THE EUREKAHEDGE REPORT

JANUARY 2019


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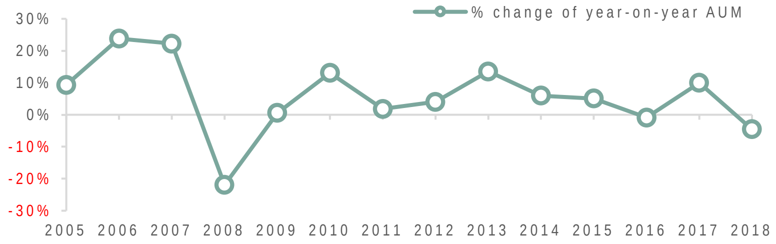
EUREKAHEDGE

INFOGRAPHIC SUMMARY OF GLOBAL HEDGE FUNDS

INFO GRAPHIC

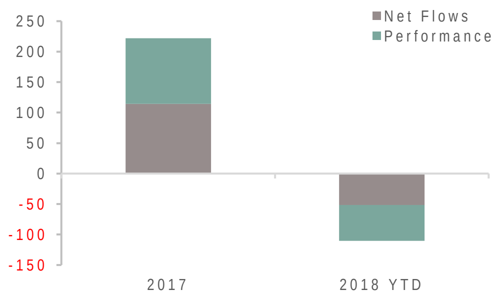
GLOBAL HEDGE FUNDS AUM (2005 – 2018 YTD)

US$2,336.2 billion AUM 68% NORTH AMERICA



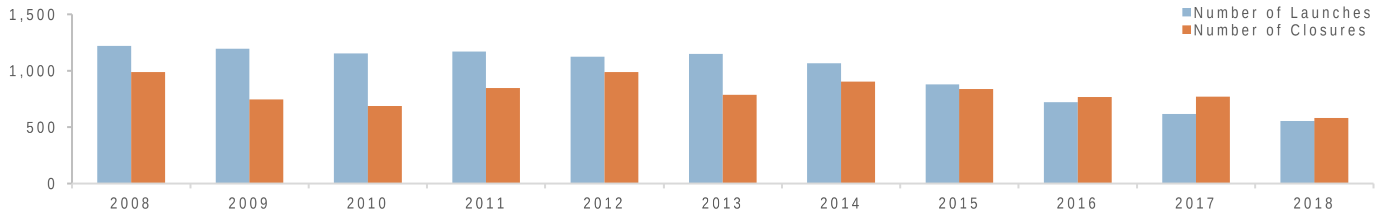
Source: Eurekahedge

US$114.6 billion investor inflows in 2017
US$51.6 billion investor outflows in 2018 YTD



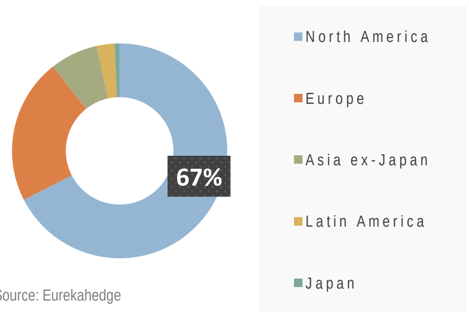
Source: Eurekahedge

LAUNCHES AND CLOSURES SINCE 2008



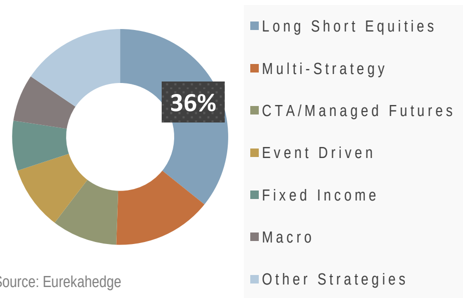
Source: Eurekahedge

AUM BY INVESTING GEOGRAPHY, 2018



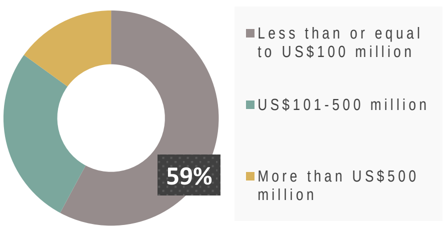
Source: Eurekahedge

AUM BY STRATEGY, 2018



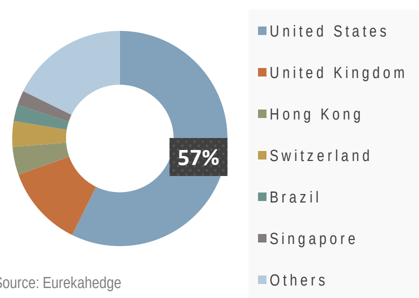
Source: Eurekahedge

NUMBER OF FUNDS BY FUND SIZE, 2018



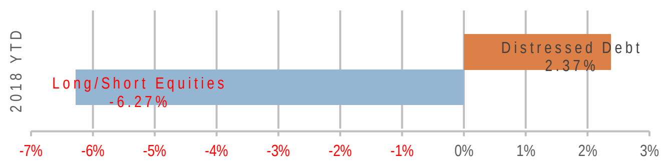
Source: Eurekahedge

HEAD OFFICE LOCATIONS, 2018



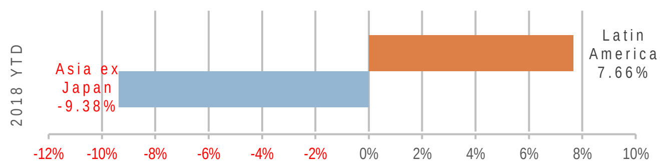
Source: Eurekahedge

BEST AND WORST STRATEGY, 2018



Source: Eurekahedge

BEST AND WORST REGIONAL MANDATE, 2018



Source: Eurekahedge

Introduction

"Preliminary data for December shows that the industry saw US$11.3 billion of performance-driven losses as well as US$12.2 billion of net outflows."

"The AUM of the global hedge fund industry stood at US$2,336.2 billion as of December 2018, down roughly 4.5% throughout 2018."

"The long/short equities mandate suffered US$18.0 billion of performance-based losses and US$3.5 billion of investor redemptions in December, owing to the equity market sell-off."

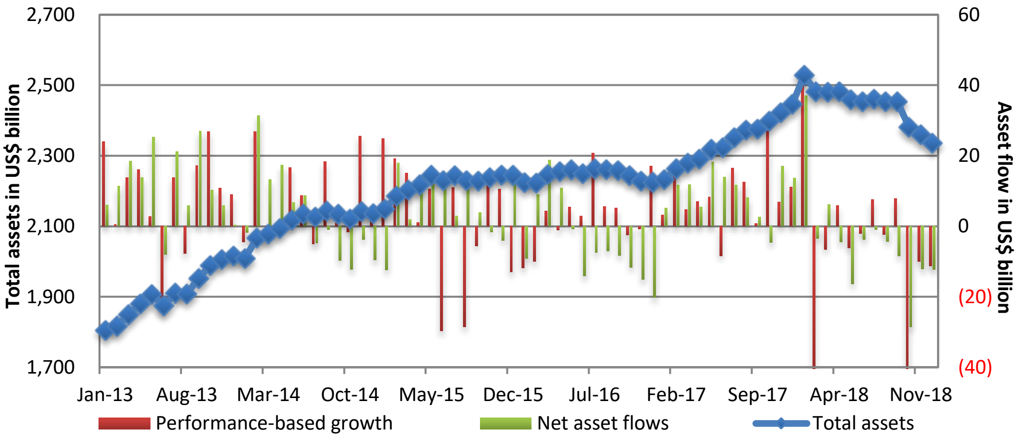
"Greater China and India mandates, the two best performers among regional mandates in 2017, were down 14.24% and 7.37% respectively throughout 2018."

The *Eurekahedge Hedge Fund Index* was down 1.31% in December[1], outperforming the MSCI AC World Index[2] which declined 7.61% in what turned out to be the worst month of 2018 for global equity markets. Concerns over the Fed's stance which turned out to be less Dovish than what investors expected triggered major equity sell-offs around the globe, and sent major equity indices plummeting during the month. The US equity markets suffered the worst blows during the volatile month, with the S&P 500 and the Dow slumping 9.18% and 8.66% respectively, recording their worst month of 2018, and in the latter's case, the worst December since the Great Depression. Asian equities continued their slump in December, despite Trump and Xi's agreement to postpone the next wave of tariff increases, which opened a path for further negotiations down the road. On the other hand, uncertainties surrounding Brexit deals continued to plague European equities, and outweighed the positive impact of the Italian government's success in securing a deal with the EU over its budgetary plan. In contrast to the US Federal Reserve's decision to raise rates, the European Central Bank held their rates and confirmed the end of their asset purchasing programme.

Final asset flow figures for November 2018 revealed that hedge fund managers suffered performance-based losses of US$10.1 billion and investor redemptions of US$12.1 billion. Preliminary data for December shows that the industry saw US$11.3 billion of performance-driven losses as well as US$12.2 billion of net outflows. The assets under management (AUM) of the global hedge fund industry stood at US$2,336.2 billion as of December 2018, down roughly 4.5% throughout the year, placing 2018 as the worst year for the global hedge fund industry since the global financial crisis.

As data coverage improves towards the end of the month, we expect the December performance-based losses figure to grow and reach comparable levels to what the global hedge fund industry saw back in February and October 2018.

Figure 1a: Summary monthly asset flow data since January 2013



Source: Eurekahedge

Key highlights of December 2018:

- *The [Eurekahedge Hedge Fund Index](#)* was down 3.85% in 2018, outperforming the MSCI AC World Index (Local) which declined 10.18% over the year. Throughout the year, the global hedge fund industry saw performance-based losses and net investor outflows totalling US$58.9 billion and US$51.6 billion respectively, in contrast to how the industry assets grew US$221.9 billion over the preceding year.

[1] Based on 40.89% of funds which have reported December 2018 returns as at 11 January 2019.
[2] MSCI AC World Index (Local)

- The first quarter of 2018 saw the return of market volatility, which pushed nearly every major strategic mandate down into the red in February. CTA/managed futures hedge funds suffered the heftiest losses, with the *Eurekahedge CTA/Managed Futures Hedge Fund Index* down 4.09% in February alone. Throughout the year, the mandate had lost 14.9% of its total AUM since the end of 2017.

- Preliminary data showed that the long/short equities mandate suffered US$18.0 billion of performance-based losses and US$3.5 billion of investor redemptions in December. Investors have redeemed US$18.3 billion from equity hedged strategies over the past year as they ended 2018 as the worst performing strategy - down 6.27% for the year.

- European hedge fund managers have been struggling under the uncertainties surrounding Brexit negotiations and Italy's budget concerns throughout most of 2018. The *Eurekahedge European Hedge Fund Index* spent eight months of 2018 in the red, and recorded its worst yearly return (-4.42%) since the peak of the Eurozone crisis in 2011.

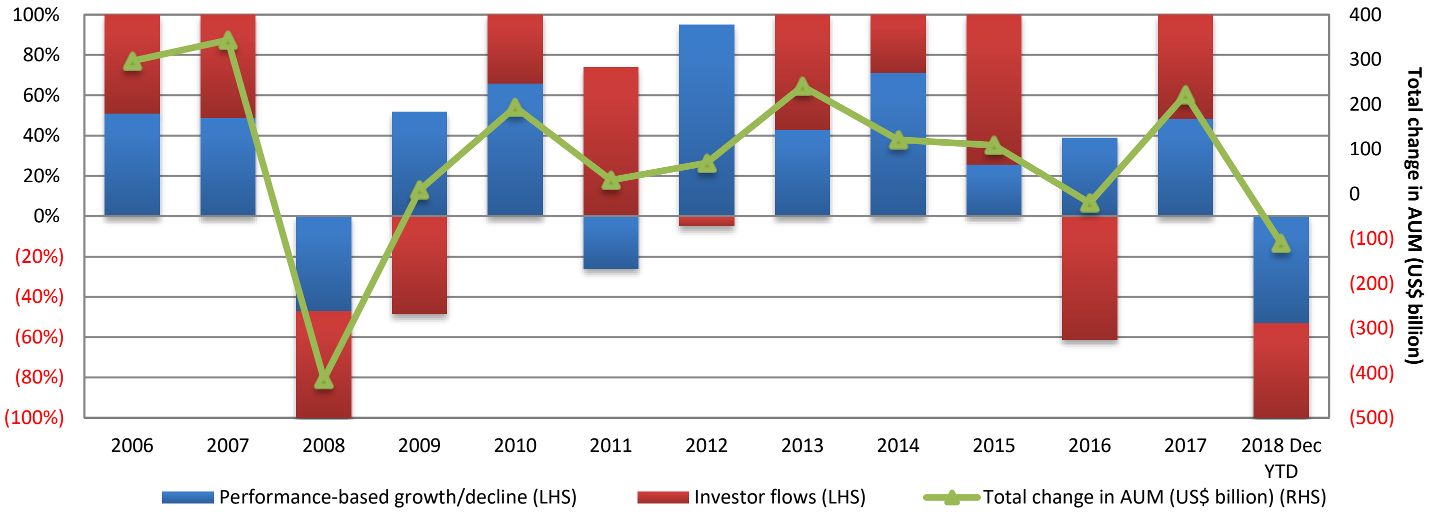
- Hedge fund managers focusing on Asia Pacific have been suffering from the US-China tariff spat and the Fed's rate hikes, which sent Asian equity markets and currencies plummeting. Greater China and India mandates, the two best performers among regional mandates in 2017, were down 14.24% and 7.37% respectively throughout 2018.

- Fund managers utilising AI/machine learning strategies were up 1.52% in November and 1.43% in December, ending their streak of losses which resulted in the first negative annual return recorded by the *Eurekahedge AI Hedge Fund Index*. The index was down 3.68% over 2018.

- The *Eurekahedge ILS Advisers Index* was down 2.93% throughout 2018, marking it as the second worst year behind 2017, during which the index slumped 5.60%. As the catastrophic losses incurred by Hurricane Florence and Hurricane Michael came to light, the US$100.7 billion ILS hedge fund industry were adversely affected.

- The *Eurekahedge Crypto-Currency Hedge Fund Index* was down 6.04% in December, as Bitcoin price nearly touched the US$3,000 level in the middle of the month. The index has wiped 70.27% of its value throughout 2018. In comparison, the index soared 1,708.50% in 2017, supported by the rally in crypto-currency prices during the year.

Figure 1b: Contribution by hedge fund performance and investor flows for the global hedge fund industry since 2006



Source: Eurekahedge

Figure 1b shows the share by performance-based growth/decline and net investor flows for the global hedge fund industry since 2006. During the pre-financial crisis period, the share of performance-based growth and investor inflows was almost evenly split with total asset growth coming in at US$343.4 billion. During the financial crisis in 2008, investor outflows accounted for over half of the total loss of capital for the global hedge fund industry as investors grew nervous over the prospect of their investments.

The years following the financial crisis saw accommodative central bank policies largely on the back of asset purchases and low interest rates, setting the momentum for an economic recovery. Investor sentiment improved with positive investor inflows in 2010 and 2011 but the height of the Eurozone crisis witnessed further redemptions in 2012 which were less severe than those in the post-global financial crisis period. In 2013, hedge funds recorded the strongest growth in their AUM since 2007 with assets increasing by US$240.4 billion during the year on the back of strong performance-based gains and investor inflows.

