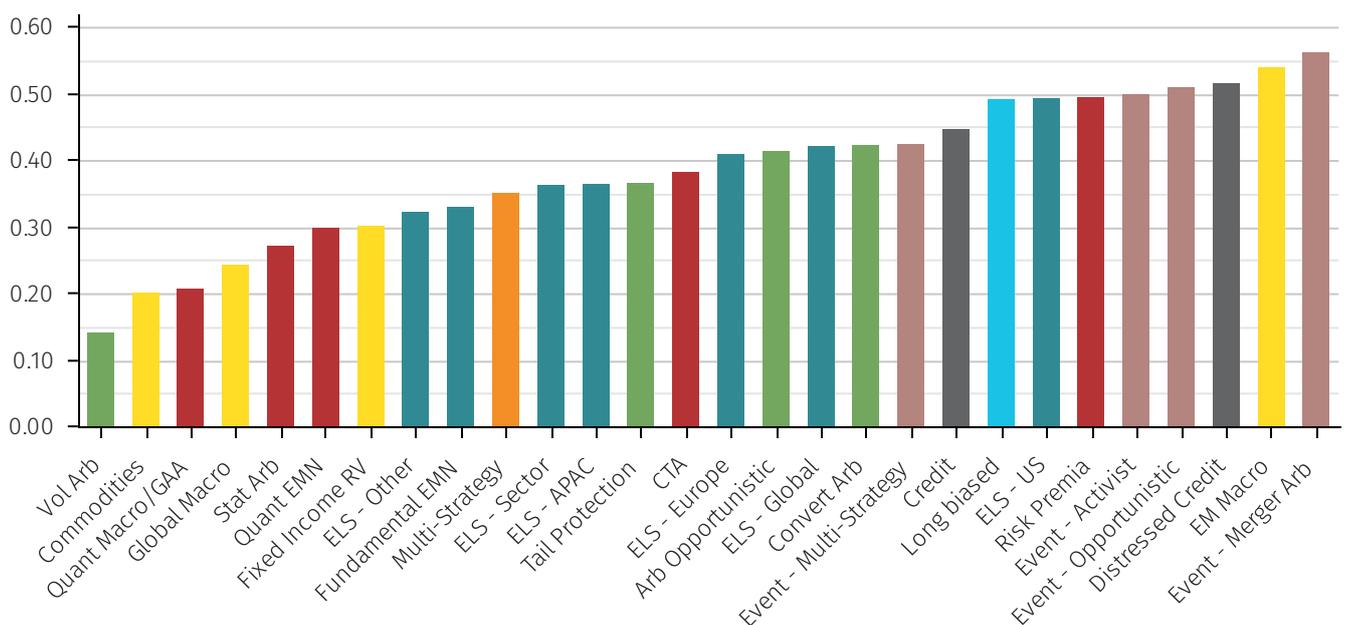
MASTER STRATEGY CORRELATION MATRIX (5 YR)

	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite	Bonds	Equities
Arbitrage		0.55	0.33	0.43	0.29	0.43	0.64	0.18	0.44	0.10	0.18
Credit			0.71	0.86	0.81	0.79	0.72	0.39	0.87	0.35	0.71
Equity L/S				0.90	0.90	0.66	0.72	0.34	0.93	0.48	0.90
Event					0.95	0.78	0.74	0.41	0.96	0.38	0.91
Long biased						0.76	0.62	0.39	0.94	0.56	0.96
Macro							0.72	0.51	0.83	0.31	0.70
Multi-Strategy								0.52	0.81	0.18	0.56
Quant									0.55	-0.08	0.38
HF Composite*										0.42	0.90
Bonds**											0.47
Equities***											

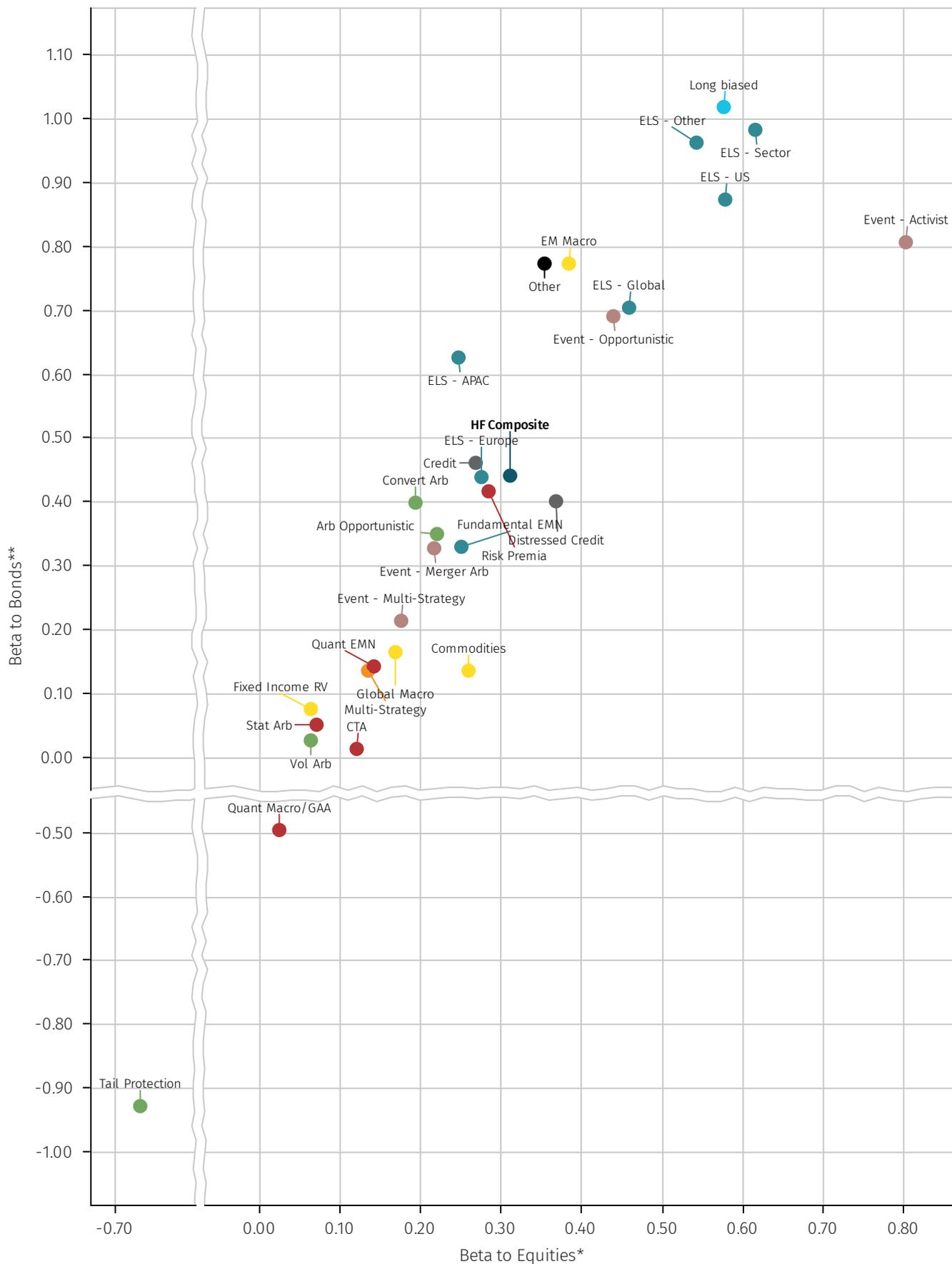
MASTER STRATEGY CORRELATION MATRIX (1 YR)

	Arbitrage	Credit	Equity L/S	Event	Long biased	Macro	Multi-Strategy	Quant	HF Composite	Bonds	Equities
Arbitrage		-0.04	-0.34	-0.14	-0.48	0.01	0.73	0.33	-0.16	-0.72	-0.56
Credit			0.45	0.91	0.80	0.29	0.14	0.03	0.74	0.39	0.67
Equity L/S				0.71	0.69	-0.21	-0.15	0.05	0.83	0.46	0.77
Event					0.87	0.28	0.07	0.14	0.92	0.36	0.81
Long biased						0.13	-0.37	-0.02	0.81	0.69	0.97
Macro							0.25	0.59	0.28	-0.39	0.08
Multi-Strategy								0.35	0.07	-0.62	-0.46
Quant									0.40	-0.58	0.01
HF Composite*										0.26	0.81
Bonds**											0.70
Equities***											

AVERAGE INTRA-STRATEGY CORRELATION (5 YR)¹



SUB-STRATEGY BETA TO BONDS AND BETA TO EQUITIES (5 YR)



Hedge funds vs alt UCITS

The table below presents returns of hedge funds relative to their alternative UCITS (“alt UCITS”) counterparts. As can be clearly seen, hedge funds, on average, significantly outperformed their newer, cheaper cousins in 2022 YTD and over a five-year period.

There are however, some exceptions to note. The equity l/s and long biased spaces (two areas that are typically easier to in a UCITS format) have underperformed their alt UCITS counterpart YTD in 2022 (although still comfortably outperform over the longer five-year timeframe). It’s also interesting to note that the event space significantly underperformed YTD (driven primarily by very poor performance from the activist managers), with many of the UCITS funds being more focused on merger-arbitrage. It should also be noted that the -3.4% alt-UCITS performance in event is similar to (although actually underperforms) the merger-arbitrage hedge fund space (-2.4%). Over the longer timeframe, event outperforms alt UCITS counterparts.

As well as the longer-term consistent lagging performance of alt UCITS relative to hedge funds it should be highlighted where the differences are not just ones of magnitude, but also in direction of performance. For example, the only alt UCITS strategy to be up YTD is in quant –, again this is not a shock given that trend-following CTAs, the best performing hedge fund sub-strategy, can fit relatively easily into a UCITS format. However, areas such as multi-strategy (top performing long-term hedge fund strategy and solidly up YTD) are down considerably on the alt UCITS side. Once again although it may seem obvious, it’s worth reiterating the point that trying to construct businesses/vehicles that have the breadth and depth of their hedge fund counterparts in areas like multi-strategy is a long way from ever being a like-for-like comparison. The performance figure differential is a stark reminder of this.