This happened against the backdrop of a global equity market rally and a recovery in the US economy that saw investors scale up their allocations to hedge funds. While the Greek and Ukrainian crisis contributed to some investor nervousness in 2014, investor inflows remained positive with modest performance-driven gains resulting in the industry's asset growing by half the levels seen in 2013. In 2016, performance-driven gains of US$35.1 billion were recorded while investor outflows stood at US$55.1 billion over the same period – the steepest outflows recorded since 2010. Redemption pressure appears to have eased going into 2017 as investors positive sentiment buoyed allocation activity into hedge funds. Hedge funds recorded the strongest growth in their AUM since 2014 with assets increasing by US$221.9 billion in 2017 on the back of strong performance-based gains and investor inflows. Final asset figures for 2017 saw investor inflows of US$114.6 billion of new allocations accounting for almost 52% of the total hedge fund asset growth recorded during the year while performance-driven gains of US$107.3 billion were recorded – the highest since 2010. As of December 2018 year-to-date, performance-based losses of US$58.9 billion were recorded following steep performance-based losses totalling US$44.2 billion and US$42.5 billion in February and October respectively – the highest monthly performance based losses since October 2008, while investor outflows stood at US$51.6 billion over the same period.

Table 1: Performance-based changes in assets and asset flows in December 2018

	Assets at start	Net growth (performance)	Net flows	Assets at end	% change in assets
Hedge funds	2359.7	(11.3)	(12.2)	2336.2	(1.00%)
By geographic mandate					
Asia ex-Japan	170.2	(0.9)	(0.7)	168.7	(0.92%)
Japan	17.9	(0.0)	(0.1)	17.7	(0.70%)
Europe	513.8	(1.5)	(2.8)	509.5	(0.83%)
Latin America	63.3	0.0	(0.5)	62.8	(0.76%)
North America	1594.5	(8.9)	(8.1)	1577.5	(1.07%)
By strategic mandate					
Arbitrage	163.0	(0.2)	(0.5)	162.4	(0.39%)
CTA/managed futures	232.4	(1.0)	(2.1)	229.4	(1.32%)
Distressed debt	56.9	(0.1)	(0.0)	56.7	(0.25%)
Event driven	226.7	(0.7)	(0.6)	225.4	(0.58%)
Fixed income	176.7	0.4	(3.8)	173.3	(1.94%)
Long/short equities	839.5	(18.0)	(3.5)	817.9	(2.57%)
Macro	165.7	1.1	1.0	167.8	1.29%
Multi-strategy	351.8	7.4	(6.2)	353.0	0.33%
Relative value	68.0	0.1	0.9	69.1	1.52%
Others	79.0	(0.3)	2.6	81.4	2.93%
By fund size (US$ millions)					
≤20	20.4	(0.0)	0.0	20.3	(0.09%)
>20-≤50	43.1	(0.1)	(0.1)	42.9	(0.48%)
>50-≤100	55.5	(0.2)	0.1	55.4	(0.13%)
>100-≤250	244.7	(0.6)	(1.1)	243.0	(0.70%)
>250-≤500	337.3	(0.6)	(0.8)	335.9	(0.40%)
>500-≤1000	481.2	(0.8)	(1.9)	478.6	(0.54%)
>1000	1177.5	(9.0)	(8.5)	1160.0	(1.49%)

Note: All figures are in US$ billion, and rounded off to 1 decimal place

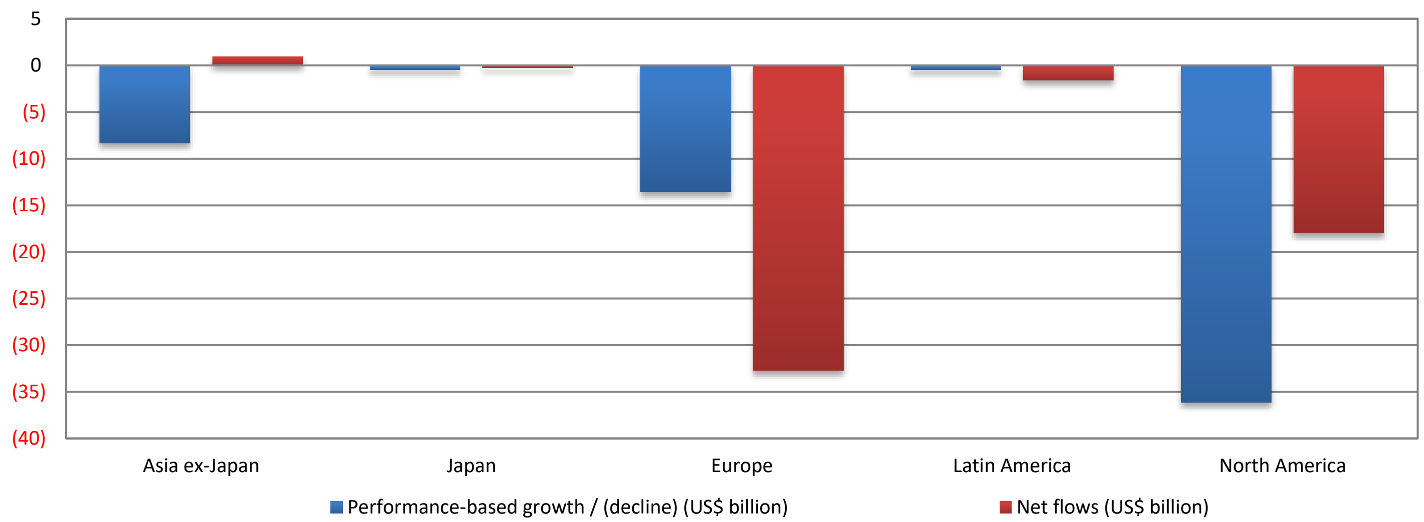
Source: Eurekahedge

North American funds recorded net asset outflows of US$8.1 billion while posting performance-based losses of US$8.9 billion during the month of December. Net asset outflows to the region since the start of the year stood at US$36.1 billion, while managers have posted performance-based losses of US$18.0 billion. Total assets in North American hedge funds stood at US$1,577.5 billion as of end-2018.

European fund managers recorded net asset outflows of US$2.8 billion while registering performance-based losses of US$1.5 billion during the month. Total assets in European hedge funds stood at US$509.5 billion as of end-2018, below their January 2018 high of US$577.5 billion. On a year-to-date basis, European hedge fund managers have seen performance-driven losses of US$13.5 billion while net asset outflows stood at US$32.7 billion over the same period.

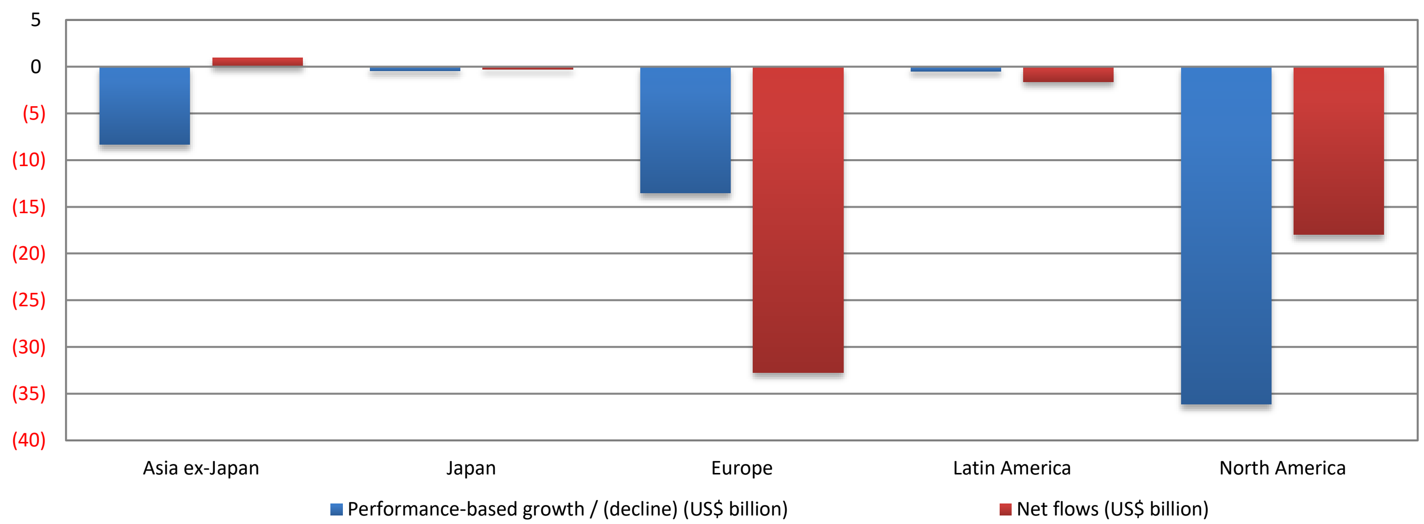
Asian funds posted performance-based losses of US$1.0 billion in December while investor inflows from Japan funds were flat over the same period. On a year-to-date basis Asia ex-Japan hedge funds have recorded US$1.0 billion in net capital allocations while the net outflows from Japan investing hedge funds stood at US$0.3 billion year-to-date. Overall, Asia Pacific hedge funds have recorded performance-based decline of US$8.8 billion throughout the year of 2018, a far-cry from the positive US$16.0 billion recorded over the same period in 2017.

Figure 2: December 2018 asset flow by geographic mandate



Source: Eurekahedge

Figure 3: 2018 asset flows by geographic mandate



Source: Eurekahedge

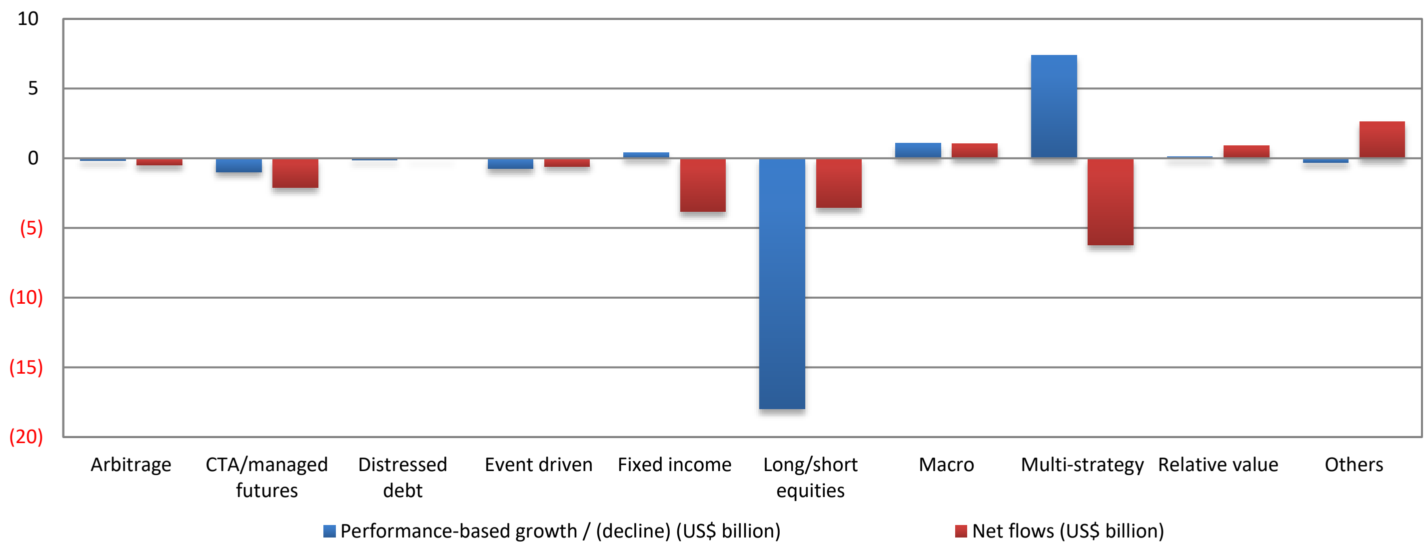
Figure 4 gives a breakdown of performance-based gains and net flows for the hedge fund industry by various strategies for the month of December. Net allocation activity was mixed bag across the board in December.

As of December 2018 year-to-date, macro hedge funds recorded the highest inflows of US$14.9 billion followed by event driven hedge funds with inflows of US$7.5 billion. On the other hand, multi-strategy hedge funds saw the steepest redemptions, with outflows totalling US$34.3 billion followed by CTA/managed futures mandate which saw redemptions of US$23.3 billion.

Performance figures in December were largely negative across the table, with multi-strategy and macro fund managers topping the chart, seeing positive performance growths of US$7.4 billion and US$1.1 billion respectively during the month. The long/short equities mandate posted performance-based losses of US$18.0 billion owing to massive sell-off in the global equity markets which sent major equity indices slumping throughout the month.

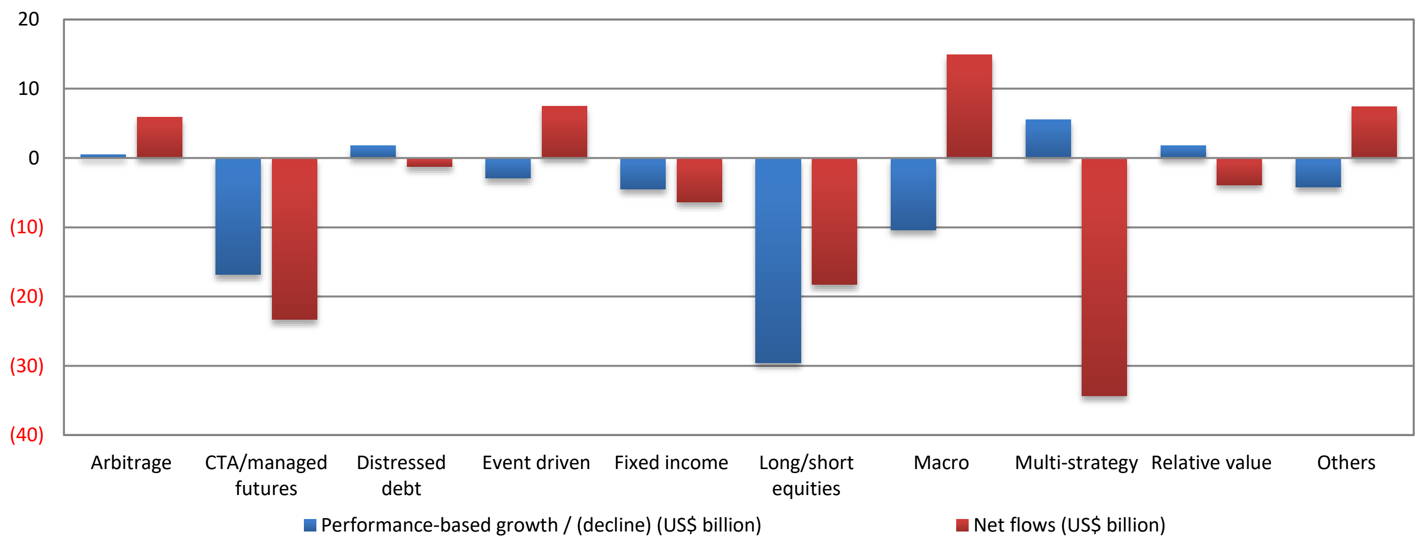
As of December 2018 year-to-date, multi-strategy managers reported US$5.5 billion of performance-based gains, the highest performance figures among all strategic mandates. On the other hand, long/short equities has posted the biggest performance-based losses totalling US$29.6 billion during the year, with the majority of the losses concentrated in October and December.