Macro strategies have made money YTD in 2022, while their alt UCITS counterparts are down. Macro funds of course are a highly heterogeneous mix of funds, some of which operate relatively simple and easy to execute strategies (which may also lend themselves to a UCITS format), while others are highly complex from an operational perspective or have significant barriers from a structural perspective, making them impossible to recreate in a UCITS format.

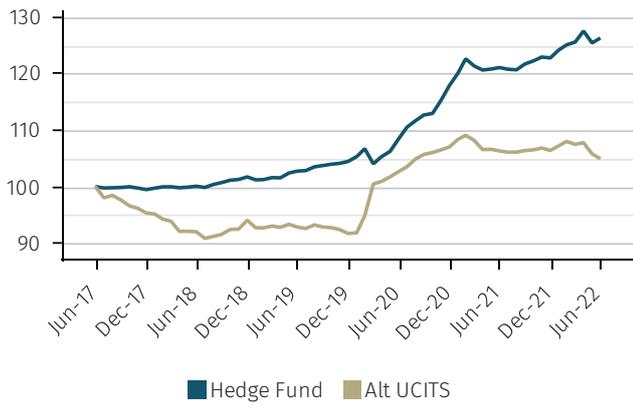
While a significant driver of interest in alt UCITS has been the low fees and promise of comparable returns to hedge funds, the data in this report demonstrates that the reality has been disappointing. If one were clutching at straws there has been some marginally ‘less bad’ performance by alt UCITS funds in a couple of areas (maybe equity l/s managers should take note!) which won’t make happy reading for their hedge fund counterparts. Overall, however, hedge funds have gone some way to justifying the fees one pays to access them relative to their inexpensive competition.

HEDGE FUNDS VS ALT UCITS RETURNS

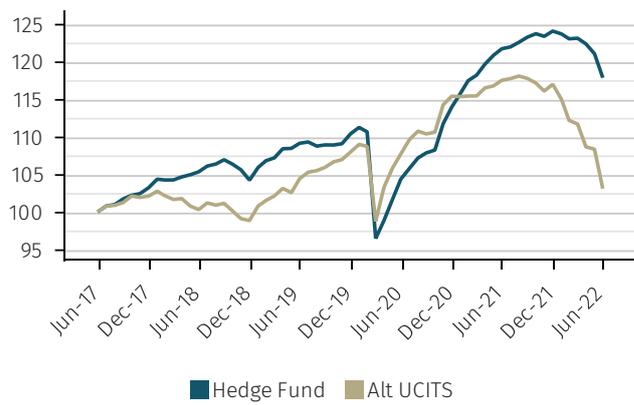
	2022 Returns		5Y Returns		5Y Vol		5Y Sharpe		AUM (\$bn)		Fund Count	
	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS	Hedge Fund	Alt UCITS
Arbitrage	2.87%	-1.39%	4.78%	0.97%	2.94%	4.11%	1.15	-0.07	68.3	6.4	112	15
Credit	-5.00%	-11.86%	3.34%	0.61%	6.86%	6.26%	0.32	-0.08	412.8	32.3	485	40
Equity L/S	-12.66%	-6.59%	4.35%	1.76%	8.61%	4.62%	0.38	0.11	556.4	48.3	1,092	119
Event	-7.31%	-3.36%	6.01%	1.78%	6.86%	4.42%	0.69	0.12	281.5	17.2	219	30
Long biased	-14.83%	-12.09%	4.09%	0.57%	9.93%	5.82%	0.32	-0.10	396.5	29.5	316	41
Macro	2.09%	-4.87%	3.83%	1.22%	4.75%	6.78%	0.54	0.02	347.8	28.9	344	48
Multi-Strategy	4.19%	-7.61%	9.25%	2.01%	4.02%	4.46%	1.90	0.17	409.6	20.4	181	18
Quant	10.76%	3.14%	4.34%	0.09%	5.03%	3.92%	0.61	-0.30	429.2	17.9	458	68
HF Composite*	-4.00%	-7.37%	4.73%	1.02%	5.73%	4.60%	0.60	-0.04	3042.5	209.8	3,485	407
Bonds**	-14.31%	-14.31%	-0.83%	-0.83%	5.44%	5.44%	-0.37	-0.37	-	-	-	-
Equities***	-21.33%	-21.33%	4.68%	4.68%	16.52%	16.52%	0.28	0.28	-	-	-	-