Figure 4: December 2018 asset flow by strategy employed



Source: Eurekahedge

Figure 5: 2018 asset flow by strategy employed



Source: Eurekahedge

Table 2: Performance-based changes in assets and asset flows 2018

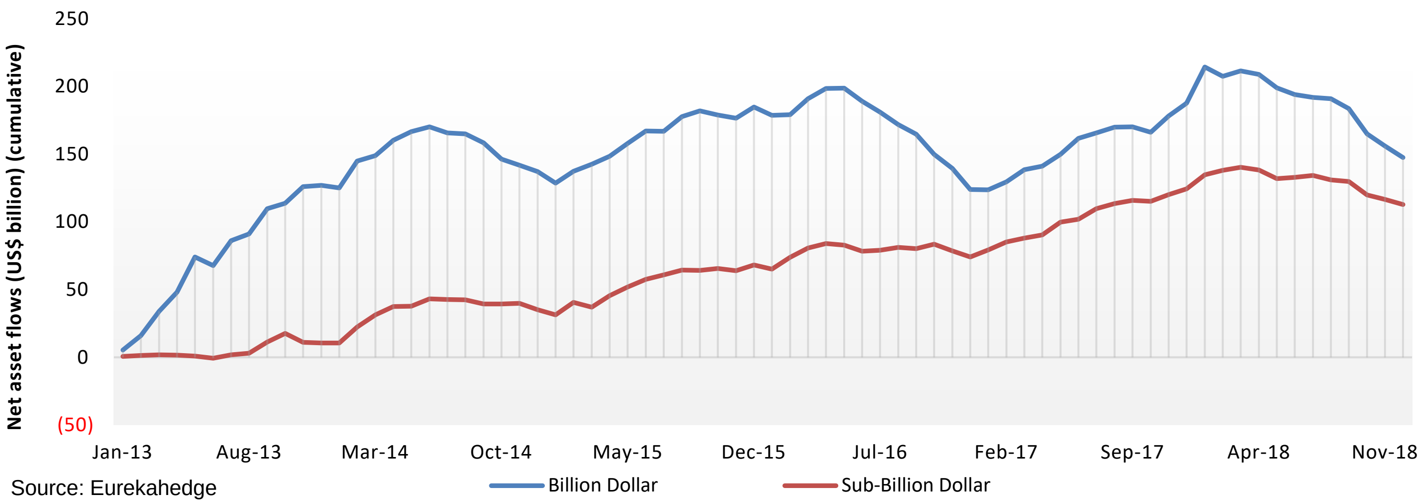
	Assets at start	Net growth (performance)	Net flows	Assets at end	% change in assets
Hedge funds	2446.7	(58.9)	(51.6)	2336.2	(4.52%)
By geographic mandate					
Asia ex-Japan	176.0	(8.3)	1.0	168.7	(4.18%)
Japan	18.5	(0.4)	(0.3)	17.7	(3.82%)
Europe	555.8	(13.5)	(32.7)	509.5	(8.32%)
Latin America	64.9	(0.5)	(1.6)	62.8	(3.22%)
North America	1631.6	(36.1)	(18.0)	1577.5	(3.32%)
By strategic mandate					
Arbitrage	156.0	0.5	5.9	162.4	4.13%
CTA/managed futures	269.5	(16.8)	(23.3)	229.4	(14.89%)
Distressed debt	56.2	1.8	(1.2)	56.7	0.98%
Event driven	220.8	(2.9)	7.5	225.4	2.05%
Fixed income	184.2	(4.5)	(6.4)	173.3	(5.91%)
Long/short equities	865.7	(29.6)	(18.3)	817.9	(5.52%)
Macro	163.3	(10.4)	14.9	167.8	2.78%
Multi-strategy	381.8	5.5	(34.3)	353.0	(7.54%)
Relative value	71.2	1.8	(3.9)	69.1	(2.98%)
Others	78.2	(4.2)	7.4	81.4	4.08%
By fund size (US$ millions)					
≤20	19.6	(0.2)	1.0	20.3	4.02%
>20-≤50	42.1	(0.6)	1.4	42.9	1.99%
>50-≤100	57.8	(1.1)	(1.3)	55.4	(4.07%)
>100-≤250	249.4	(3.8)	(2.6)	243.0	(2.56%)
>250-≤500	346.7	(5.1)	(5.7)	335.9	(3.11%)
>500-≤1000	491.6	(8.5)	(4.5)	478.6	(2.64%)
>1000	1239.7	(39.7)	(40.0)	1160.0	(6.42%)

Note: All figures are in US$ billion, and rounded off to 1 decimal place

Source: Eurekahedge

Figure 6 shows the cumulative investor flows since 2013, with 2H 2016 showing a pronounced decline in investor flows for billion dollar hedge funds. Since September 2016, billion dollar hedge funds have seen steep investor redemptions for seven consecutive months between September 2016 to December 2016, totalling US$75.0 billion. Sub-billion dollar hedge funds have also recorded redemptions over the same period, totalling US$8.8 billion between September 2016 and December 2016 but overall, managers within the sub-billion dollar bracket have seen a US$9.2 billion growth in assets for the year. Redemption pressure eased going into 2017, with billion dollar hedge funds seeing the most inflows of US$66.5 billion in 2017. Sub-billion dollar funds also realised an encouraging year, with US$48.1 billion of inflows recorded over the same period. As of December 2018 year-to-date, billion dollar hedge funds have seen redemptions totalling US$40.0 billion, while their sub-billion dollar counterparts have recorded net outflows totalling US$11.6 billion year-to-date.

Figure 6: Cumulative investor flows since 2013

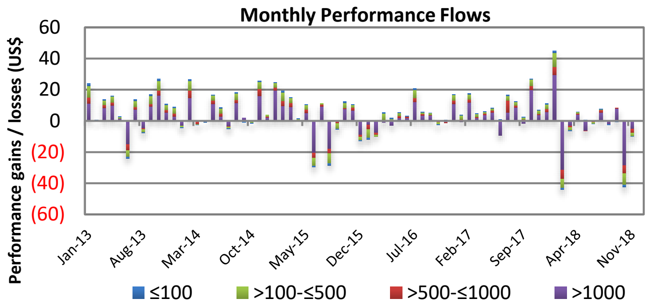


Source: Eurekahedge

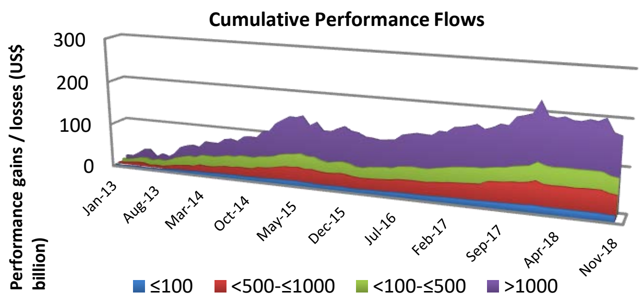
Figures 7 and 8 illustrate performance and net asset flows across the various fund size categories since January 2013. Over the 72 month period depicted below, the global hedge fund industry has raked in performance-based gains of US$299.6 billion. Billion dollar hedge funds account for over half of these gains as they have delivered cumulative performance-based gains of US$155.3 billion since the start of 2013. Funds managing assets in the US$100 million to US$500 million range have seen performance-based gains of US$80.9 billion which compares to US$50.0 billion in performance gains posted by funds in the US$500 million to US$1000 million range.

A similar picture emerges based on net asset flows, with the global hedge fund industry attracting US$260.5 billion since January 2013, out of which billion dollar hedge funds accounted for US$147.7 billion of these net capital allocations, while funds with assets under US$500 million collectively recorded net asset inflows of US$39.1 billion over this period. Given this preference on part of investors to allocate to larger billion dollar hedge funds, the success of small to medium sized hedge funds (less than US$500 million) will become increasingly dependent on the skill of the managers in growing them to a point where they can gather enough scale to attract large institutional investors.

Figure 7: Performance based gains/losses by fund size

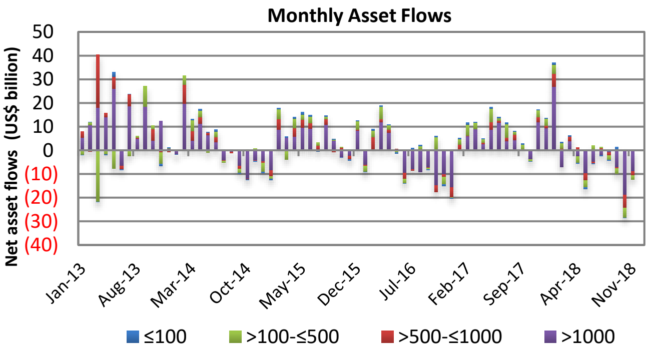


Source: Eurekahedge (US$ million)

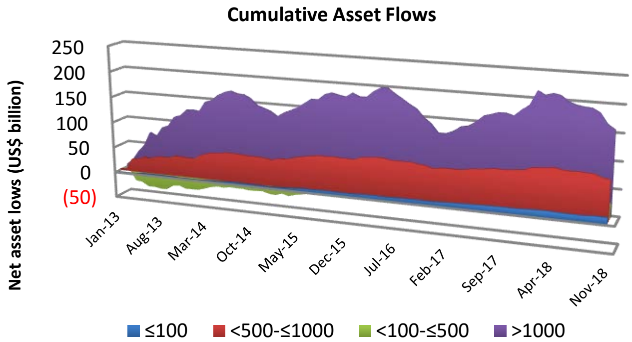


Source: Eurekahedge (US$ million)

Figure 8: Net asset flows by fund size



Source: Eurekahedge (US$ million)



Source: Eurekahedge (US$ million)

"Throughout the month, only 38.4% of the hedge fund managers tracked by the *Eurekahedge Hedge Fund Index* were able to remain in positive territory."

"North American hedge fund managers ended the month down 3.21%, as underlying equity markets recorded their worst month of 2018."

"Looking at year-to-date performance, preliminary numbers revealed that roughly 8.6% of the hedge fund managers tracked by Eurekahedge were still able to maintain double-digit returns throughout 2018."

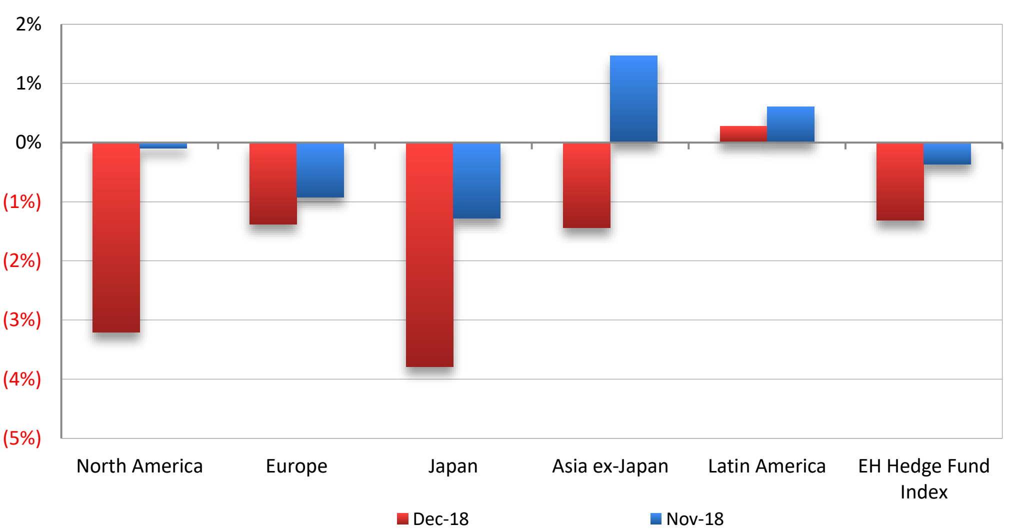
"Asian fund managers continued to lag behind their peers despite the improving progress of the US-China trade talk, with Asia ex-Japan and Japan mandates down 9.38% and 9.53% respectively over the year.

Introduction

The *Eurekahedge Hedge Fund Index* ended the month of December down 1.31%[1], dragging its year-to-date decline to 3.85% after five consecutive months of losses. Concerns over the US treasuries yield curve inversion and further Fed tightening in 2019 triggered a sell-off across the global equity markets, marking December as the worst month of 2018 for equity markets. Throughout the month, only 38.4% of hedge fund managers tracked by the *Eurekahedge Hedge Fund Index* were able to remain in the positive territory, while in comparison the global equity markets as represented by the MSCI AC World Index (Local) plummeted 7.61%. Less-dovish-than-expected Fed stance, combined with weakness in the tech sector over global growth slowdown continued to weigh on the US equity markets, and resulted in 9.18% and 8.66% losses for the S&P 500 index and the Dow respectively – the worst December performance since the Great Depression for the latter. On the other hand, uncertainties continued to loom over the European economies as Brexit negotiation remained inconclusive, despite the Italian government's success in striking a deal with the European Union over their budgetary planning. Looking at year-to-date performance, preliminary numbers revealed that roughly 8.6% of the hedge fund managers tracked by Eurekahedge were still able to maintain double-digit returns throughout 2018 despite all the challenges the industry has faced.

North American hedge fund managers ended the month down 3.21%, as the underlying equity markets recorded their worst month of 2018. The *Eurekahedge Japan Hedge Fund Index* slumped 3.79% during the month, underperforming their peers from the other Asian regions. In comparison, the Nikkei 225 index and the TOPIX were down 10.33% and 10.40% respectively in December.

Figure 1: December 2018 and November 2018 returns across regions

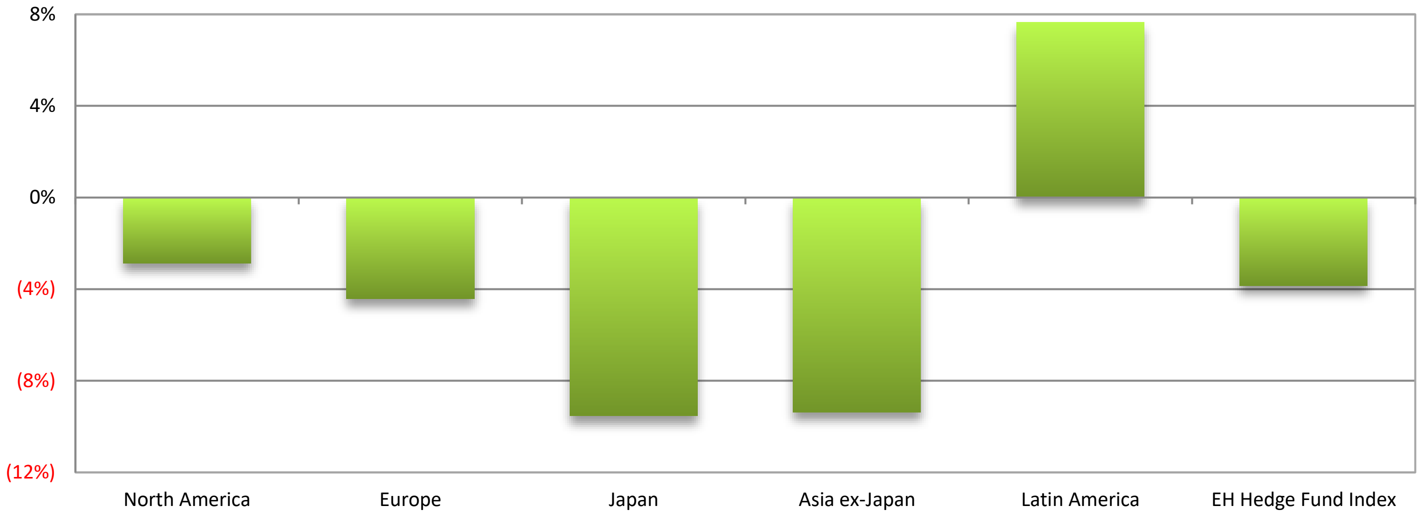


Source: Eurekahedge

On a year-to-date basis, North American fund managers were down 2.87%, as the losses they posted in October and December wiped out a significant portion of the gains made in preceding months. Latin American fund managers were up 7.66% year-to-date, owing to the underlying equity market performance which benefited from improving economic outlook and dwindling political concerns. Meanwhile, Asian fund managers continued to lag behind their peers focusing on other regions despite the improving progress of the US-China trade talk, with the *Eurekahedge Asia ex-Japan Hedge Fund Index* and the *Eurekahedge Japan Hedge Fund Index* down 9.38% and 9.53% respectively over the year.

[1] Based on 40.89% of funds which have reported December 2018 returns as at 11 January 2019.

Figure 2: 2018 year-to-date returns across regions



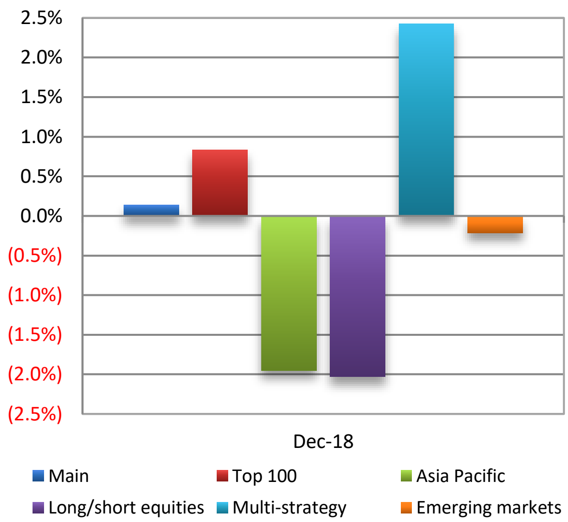
Source: Eurekahedge

Mizuho-Eurekahedge Asset Weighted Index

The asset-weighted *Mizuho-Eurekahedge Index - USD* ended December up 0.14%, bringing their 2018 year-to-date return to -3.58%. It should also be noted that the *Mizuho-Eurekahedge Index* is US dollar denominated, and during months of strong US dollar gains, the index results include the currency conversion loss for funds that are denominated in other currencies.

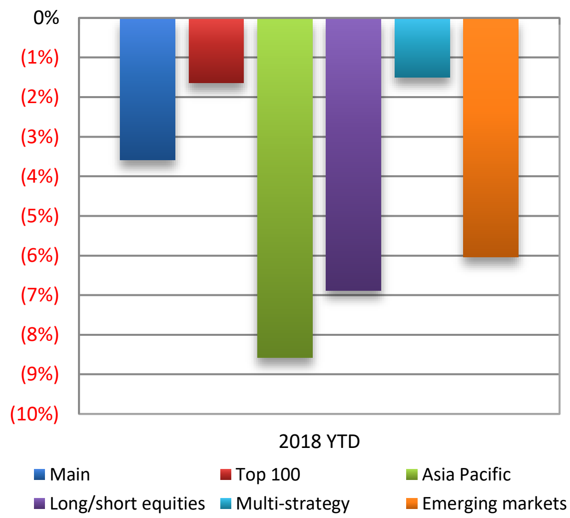
Returns were mixed among the *Mizuho-Eurekahedge indices*, with the *Mizuho-Eurekahedge Long Short Equities Index* losing 2.03% over the month, thanks to the massive sell-off in the global equity market as investors fled into less risky assets. On a year-to-date basis, all of the *Mizuho-Eurekahedge indices* remained in the red, with the Asia Pacific and long short equities fund managers posting the sharpest declines as they ended the year of 2018 down 8.58% and 6.89% respectively.

Figure 3a: *Mizuho-Eurekahedge Indices* December 2018 returns



Source: Eurekahedge

Figure 3b: *Mizuho-Eurekahedge Indices* 2018 year-to-date returns



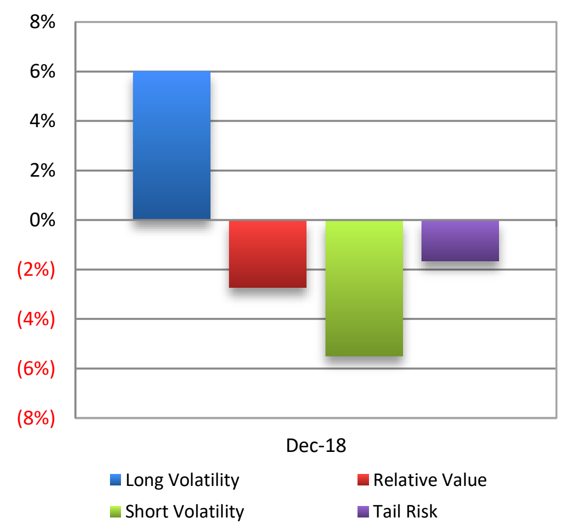
Source: Eurekahedge

CBOE Eurekahedge Volatility Indexes

The *CBOE Eurekahedge Volatility Indexes* comprise four equally-weighted volatility indices – long volatility, short volatility, relative value and tail risk. The *CBOE Eurekahedge Long Volatility Index* is designed to track the performance of underlying hedge fund managers who take a net long view on implied volatility with a goal of positive absolute return. In contrast, the *CBOE Eurekahedge Short Volatility Index* tracks the performance of underlying hedge fund managers who take a net short view on implied volatility with a goal of positive absolute return. This strategy often involves the selling of options to take advantage of the discrepancies in current implied volatility versus expectations of subsequent implied or realised volatility. The *CBOE Eurekahedge Relative Value Volatility Index* on the other hand measures the performance of underlying hedge fund managers that trade relative value or opportunistic volatility strategies. Managers utilising this strategy can pursue long, short or neutral views on volatility with a goal of positive absolute return. Meanwhile, the *CBOE Eurekahedge Tail Risk Index* tracks the performance of underlying hedge fund managers that specifically seek to achieve capital appreciation during periods of extreme market stress.

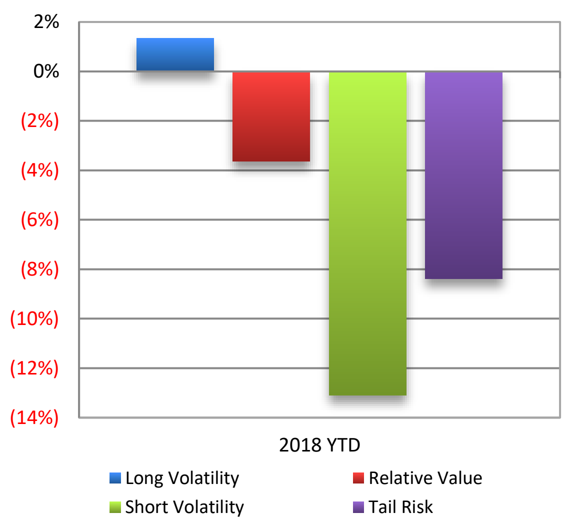
The *CBOE Eurekahedge Long Volatility Hedge Fund Index* ended the month up 6.00%, as the market volatility heightened throughout the month thanks to the equity market sell-off over the yield curve inversion and slowing economic growth. The CBOE VIX index peaked at 36.07 during the Christmas Eve following the US President Donald Trump's mention of his desire to fire the Fed chair Jerome Powell over their differing views on Fed policies. On the flip side, fund managers utilising short volatility strategies ended the month down 5.49%. On a year-to-date basis, except for long volatility managers all of the volatility strategies remained in the red, with short volatility fund managers down 13.10%. The *CBOE Eurekahedge Long Volatility Hedge Fund Index* was up 1.33% in 2018 as the gain made in December outweighed the losses accumulated over the rest of the year.

Figure 4a: *CBOE Eurekahedge Volatility Indexes* December 2018 returns



Source: Eurekahedge

Figure 4b: *CBOE Eurekahedge Volatility Indexes* 2018 year-to-date returns

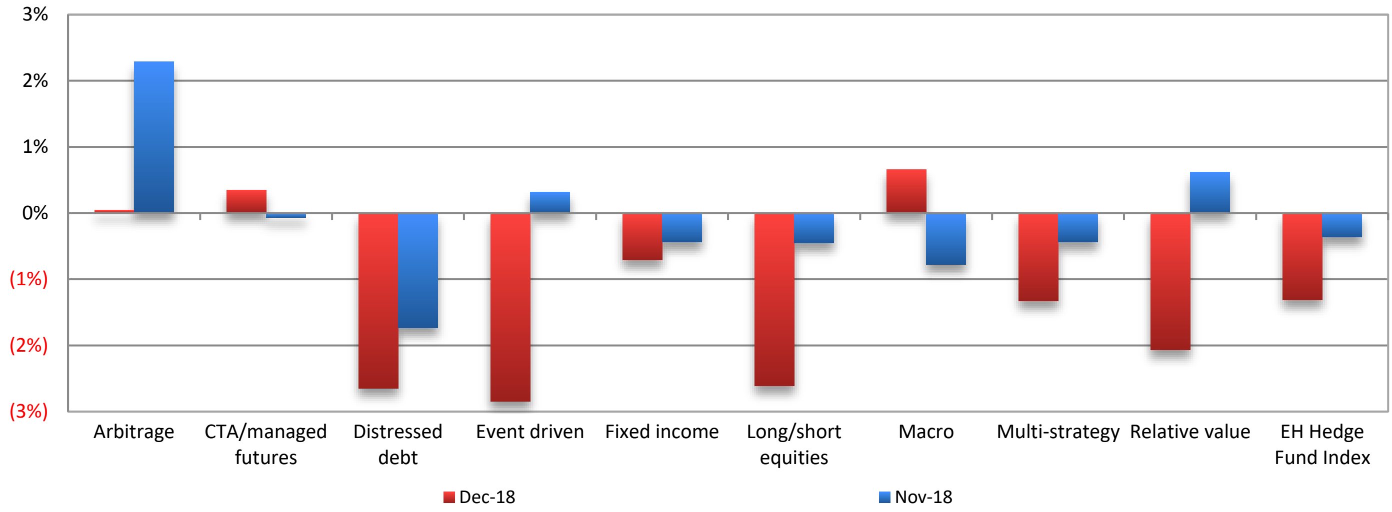


Source: Eurekahedge

Strategy Performance

Most of the strategic mandates ended the month in the red. Macro, CTA/managed futures and arbitrage hedge fund managers managed to gain 0.66%, 0.35%, and 0.04% respectively throughout the month, while on the flip side event-driven and long short equities hedge fund managers were down 2.85% and 2.61% respectively over the same period.

Figure 5: December 2018 and November 2018 returns across strategies



Source: Eurekahedge

Looking at year-to-date returns over the course of 2018, distressed debt fund managers' robust performance since the start of the year solidified their position as the best performing strategic mandate in 2018 with their 2.37% year-to-date return. Arbitrage fund managers followed behind with their 0.46% return over the same period. Fund managers utilising long short equities strategy fell to the last place, as they bore the brunt of the equity market sell-offs in October and December. The *Eurekahedge Long Short Equities Hedge Fund Index* ended the year down 6.27%.

Figure 6: 2018 year-to-date returns across strategies

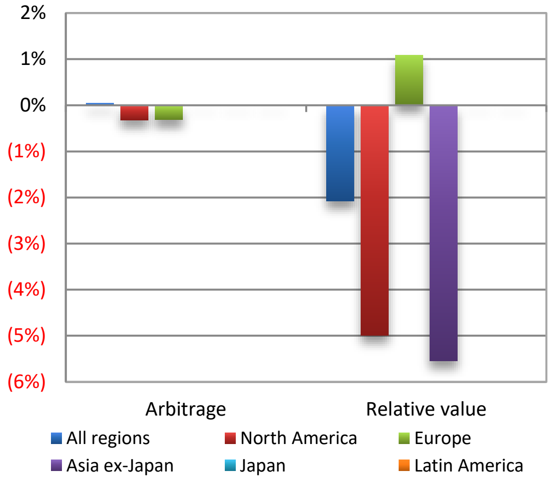
Source: Eurekahedge

Arbitrage and relative value

Arbitrage hedge fund managers ended the month flat, with the *Eurekahedge Arbitrage Hedge Fund Index* gaining 0.04%, bringing its year-to-date return up to 0.46%. The underlying North American mandate was down 0.32% in December. On a year-to-date basis, North American arbitrage funds were up 2.90%.

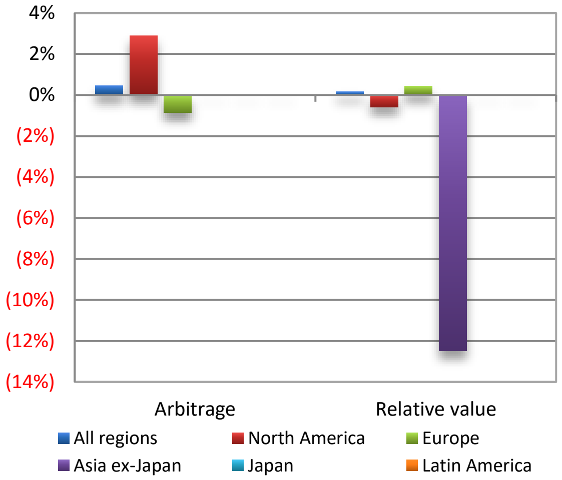
Hedge fund managers utilising relative value strategy were down 2.07% during the month, wiping a significant portion of the gains they've made over the preceding months. Looking at yearly returns, relative value hedge fund managers placed third among the major strategic mandates in the Eurekahedge database, losing only to distressed debt and arbitrage fund managers.

Figure 7a: Arbitrage and relative value December 2018 returns



Source: Eurekahedge

Figure 7b: Arbitrage and relative value 2018 year-to-date returns



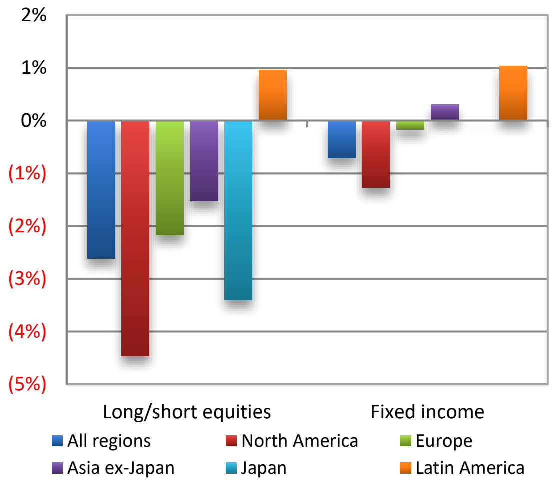
Source: Eurekahedge

Long/short equities and fixed income

The *Eurekahedge Long Short Equities Hedge Fund Index* ended the month down 2.61%, inflating their year-to-date losses to 6.27% as a result of the sharp decline in equity prices in December. Barely a quarter of the funds constituting the mandate ended the month with a positive return, reminiscent of how the mandate fared back in October. Most of the underlying regions were in the red, except Latin America, which was up 0.96%, thanks to the improving economic outlook in the region.