HEDGE FUNDS VS ALT UCITS

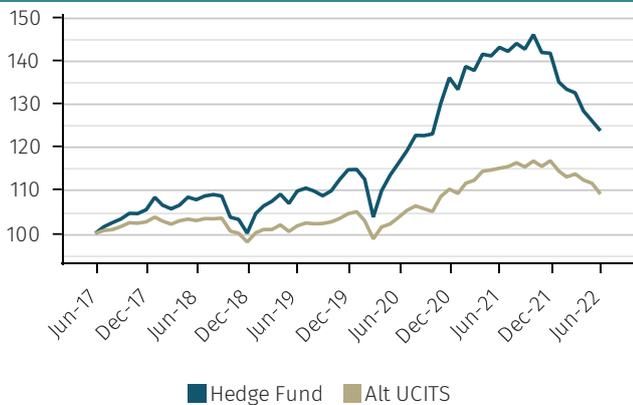
Arbitrage



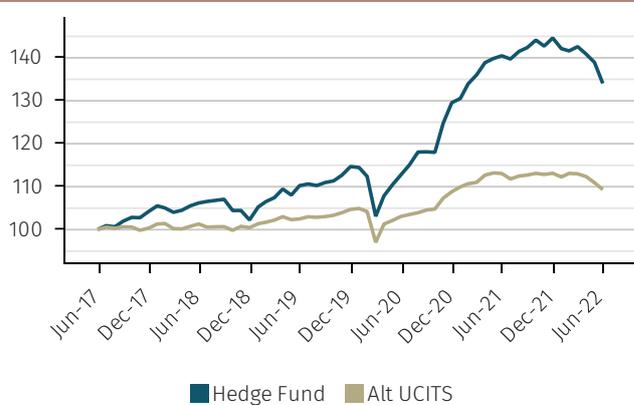
Credit



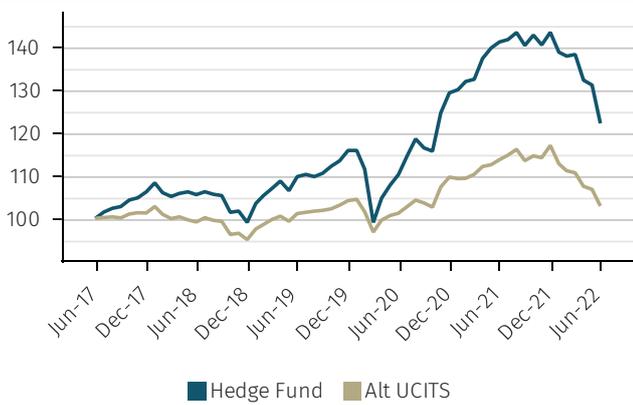
Equity L/S



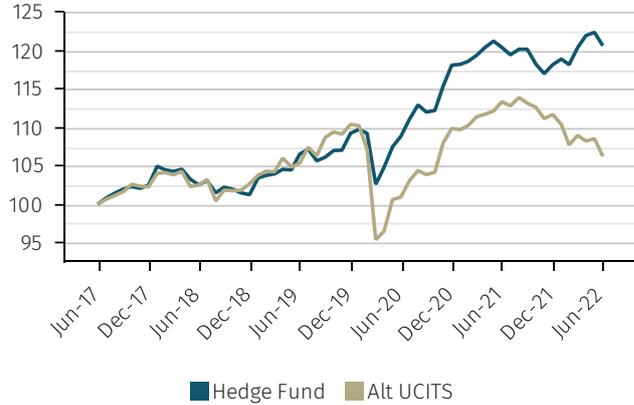
Event



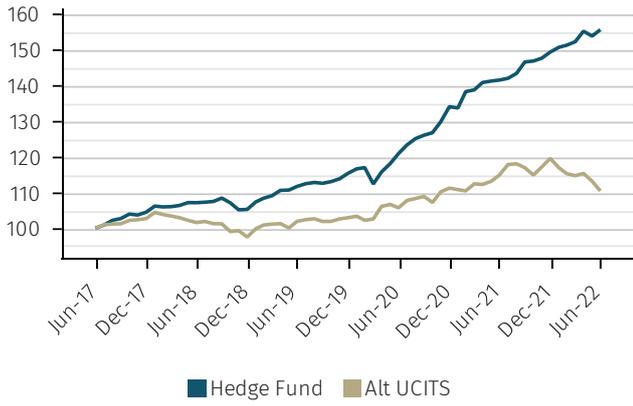
Long biased



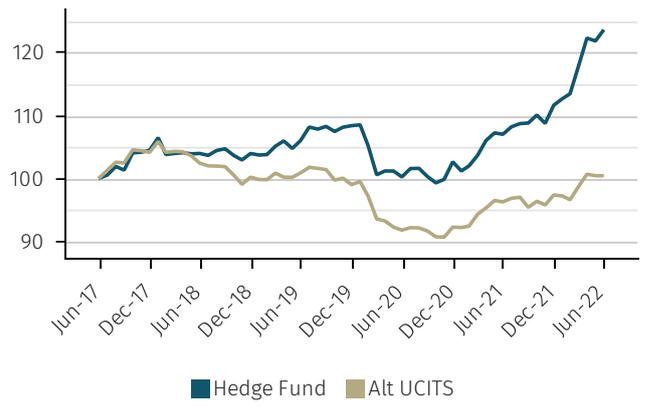
Macro



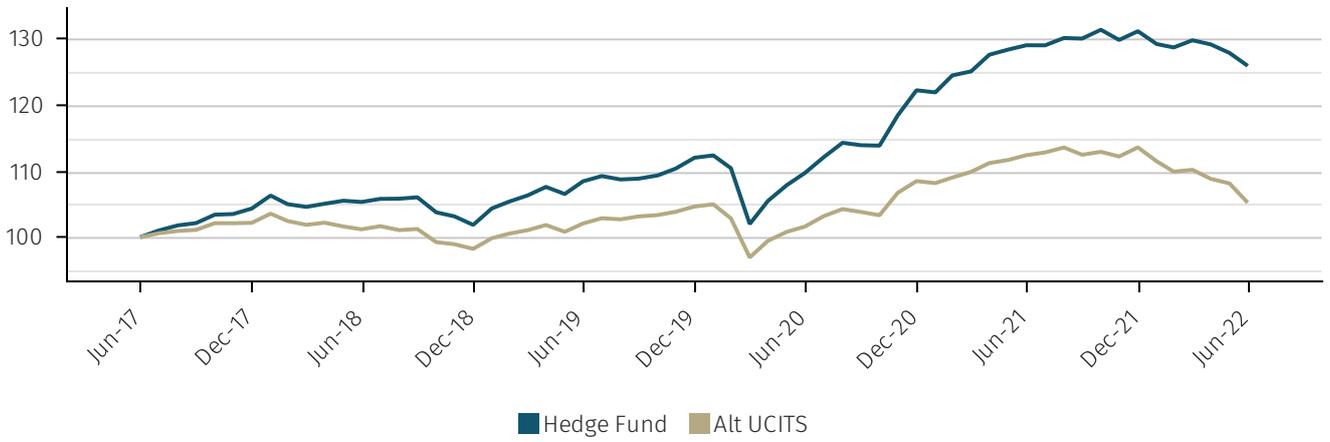
Multi-Strategy



Quant



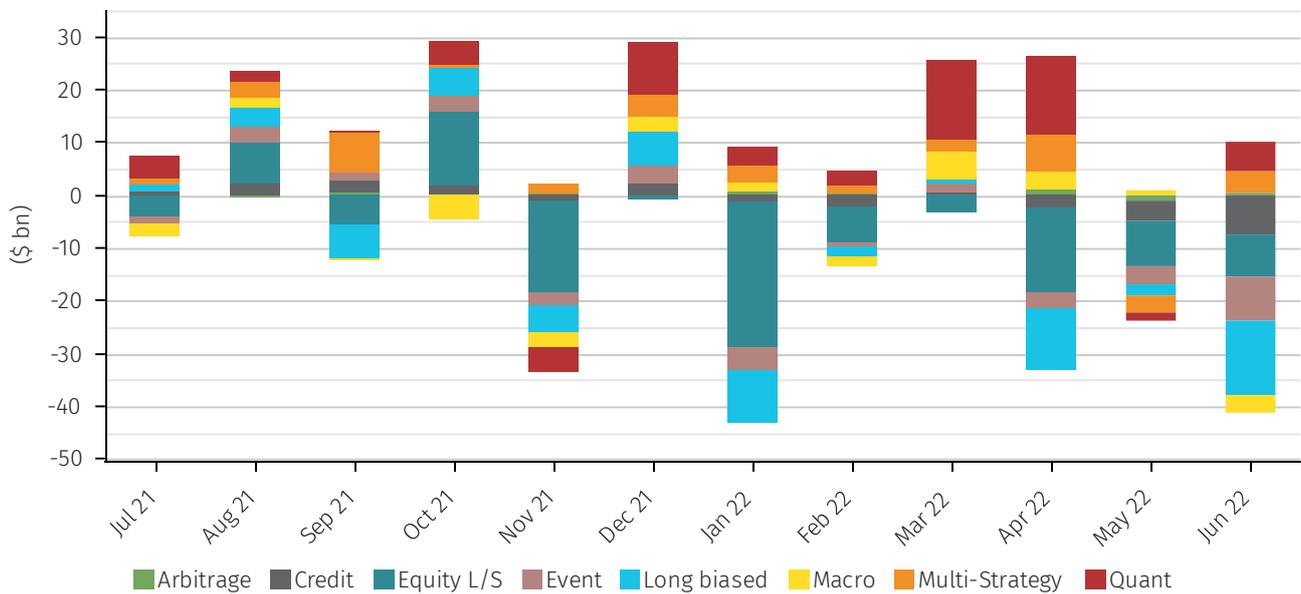
HF Composite



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 negative performance (or ‘dollar destruction’) towards the end of last year (Nov 21) and then in January and April in particular, there were very large losses (together totalling well over \$70bn) with the majority coming from the equity l/s and long-biased funds. However, April’s figure was significantly offset by gains on the quant, macro and multi-strategy side. May and June’s losses were not as severe on a strategy-by-strategy perspective, however there was very little to offset the negative performance with only marginal gains from the macro and multi-strategy spaces. The strategy dollar returns and AUM relative to industry chart below needs some context. Given that the industry in general had negative performance, then the ‘percentage of industry total’ returns represents the relative share of a negative figure. As such, equity l/s were responsible for over 80% of the dollar losses experienced by the industry, whilst only representing approximately 20% of industry assets, a massive disappointment. Similarly, long biased strategies were nearly 50% of the net industry losses and represented about 10% of the assets. Credit’s negative contribution was in line with its size, event was disappointing and of course the big outperformer was quant, with positive contributions also provided by multi-strategy and macro (with arbitrage barely registering given it is such a small space). Quant funds represented just over 15% of the AUM and drove over -50% of the returns (i.e. a positive dollar generation given the industry as a whole lost money).