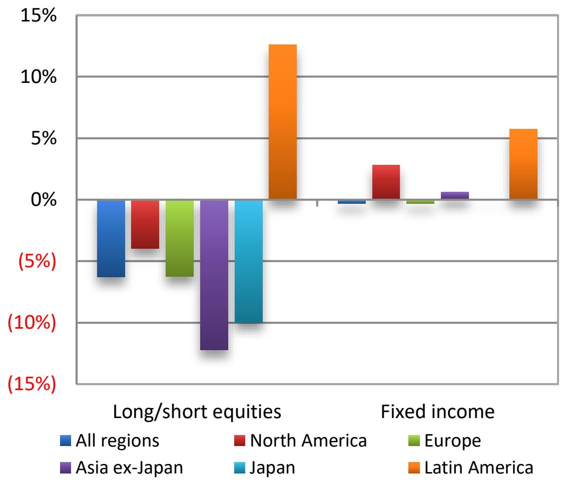
The *Eurekahedge Fixed Income Hedge Fund Index* declined 0.71% during the month, bringing its year-to-date loss to 0.31%, as gains made from long positions in sovereign bonds were counterbalanced by weaknesses in high-yield bonds throughout the month – a recurring theme which has persisted through most of the latter half of 2018. On a year-to-date basis, North American fixed income managers were up 2.83%, trailing behind their Latin American peers who returned 5.75% over the entire year of 2018.

Figure 8a: Long/short equities and fixed income December 2018 returns



Source: Eurekahedge

Figure 8b: Long/short equities and fixed income 2018 year-to-date returns



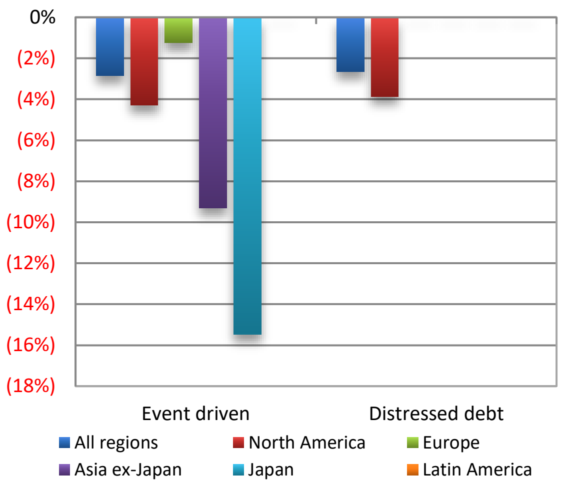
Source: Eurekahedge

Event driven and distressed debt

The *Eurekahedge Event Driven Hedge Fund Index* ended the month of December down 2.85%, with all of the underlying regional mandates in the red. The S&P Merger Arbitrage Index gained 0.39% in December, indicating a recovery in the M&A sector activities compared to the preceding months. Event driven funds managers focusing on Asia ex-Japan and Japan recorded sharp losses of 9.31% and 15.46% respectively in December. Over the year, the *Eurekahedge Event Driven Hedge Fund Index* was down 2.99%.

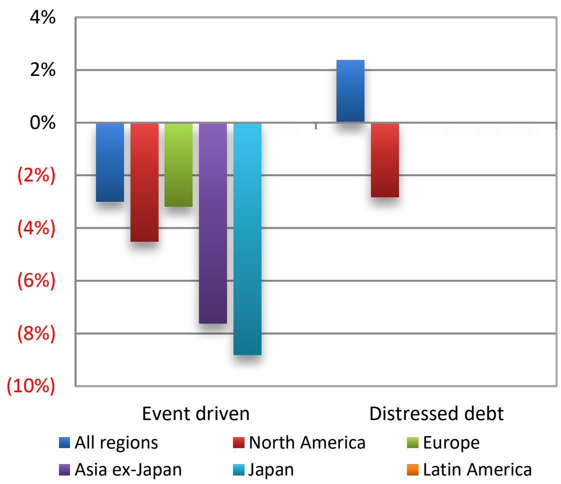
The *Eurekahedge Distressed Debt Hedge Fund Index* was down 2.65% in December, with the underlying North American distressed debt managers ending the month down 3.86%. The majority of the managers comprising the index posted losses in December owing to the weak high-yield performance. On a year-to-date basis, distressed debt fund managers remained as the top among strategic mandates in the Eurekahedge database with their 2.37% return. Distressed debt fund managers focusing in North America were down 2.82% year-to-date.

Figure 9a: Event driven and distressed debt December 2018 returns



Source: Eurekahedge

Figure 9b: Event driven and distressed debt 2018 year-to-date returns



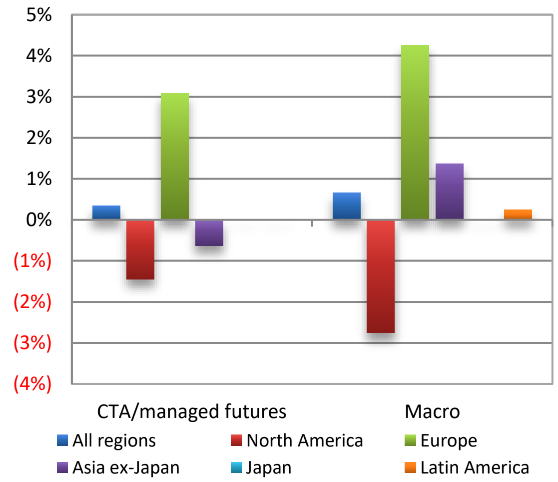
Source: Eurekahedge

CTA/managed futures and macro

CTA/managed futures hedge funds gained 0.35% in December, despite the plummeting oil prices and overall weakness within the energy sector throughout the month, contrary to how the energy sector had been a major performance driver for them over the third quarter of the year. On a year-to-date basis, the *Eurekahedge CTA/Managed Futures Hedge Fund Index* was down 3.70%, falling behind the other major strategic mandates in the Eurekahedge database.

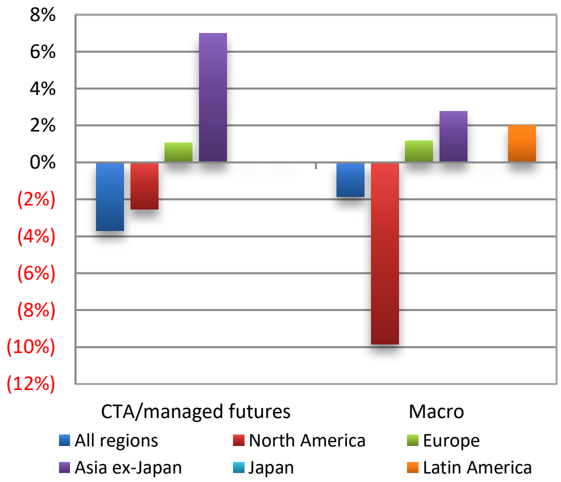
The *Eurekahedge Macro Hedge Fund Index* was up 0.66% in December with most of the underlying regional mandates posting positive returns. European macro funds gained 4.26% over the month, while on the other end, North American macro funds lost 2.75%. On a year-to-date basis, macro fund managers were still down 1.87%.

Figure 10a: CTA/managed futures and macro December 2018 returns



Source: Eurekahedge

Figure 10b: CTA/managed futures and macro 2018 year-to-date returns



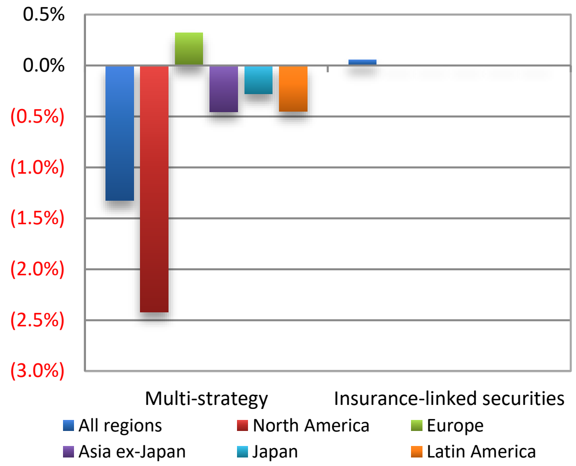
Source: Eurekahedge

Multi-strategy and insurance-linked securities (ILS)

The *Eurekahedge Multi-Strategy Hedge Fund Index* was down 1.33% during the month, with most underlying regions posting losses, except for European multi-strategy funds which gained 0.32%. Volatility in the investment grade and high-yield bond markets, combined with weakness in preferred shares contributed to losses for some multi-strategy fund managers during the month. The *Eurekahedge Multi-Strategy Hedge Fund Index* lost 3.35% throughout 2018, with most underlying regional mandates in the red.

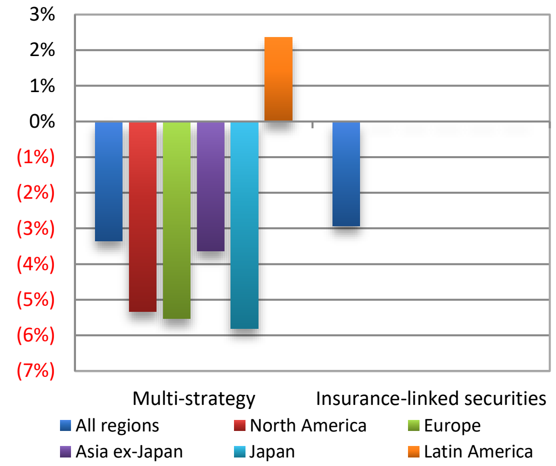
The *Eurekahedge ILS Advisers Index* gained 0.06% throughout December, bringing its year-to-date loss to 2.93%, firmly placing 2018 as the second worst year for ILS hedge funds, after 2017. Strong primary cat bond market activities and healthy investor inflows over the first three quarters of 2018 supported ILS fund managers as they recovered from overwhelming losses incurred during the Atlantic hurricane season of 2017. However, as the catastrophic losses incurred by Hurricane Florence and Hurricane Michael came to light, ILS funds with exposure towards the region were adversely affected. The damages caused by the two Category Four hurricanes were expected to be around US$17.9 billion and US$14.6 billion respectively, significantly lower than the estimated losses caused by the 2017 Hurricane Irma (US$64.8 billion) and Hurricane Maria (US$91.6 billion).

Figure 11a: Multi-strategy and insurance-linked securities December 2018 returns



Source: Eurekahedge

Figure 11b: Multi-strategy and insurance-linked securities 2018 year-to-date returns

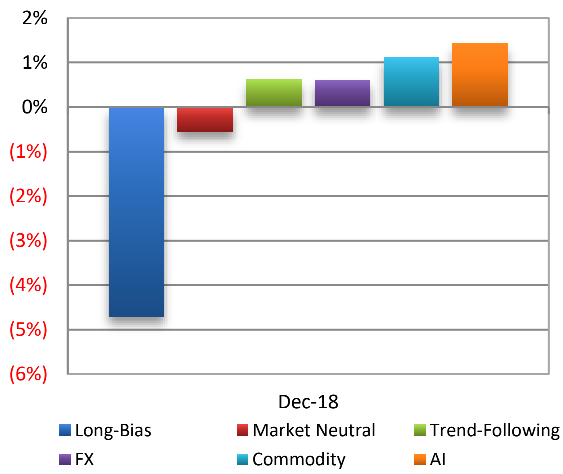


Source: Eurekahedge

Sub-strategies

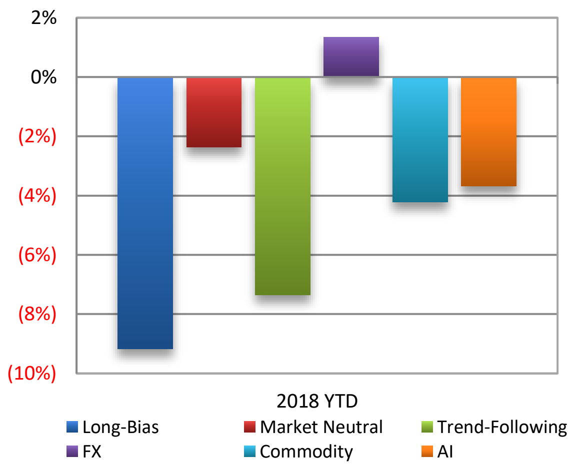
Performance was a mixed bag across the secondary strategic mandates in December, with equity long-bias fund managers posting the steepest losses (-4.71%), as one would expect based on the global equity market movement during the month. Fund managers utilising AI/machine led the pack, with the *Eurekahedge AI Hedge Fund Index* up 1.43%. On a year-to-date basis, FX fund managers ended as the only sub-strategy to post positive return, returning 1.34% over the entire year of 2018, while the other sub-strategies were firmly in the red as of December 2018 year-to-date.

Figure 12a: Sub-strategies December 2018 returns



Source: Eurekahedge

Figure 12b: Sub-strategies 2018 year-to-date returns



Source: Eurekahedge

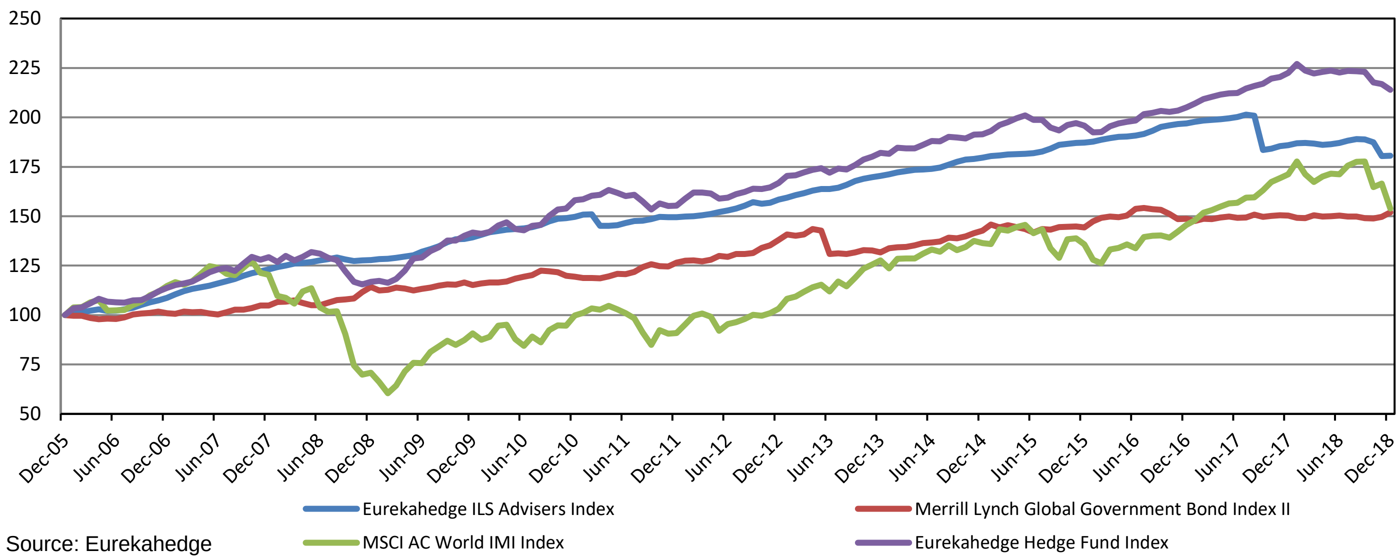
Robust investor allocations toward ILS funds despite weak 2018

The *Eurekahedge ILS Advisers Index* ended 2018 down 2.93%, recording its second consecutive year of losses after 2017, during which the index slumped 5.60%. The catastrophic losses incurred by Hurricane Florence in September and Hurricane Michael in October weighed on the ILS fund managers' returns throughout the fourth quarter of the year. While the 144 deaths and estimated US$33.3 billion damage caused by the 2018 Atlantic hurricane season were nowhere near the damage incurred by the 2017 Atlantic hurricane season (3,361 deaths and US$282.3 billion), they were enough to drag the year-to-date return of the *Eurekahedge ILS Advisers Index* into the negative territory. The index declined 3.68% in November alone, which turned out to be the worst month of the year for ILS fund managers. Despite the negative year-to-date return posted by the index, performance remained rather dispersed, with the majority of the ILS fund managers tracked by Eurekahedge posting meagre yet positive year-to-date returns, in contrast to their peers who suffered significant losses due to high exposure towards the US wind events.

Insurance-linked securities (ILS) hedge funds trade in instruments whose values depend on insurance loss events. The majority of these instruments are reinsurance policies that assume the risk taken by insurance companies, which in turn assume the risk taken by individuals or institutions. A reinsurance policy allows a second insurer to take a share in the potential profit and loss from the underlying insurance policy. The ILS market covers the reinsurance of various types of risk, including life insurance risk, catastrophic risk and debt risk. Life reinsurance ILS protects the insurance companies against extreme events that cause the deaths of a massive number of people, such as terrorist attacks, epidemic, or natural disasters. On the other hand, debt reinsurance ILS covers the potential losses caused by debt defaults.

Figure 1 below compares the performance of the *Eurekahedge ILS Advisers Index* against the wider hedge fund industry represented by the *Eurekahedge Hedge Fund Index*, as well as the global equity and bond markets represented by the MSCI AC World IMI Index and the Merrill Lynch Global Government Bond Index II respectively.

Figure 1: The *Eurekahedge ILS Advisers Index* performance since inception



Source: Eurekahedge

As observed in Figure 1, ILS hedge funds managed to outperform both the global equity and bond indices over the period starting in December 2015, by virtue of their immunity against volatile market situations such as the 2008 subprime mortgage crisis and the European debt crisis several years after that. The *Eurekahedge ILS Advisers Index* has generated 4.65% annualised return since its inception, trailing behind the *Eurekahedge Hedge Fund Index* which returned 6.03% per annum over the same period, while maintaining much lower correlation against the equity and bond markets.

Table 1: Performance in numbers – Eurekahedge ILS Advisers Index vs. global equity and bond markets

	Eurekahedge ILS Advisers Index	Merrill Lynch Global Government Bond Index II	MSCI AC World IMI Index	Eurekahedge Hedge Fund Index
2010	7.52%	3.64%	9.99%	11.55%
2011	(0.14%)	6.09%	(9.02%)	(1.72%)
2012	5.93%	9.08%	13.56%	7.39%
2013	7.61%	(4.67%)	23.80%	9.14%
2014	5.42%	8.37%	6.82%	5.15%
2015	4.24%	1.22%	(0.52%)	2.27%
2016	5.19%	2.96%	7.33%	4.78%
2017	(5.60%)	1.16%	17.51%	8.51%
2018	(2.93%)	0.99%	(10.10%)	(3.85%)
3 year annualised returns	(1.22%)	1.70%	4.28%	3.02%
3 year annualised volatility	5.67%	2.88%	9.77%	3.18%
3 year Sharpe ratio (RFR = 2%)	(0.57)	(0.10)	0.23	0.32
5 year annualised returns	1.16%	2.90%	3.80%	3.29%
5 year annualised volatility	4.48%	2.89%	9.92%	3.14%
5 year Sharpe ratio (RFR = 2%)	(0.19)	0.31	0.18	0.41
10 year annualised returns	3.52%	2.90%	8.06%	6.24%
10 year annualised volatility	3.65%	4.03%	12.52%	4.18%
10 year Sharpe ratio (RFR = 2%)	0.42	0.22	0.48	1.01
10 year maximum drawdown	(10.41%)	(8.88%)	(18.81%)	(6.05%)

Source: Eurekahedge

Table 1 provides the detailed risk return statistics of the four indices shown in the figure above. Key takeaways include:

1. The *Eurekahedge ILS Advisers Index* was down 2.93% in 2018 and 5.60% in 2017, as ILS fund managers struggled in the face of the Atlantic hurricane seasons during the years and ended their streak of five consecutive positive years which started in 2012. Looking at 2018 returns, ILS fund managers trailed behind government bonds, which returned 0.99% during the year, while outperforming global equity markets which slumped into the red over concerns regarding the global trade tension, Fed rate hikes and slowing global economic growth.

2. Looking over the last three and five year periods, ILS fund managers failed to generate competitive annualised returns compared to their hedge fund peers utilising other strategies. This is largely caused by the significant losses they suffered during the two recent Atlantic hurricane seasons, which wiped out nearly two years' worth of gains and sent the index value below its February 2015 level.

3. Over a longer period of 10 years, the *Eurekahedge ILS Advisers Index* generated a Sharpe ratio of 0.42, trailing behind the 1.01 and 0.48 Sharpe ratios posted by the *Eurekahedge Hedge Fund Index* and the MSCI AC World IMI Index respectively, but outperforming the Merrill Lynch Global Government Index II, which posted a Sharpe ratio of 0.22.

Table 2 provides the correlation values between the performance of ILS fund managers against the global equity and government bond markets, as well as their hedge fund peers. As seen in Table 2, the *Eurekahedge ILS Advisers Index* is very weakly correlated to the three other indices, supporting the idea that ILS investments are able to provide uncorrelated returns for an investor's portfolio.

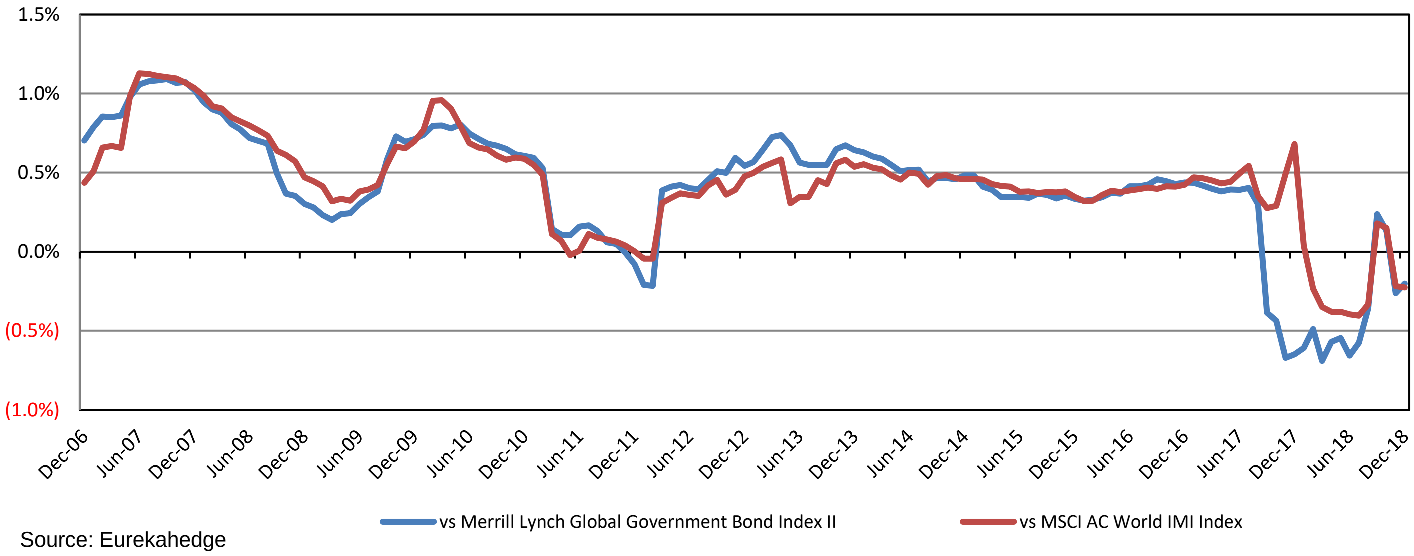
Table 2: Correlation matrix

	Eurekahedge ILS Advisers Index	Merrill Lynch Global Government Bond Index II	MSCI AC World IMI Index	Eurekahedge Hedge Fund Index
Eurekahedge ILS Advisers Index	1			
Merrill Lynch Global Government Bond Index II	0.08	1		
MSCI AC World IMI Index	0.10	(0.17)	1	
Eurekahedge Hedge Fund Index	0.19	(0.14)	0.85	1

Source: Eurekahedge

Figure 2 provides the 12-months rolling alpha of the *Eurekahedge ILS Advisers Index* against both the Merrill Lynch Global Government Bond Index II and the MSCI AC World IMI Index, assuming a 0% risk-free rate. As seen below, ILS fund managers are generally capable of generating positive alpha against the bond and equity indices, with the exception of periods in which major catastrophes occurred, such as the 2011 earthquake and tsunami in Japan, and the 2017-2018 hurricanes in the US.

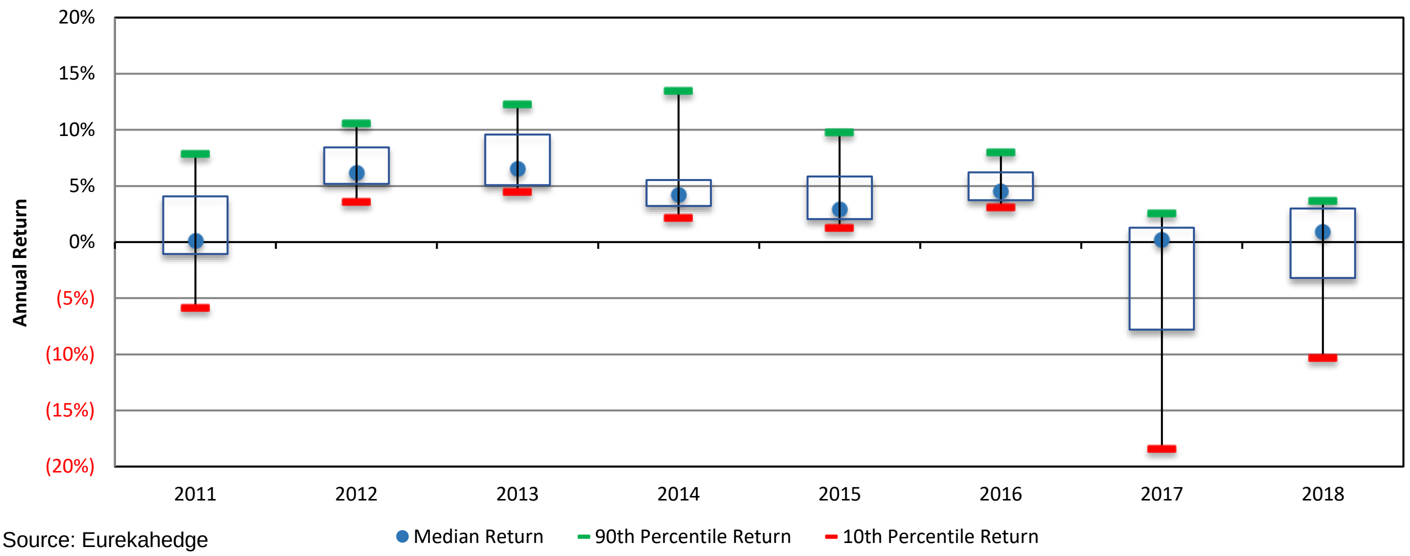
Figure 2: 12-months rolling alpha of ILS hedge funds vs. underlying bond and equity markets (RFR = 0%)



Source: Eurekahedge

Figure 3 provides the performance distribution of all ILS hedge funds in the Eurekahedge database, including funds with life risk exposure. Despite the devastating blows dealt by the Atlantic hurricane seasons over the recent years, the median return of ILS hedge funds in 2017 and 2018 remained positive at 0.19% and 0.95% respectively. Looking at the extremes, the 90^{th} percentile returns of the ILS hedge funds were 2.59% in 2017 and 3.69% in 2018, while the 10^{th} percentile returns were -18.40% in 2017 and -10.29% in 2018.

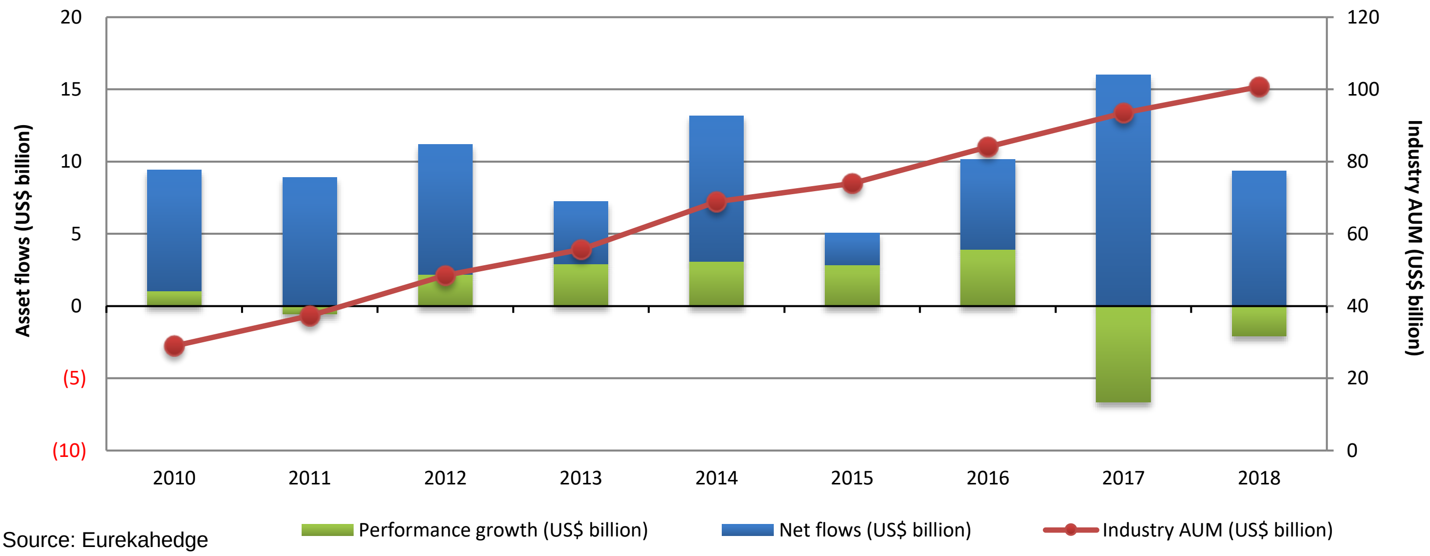
Figure 3: Performance distribution of ILS hedge funds



Source: Eurekahedge

The last part of this strategy profile report takes a look at the ILS hedge fund industry size and asset flows over the last few years. The ILS hedge fund industry has grown from an estimated US$29.0 billion of AUM back in 2010 to US$100.7 billion by the end of 2018. Despite the performance-based losses suffered by ILS fund managers in 2017 and 2018, the industry saw strong investor inflows which more than compensated for the losses. ILS fund managers collectively recorded US$2.1 billion of performance-based losses and US$9.4 billion of investor allocations throughout 2018.