NET DOLLAR PERFORMANCE BY MASTER STRATEGY (1 YR)



STRATEGY DOLLAR RETURNS AND AUM RELATIVE TO THE INDUSTRY (YTD)*

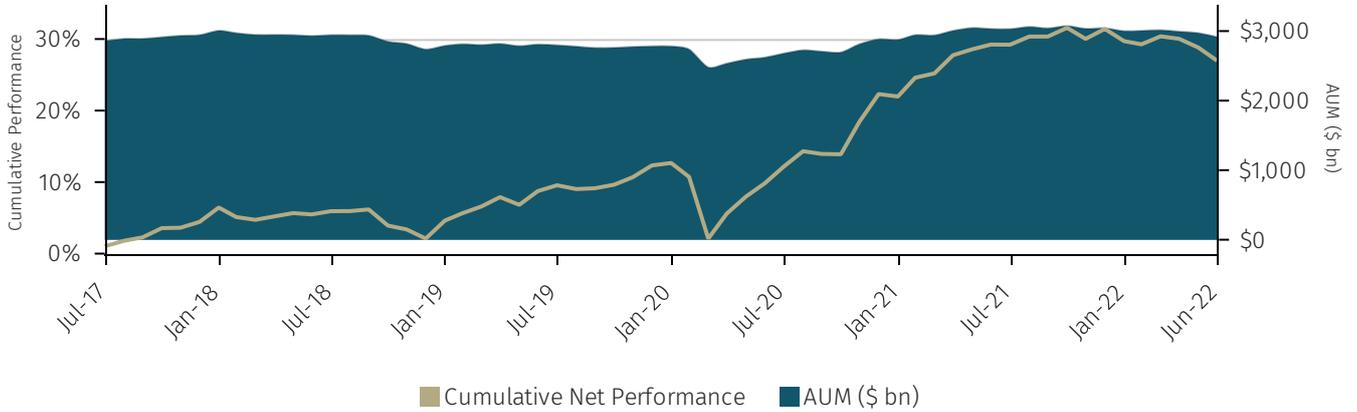


Industry assets, flows and fees

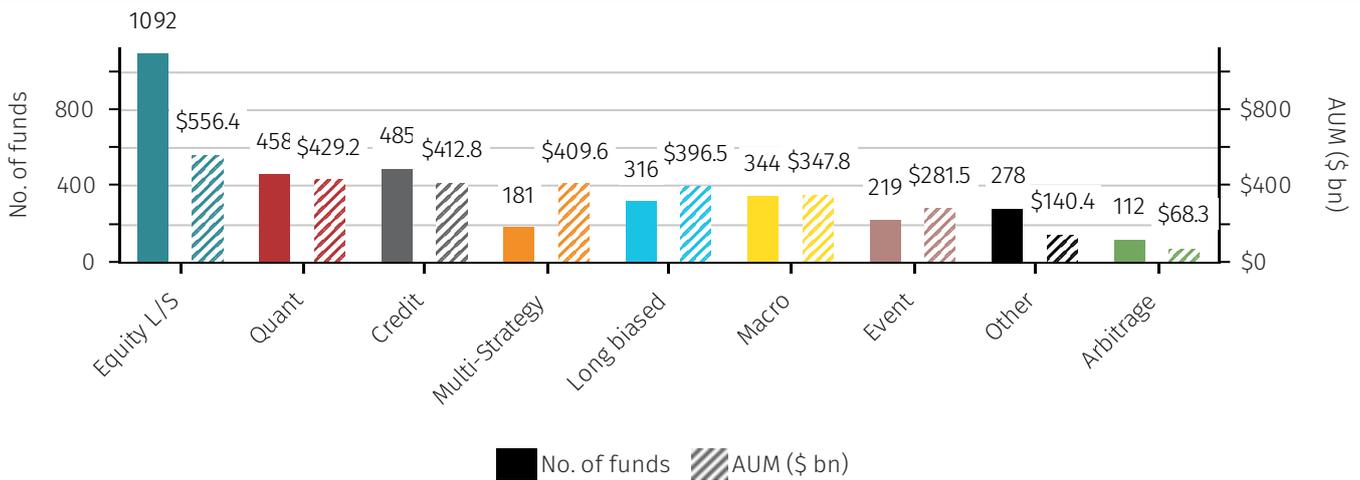
Although the space has shrunk significantly due to poor performance, equity l/s remains the largest strategy, running \$556bn of assets. Quant strategies, driven by returns and inflows are now the second largest strategy at \$429bn.

Equity l/s, credit, long biased, macro, and event strategies have all shrunk over the last six months. Multi-strategy, and quant have all grown.