Figure 4: Annual asset flows and AUM of the ILS hedge fund industry



Source: Eurekahedge

"The *Eurekahedge Hedge Fund Index* was down 2.53% as of November 2018 year-to-date, slightly ahead of the underlying equity markets as represented by the MSCI AC World Index which slumped 2.72% over the same period."

"The United States maintained its position as the top head office location within the industry, with a population share of 57.3% as of November 2018."

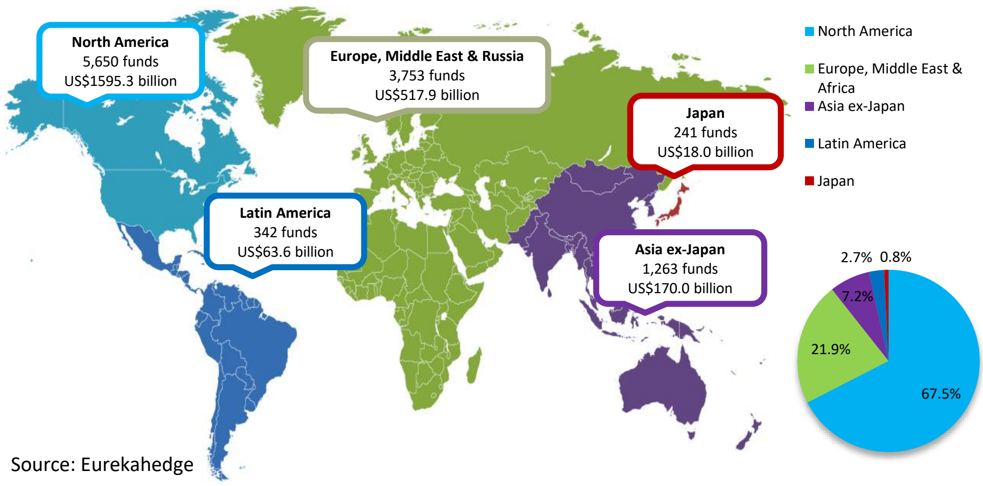
"Three consecutive quarters of strong investor redemptions totalling US$78.9 billion were recorded since the second quarter of the year."

"Long/short equities and event driven mandates which posted double-digit returns in 2017 were down 3.69% and 0.11% respectively year-to-date."

Introduction

Hedge fund managers were on track to record their worst year since the 2008 global financial crisis as the combined onslaught of the global trade tension, Fed rate hikes, and various political concerns weighed on their returns. The *Eurekahedge Hedge Fund Index* was down 2.53% as of November 2018 year-to-date, slightly ahead of the underlying equity markets as represented by the MSCI AC World Index which slumped 2.72% over the same period. The industry kicked off the year with strong performance throughout January 2018, continuing the trend observed by the hedge fund industry in 2017. However, market uncertainty arose when the Trump administration imposed higher tariffs against imported Chinese goods due to their alleged unfair trade practices. The move prompted retaliations from the Chinese government, leading to the escalation of the trade war which will dominate the news headlines throughout the year. Concurrently, the Fed hiked their funds rate four times in 2018 in anticipation of rising inflation, owing to the robust growth of the US economy over the recent years. As a result, the majority of the emerging markets suffered currency devaluations which caused inflationary pressure on their economies throughout the year. The rising oil stockpile in the United States and concerns over the global economic slowdown caused oil prices to plummet, triggering major losses within the energy sector throughout the fourth quarter of the year.

Figure 1: Global hedge fund industry map

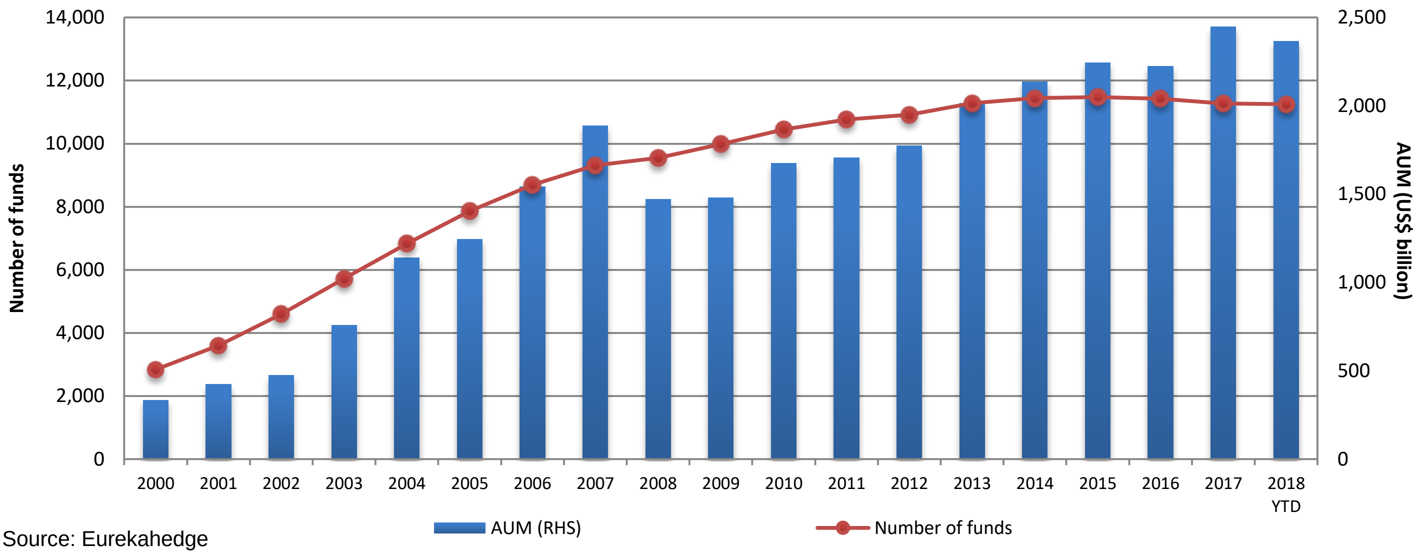


Source: Eurekahedge

Looking at North America, the introduced tax cut policies in the United States contributed to their economy's robust performance as corporate earnings beat analyst estimates throughout the second and third quarters of the year, resulting in a new all-time high of the S&P 500 index in late September. However, the hawkish tone exhibited by the Fed chair Jerome Powell during a monetary policy meeting in late September unnerved investors who were already on the edge of their seats thanks to the US-China trade war, and triggered a sell-off in the equity markets around the globe. The falling equity prices in October caused roughly 80% of the long short equity hedge fund managers tracked by Eurekahedge to end the month in the red. Over in Asia, the international trade friction contributed to the slowing down of the Chinese economy as seen in their declining macroeconomic data, in particular the Purchasing Manager Index indicator. Meanwhile, in Europe, the Italy budget crisis and Brexit uncertainties have continued to weigh on the region's equity market performance, and the latter remains to be one of the biggest risks for the region as the United Kingdom is scheduled to leave the European Union in March 2019.

The industry's total assets under management (AUM) declined by US$82.0 billion during the year, owing to the distress in the global financial market. Three consecutive quarters of strong investor redemptions totalling US$78.9 billion were recorded since the second quarter of 2018. Looking at performance-based losses, the industry saw US$47.7 billion of assets wiped out in the fourth quarter alone.

Figure 2: Industry growth over the years



Source: Eurekahedge

Over the past 10 years, the global hedge fund industry witnessed varying market conditions with periods of growth, stress and rebound. In the years prior to the 2008 financial crisis, optimism in hedge funds was seen by its accelerated growth both in the industry AUM and the number of funds. In 2006, the global hedge fund industry was managed by 8,694 funds with total assets worth US$1.54 trillion. By mid-2008, the industry's asset base grew over US$400 billion to breach the US$1.95 trillion mark, much of this is attributed to strong investor inflows. Over 2007 and mid-2008 alone, investor inflows stood at US$239.9 billion while performance-based gains stood at US$168.4 billion. The financial crisis of 2008 affected the industry's strength with the global hedge fund industry registering losses of US$413.6 billion at the end of 2008, with redemptions accounting for over half of the losses. Investor redemptions continued in 2009 totalling over US$122.9 billion despite excellent performance-based gains of US$131.5 billion during the year.

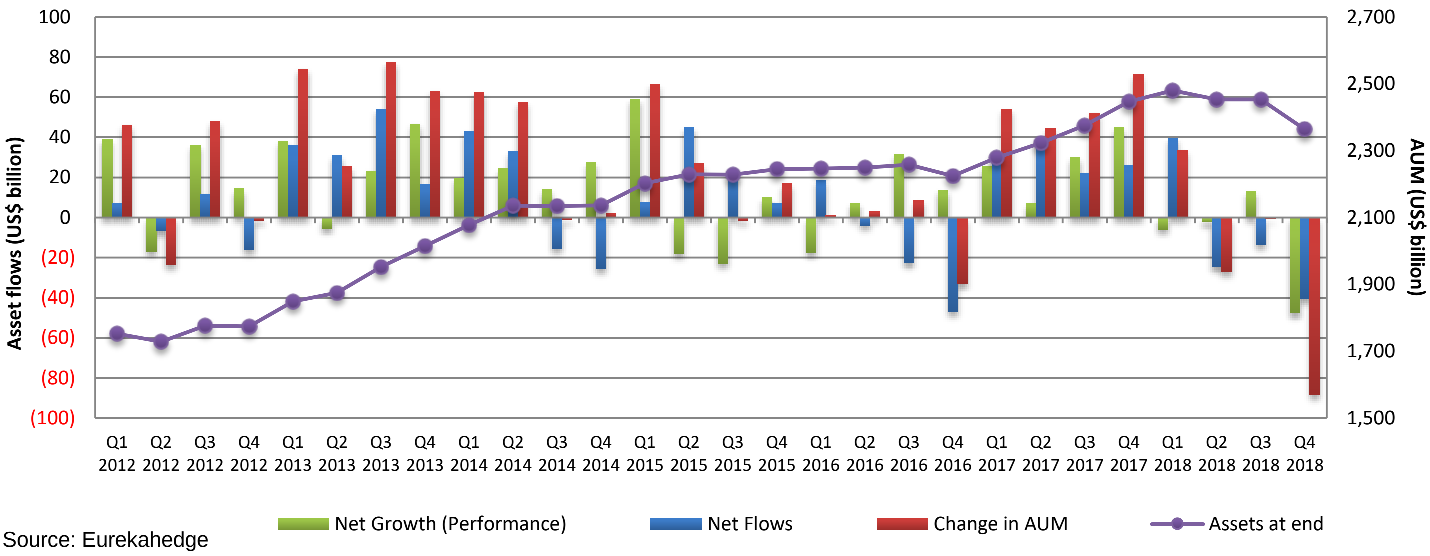
Hedge funds managed to ride on excellent performance-based gains between 2010 and 2014 despite going through redemption pressures which were strong during the Eurozone crisis in 2011. Despite uninterrupted redemptions due to market uncertainty between July 2014 and December 2014, global hedge funds registered excellent asset growth totalling up to US$121.0 billion over the year, with performance-based gains accounting for 71% of this growth. For the annual year 2015, net investor inflows accounted for the bulk of asset growth, with allocations totalling US$80.7 billion while a further US$27.9 billion was attributed to performance-driven gains. Going into 2016, the global hedge fund industry faced strong redemptions which stood at US$55.1 billion – the highest recorded loss since 2010, while performance-based gains stood at US$35.1 billion in the same year. The situation reversed in 2017 with US$114.6 billion investor inflows, on top of the US$107.3 billion performance-based gains, resulting in the strongest annual AUM growth the industry has seen after the end of 2013. On the other hand, the first 11 months of 2018 saw the industry's total AUM contracting by US$82.0 billion. Contrary to the previous year's strong investor inflows, in 2018, the industry recorded three consecutive quarters of investor redemptions and steep performance-based losses of US$39.2 billion and US$42.8 respectively as the market uncertainty lingered throughout the year.

Industry composition and growth trends

Asset flows

Figure 3 summarises the quarterly asset flows into the global hedge fund industry over the course of the last seven years - attributing the growth in AUM to both performance gains and investor flows. Hedge funds registered good performance-based gains in 2012, recovering from losses suffered during the Eurozone crisis in 2011. However, investors were slow to return to hedge funds with redemptions worth US$3.8 billion in 2012 despite good performance-based gains of US$72.8 billion. In 2013, strong global market equity rallies led the industry through a boom with excellent performance-based gains and asset inflows totalling US$102.9 billion and US$137.5 billion respectively, growing their asset base by US$240.4 billion by the end of 2013. Performance-based gains remained strong going into 2014, with all four quarters registering positive performance-based gains despite strong redemptions from North America and Europe focused funds in the second half of the year. Investor allocations were positive in all four quarters in 2015, with Q2 and Q3 2015 seeing the highest allocations totalling US$66.4 billion, despite both quarters witnessing performance driven losses totalling US$41.2 billion. Going into 2016, tough trading environment and uncertainties over major political events which occurred since the start of Q2 of 2016 resulted in strong redemptions totalling US$73.8 billion in the last three quarters of the year. Supported by the global equity market rallies and recovering economies in European and Asian countries, the hedge fund industry made a comeback in 2017 with US$114.6 billion investor inflows and US$107.3 billion performance-based gains over the year. As of November 2018, the industry had posted three consecutive quarters of investor redemption since Q2, resulting in a total of US$78.9 billion net outflows as investors flocked to less risky assets amidst the international trade friction and concerns about the global economic slowdown. In the same vein, performance-based losses also contributed to the decline of the industry's total asset management, as fund managers recorded a total of US$42.8 billion performance-based losses.

Figure 3: Quarterly asset flows in global hedge funds



Source: Eurekahedge

Table 1 below shows the asset allocations across the various regional mandates since the end of 2012.