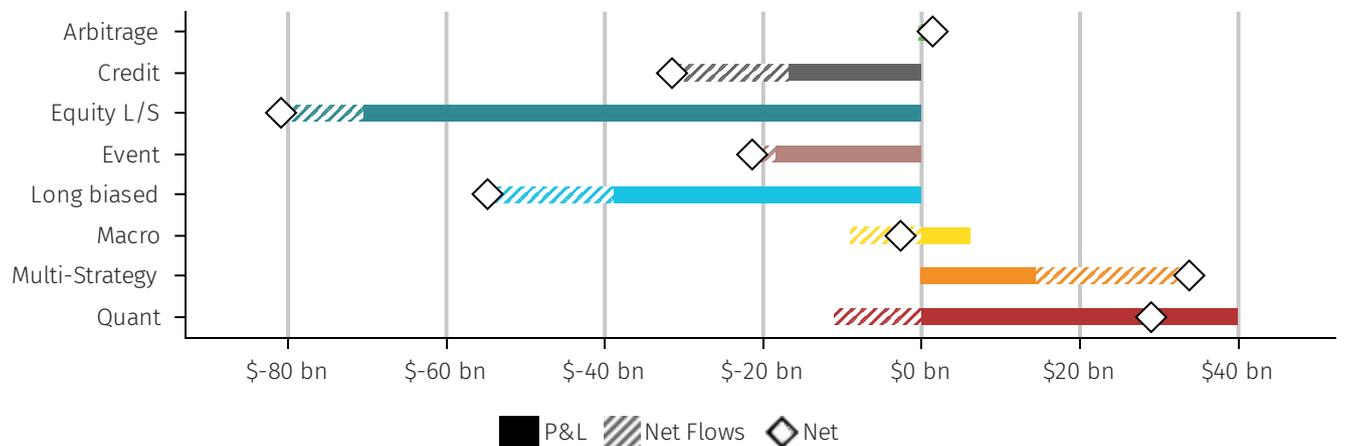
HF COMPOSITE ASSETS (5 YR)*



NUMBER OF FUNDS AND AUM BY MASTER STRATEGY (YTD)

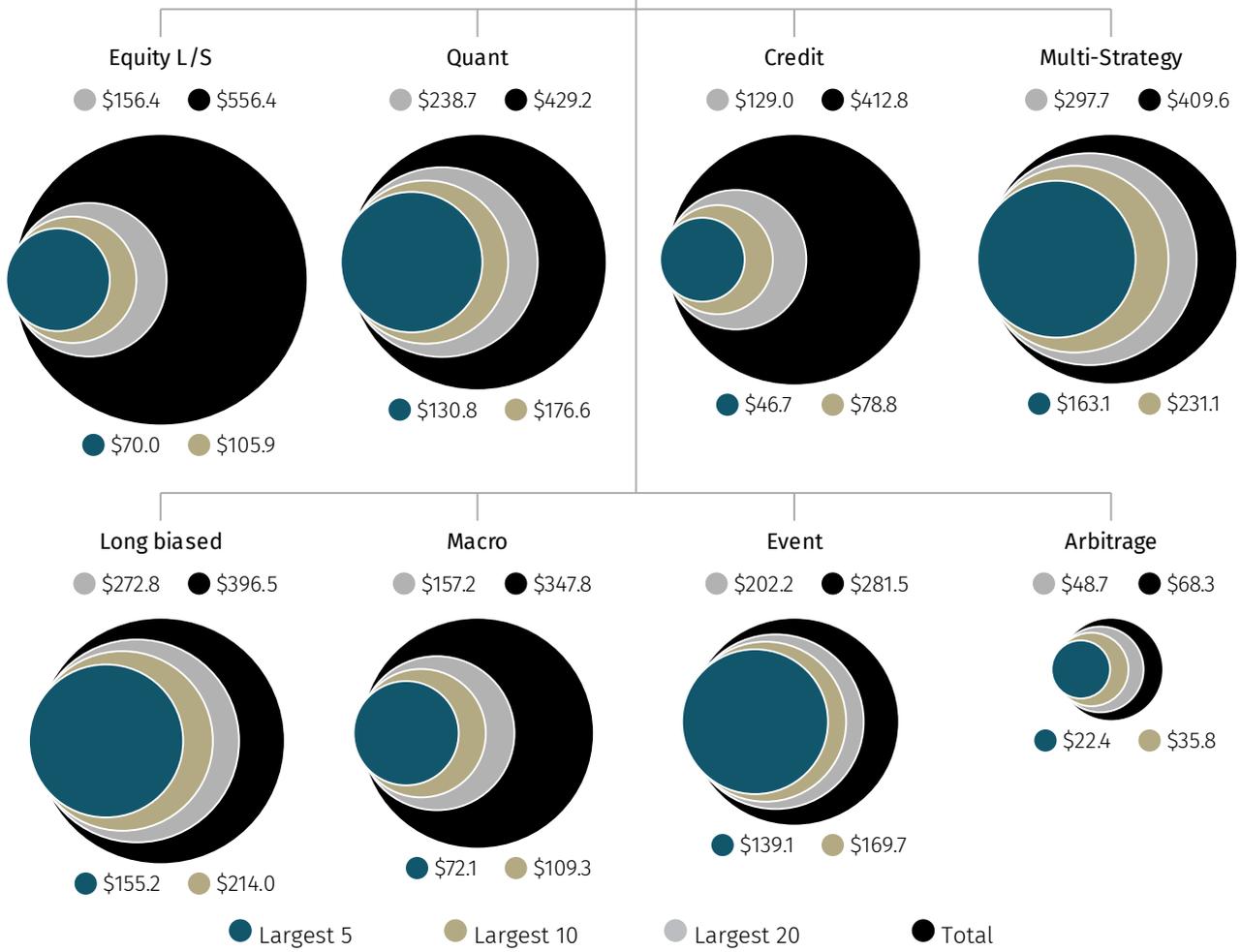


CHANGE IN AUM BY MASTER-STRATEGY (YTD)

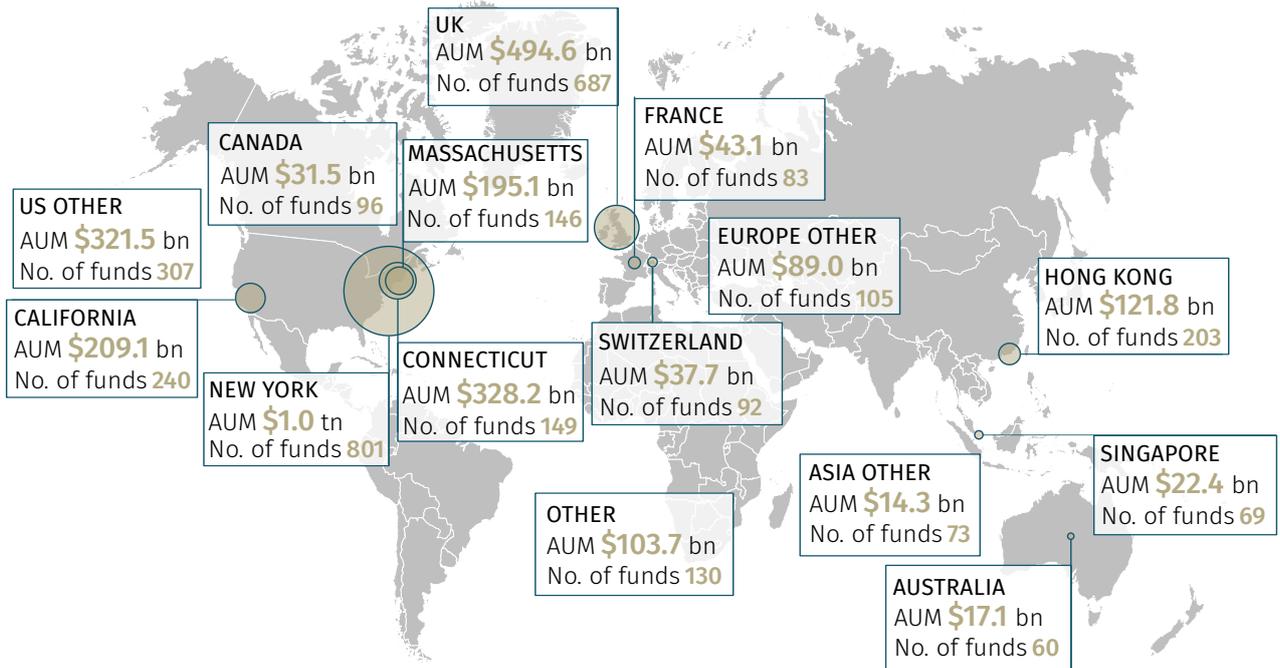


SUB-STRATEGY FUND CONCENTRATION (\$ BN)

Hedge Fund Industry



ASSETS UNDER MANAGEMENT BY LOCATION*



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	109	1.47%	19.39%
Convertible Bond	45	Quarterly	114	1.30%	17.83%
Opportunistic	60	Quarterly	145	1.30%	21.32%
Tail Protection	30	Monthly	55	1.48%	16.13%
Volatility Arbitrage	25	Monthly	92	1.72%	19.45%
Credit	60	Quarterly	168	1.21%	16.96%
Credit	60	Quarterly	146	1.09%	15.53%
Distressed	90	Quarterly	223	1.55%	19.71%
Equity l/s	45	Monthly	137	1.44%	19.09%
Asia Pacific Long / Short	45	Monthly	140	1.53%	20.41%
European Long / Short	30	Monthly	85	1.30%	19.35%
Fundamental Equity MN	30	Monthly	97	1.58%	18.72%
Global l/s	45	Quarterly	174	1.46%	19.17%
Other l/s	30	Monthly	77	1.35%	16.38%
Sector	45	Quarterly	144	1.59%	18.67%
US Long / Short	45	Quarterly	140	1.26%	19.09%
Event	60	Quarterly	186	1.48%	19.40%
Activist	90	Quarterly	172	1.51%	18.93%
Merger Arbitrage	30	Monthly	66	1.29%	17.47%
Multi-strategy	60	Quarterly	224	1.47%	19.92%
Opportunistic	60	Quarterly	165	1.54%	19.52%
Long biased	30	Monthly	77	0.88%	10.46%
Macro	30	Monthly	101	1.50%	18.41%
Commodities	30	Monthly	66	1.32%	18.84%
Emerging Markets	30	Monthly	88	1.16%	14.26%
FIRV	30	Monthly	119	1.65%	22.78%
Global Macro	30	Monthly	102	1.60%	17.93%
Multi-Strategy	45	Monthly	157	1.86%²	20.61%
Quant	5	Monthly	52	1.62%	17.60%
CTA	3	Weekly	34	1.34%	15.71%
Quantitative Equity MN	30	Monthly	75	1.32%	14.58%
Quant Macro/GAA	7	Monthly	30	1.97%	19.52%
Risk Premia	3	Daily	28	0.68%	6.29%
Statistical Arbitrage	30	Monthly	111	2.49%	24.14%

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 mispricing. 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 l/s 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 L/S

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 l/s:

Investing 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 l/s:

Investing 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 l/s:

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 l/s:

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 pre-set 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.

Bond and equity indices

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