Table 1: Monthly asset flows across regions

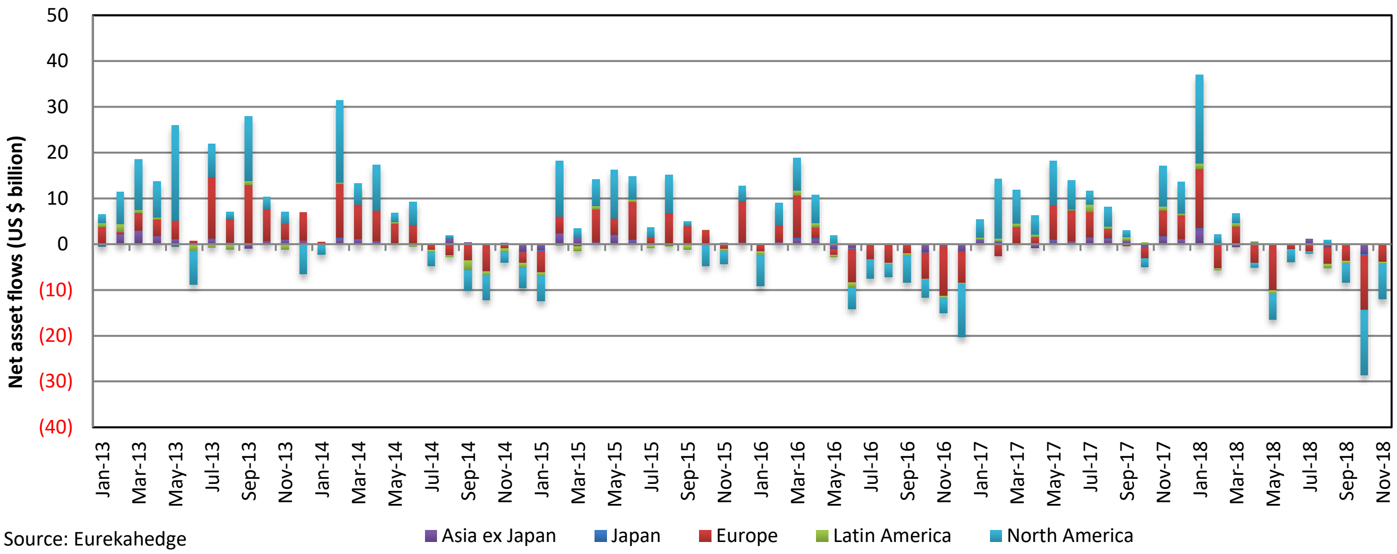
	Asia ex-Japan	Japan	Europe	Latin America	North America
2012	(2.4)	(1.9)	(5.2)	(0.9)	**6.7**
Jan-13	0.3	(0.5)	3.5	0.9	1.8
Feb-13	2.2	(0.0)	0.5	1.7	7.0
Mar-13	3.0	(0.1)	3.8	0.6	11.1
Apr-13	1.8	0.0	3.6	0.4	7.9
May-13	1.1	(0.6)	4.1	(0.1)	20.8
Jun-13	0.2	0.0	0.5	(1.5)	(7.3)
Jul-13	1.1	0.2	13.5	(0.7)	7.2
Aug-13	0.2	0.1	5.2	(1.1)	1.6
Sep-13	(0.9)	0.1	12.8	1.0	14.0
Oct-13	0.7	0.0	7.0	(0.0)	2.6

Nov-13	1.0	0.0	3.4	(1.2)	2.6
Dec-13	0.8	(0.0)	6.1	(0.4)	(6.2)
2013	**11.6**	**(0.6)**	**63.7**	**(0.4)**	**63.2**
Jan-14	0.2	(0.0)	0.3	(0.3)	(1.9)
Feb-14	1.3	0.2	11.7	0.3	17.9
Mar-14	1.1	(0.0)	7.6	(0.1)	4.6
Apr-14	0.5	0.2	6.7	(0.0)	9.9
May-14	0.0	0.0	4.4	0.4	1.9
Jun-14	(0.1)	0.1	4.1	(0.3)	4.9
Jul-14	(0.3)	(0.1)	(1.0)	(0.5)	(3.0)
Aug-14	1.3	(0.0)	(2.5)	(0.3)	0.7
Sep-14	0.4	(0.2)	(3.3)	(2.2)	(4.4)
Oct-14	(0.2)	(0.1)	(5.7)	(0.8)	(5.4)
Nov-14	0.2	(0.1)	(0.9)	(0.9)	(2.1)
Dec-14	(1.7)	(0.2)	(2.3)	(1.1)	(4.3)
2014	**2.7**	**(0.1)**	**19.3**	**(5.9)**	**18.8**
Jan-15	(1.4)	(0.3)	(4.6)	(0.6)	(5.6)
Feb-15	2.4	0.1	3.6	(0.3)	12.2
Mar-15	1.3	0.1	(0.5)	(1.0)	2.0
Apr-15	0.5	0.0	7.1	0.8	5.8
May-15	2.0	0.1	3.5	(0.2)	10.6
Jun-15	0.9	0.1	8.2	0.5	5.1
Jul-15	(0.3)	0.1	1.4	(0.5)	2.2
Aug-15	(0.4)	0.1	6.7	(0.2)	8.3
Sep-15	(0.3)	0.1	3.9	(0.8)	1.1
Oct-15	(0.2)	(0.0)	3.1	0.1	(4.6)
Nov-15	0.2	(0.1)	(1.0)	(0.4)	(2.9)
Dec-15	0.2	0.1	9.1	(0.1)	3.3
2015	**5.0**	**0.6**	**40.5**	**(2.8)**	**37.4**
Jan-16	(0.2)	(0.1)	(1.3)	(0.8)	(6.8)
Feb-16	0.4	0.1	3.5	0.0	5.0
Mar-16	1.2	0.2	9.2	1.0	7.1
Apr-16	1.2	0.1	2.4	0.9	6.1
May-16	(1.1)	(0.1)	(1.1)	(0.4)	1.9
Jun-16	(0.9)	(0.2)	(7.3)	(1.2)	(4.6)
Jul-16	(0.2)	(0.1)	(3.2)	0.0	(4.1)
Aug-16	0.2	(0.1)	(4.0)	(0.3)	(2.7)
Sep-16	0.1	(0.0)	(2.0)	(0.4)	(6.0)

Oct-16	(1.8)	(0.1)	(5.7)	(0.1)	(3.9)
Nov-16	(0.4)	(0.1)	(10.8)	(0.6)	(3.1)
Dec-16	(1.6)	(0.1)	(6.8)	(0.2)	(11.6)
2016	**(3.0)**	**(0.4)**	**(27.0)**	**(2.1)**	**(22.7)**
Jan-17	0.9	0.1	(0.2)	0.5	3.9
Feb-17	0.5	0.1	(2.6)	0.6	13.1
Mar-17	0.1	0.1	3.5	0.8	7.2
Apr-17	(0.8)	0.0	1.6	0.5	4.1
May-17	0.9	0.1	7.5	0.1	9.6
Jun-17	0.6	0.1	6.7	0.2	6.4
Jul-17	1.5	0.1	5.5	1.6	2.9
Aug-17	1.3	0.0	2.0	0.6	4.2
Sep-17	0.8	(0.0)	(0.4)	0.8	1.4
Oct-17	(0.5)	(0.1)	(2.5)	0.3	(1.8)
Nov-17	1.6	0.2	5.5	0.9	8.8
Dec-17	1.0	0.1	5.2	0.4	6.9
2017	**7.9**	**0.9**	**31.7**	**7.4**	**66.6**
Jan-18	3.2	0.3	12.9	1.3	19.3
Feb-18	0.3	0.1	(5.3)	(0.3)	1.8
Mar-18	(0.6)	0.1	3.7	0.8	2.1
Apr-18	0.4	(0.0)	(4.1)	0.2	(1.0)
May-18	(0.1)	(0.1)	(9.9)	(0.8)	(5.5)
Jun-18	0.1	(0.0)	(1.1)	(0.1)	(2.6)
Jul-18	1.1	(0.0)	(1.5)	(0.1)	(0.4)
Aug-18	(0.7)	(0.0)	(3.6)	(0.9)	0.9
Sep-18	(0.3)	(0.1)	(3.3)	(0.5)	(4.2)
Oct-18	(2.2)	(0.3)	(11.9)	(0.1)	(14.2)
Nov-18	0.0	(0.1)	(3.7)	(0.5)	(7.6)

Source: Eurekahedge

Figure 4: Monthly asset flows across regions



Source: Eurekahedge

Table 2 below provides the detailed asset flows breakdown across the primary hedge fund strategies.

Table 2: Monthly asset flows across strategies

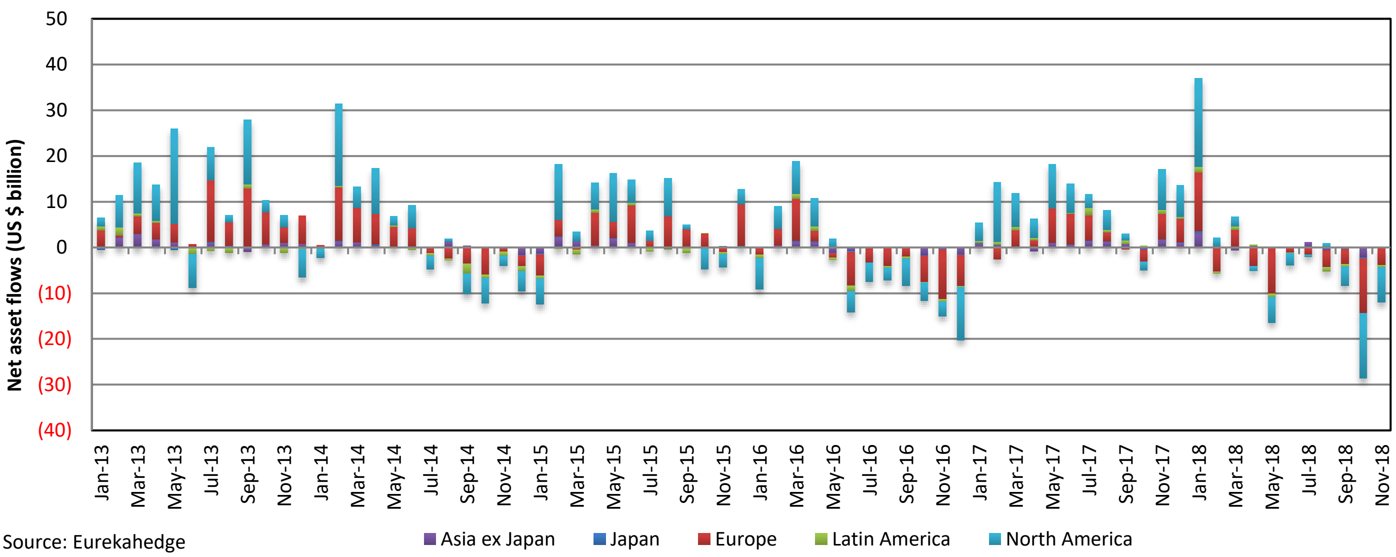
	Arbitrage	CTA/managed futures	Distressed debt	Event driven	Fixed income	Long/short equities	Macro	Multi-strategy	Relative value	Others
2012	**0.3**	**(0.5)**	**3.5**	**0.9**	**1.8**	**0.3**	**(0.5)**	**3.5**	**0.9**	**1.8**
Jan-13	2.2	(0.0)	0.5	1.7	7.0	2.2	(0.0)	0.5	1.7	7.0
Feb-13	3.0	(0.1)	3.8	0.6	11.1	3.0	(0.1)	3.8	0.6	11.1
Mar-13	1.8	0.0	3.6	0.4	7.9	1.8	0.0	3.6	0.4	7.9
Apr-13	1.1	(0.6)	4.1	(0.1)	20.8	1.1	(0.6)	4.1	(0.1)	20.8
May-13	0.2	0.0	0.5	(1.5)	(7.3)	0.2	0.0	0.5	(1.5)	(7.3)
Jun-13	1.1	0.2	13.5	(0.7)	7.2	1.1	0.2	13.5	(0.7)	7.2
Jul-13	0.2	0.1	5.2	(1.1)	1.6	0.2	0.1	5.2	(1.1)	1.6
Aug-13	(0.9)	0.1	12.8	1.0	14.0	(0.9)	0.1	12.8	1.0	14.0
Sep-13	0.7	0.0	7.0	(0.0)	2.6	0.7	0.0	7.0	(0.0)	2.6
Oct-13	1.0	0.0	3.4	(1.2)	2.6	1.0	0.0	3.4	(1.2)	2.6
Nov-13	0.8	(0.0)	6.1	(0.4)	(6.2)	0.8	(0.0)	6.1	(0.4)	(6.2)
Dec-13	0.2	(0.0)	0.3	(0.3)	(1.9)	0.2	(0.0)	0.3	(0.3)	(1.9)
2013	**1.3**	**0.2**	**11.7**	**0.3**	**17.9**	**1.3**	**0.2**	**11.7**	**0.3**	**17.9**
Jan-14	1.1	(0.0)	7.6	(0.1)	4.6	1.1	(0.0)	7.6	(0.1)	4.6
Feb-14	0.5	0.2	6.7	(0.0)	9.9	0.5	0.2	6.7	(0.0)	9.9
Mar-14	0.0	0.0	4.4	0.4	1.9	0.0	0.0	4.4	0.4	1.9
Apr-14	(0.1)	0.1	4.1	(0.3)	4.9	(0.1)	0.1	4.1	(0.3)	4.9
May-14	(0.3)	(0.1)	(1.0)	(0.5)	(3.0)	(0.3)	(0.1)	(1.0)	(0.5)	(3.0)
Jun-14	1.3	(0.0)	(2.5)	(0.3)	0.7	1.3	(0.0)	(2.5)	(0.3)	0.7

Jul-14	0.4	(0.2)	(3.3)	(2.2)	(4.4)	0.4	(0.2)	(3.3)	(2.2)	(4.4)
Aug-14	(0.2)	(0.1)	(5.7)	(0.8)	(5.4)	(0.2)	(0.1)	(5.7)	(0.8)	(5.4)
Sep-14	0.2	(0.1)	(0.9)	(0.9)	(2.1)	0.2	(0.1)	(0.9)	(0.9)	(2.1)
Oct-14	(1.7)	(0.2)	(2.3)	(1.1)	(4.3)	(1.7)	(0.2)	(2.3)	(1.1)	(4.3)
Nov-14	(1.4)	(0.3)	(4.6)	(0.6)	(5.6)	(1.4)	(0.3)	(4.6)	(0.6)	(5.6)
Dec-14	2.4	0.1	3.6	(0.3)	12.2	2.4	0.1	3.6	(0.3)	12.2
2014	**1.3**	**0.1**	**(0.5)**	**(1.0)**	**2.0**	**1.3**	**0.1**	**(0.5)**	**(1.0)**	**2.0**
Jan-15	0.5	0.0	7.1	0.8	5.8	0.5	0.0	7.1	0.8	5.8
Feb-15	2.0	0.1	3.5	(0.2)	10.6	2.0	0.1	3.5	(0.2)	10.6
Mar-15	0.9	0.1	8.2	0.5	5.1	0.9	0.1	8.2	0.5	5.1
Apr-15	(0.3)	0.1	1.4	(0.5)	2.2	(0.3)	0.1	1.4	(0.5)	2.2
May-15	(0.4)	0.1	6.7	(0.2)	8.3	(0.4)	0.1	6.7	(0.2)	8.3
Jun-15	(0.3)	0.1	3.9	(0.8)	1.1	(0.3)	0.1	3.9	(0.8)	1.1
Jul-15	(0.2)	(0.0)	3.1	0.1	(4.6)	(0.2)	(0.0)	3.1	0.1	(4.6)
Aug-15	0.2	(0.1)	(1.0)	(0.4)	(2.9)	0.2	(0.1)	(1.0)	(0.4)	(2.9)
Sep-15	0.2	0.1	9.1	(0.1)	3.3	0.2	0.1	9.1	(0.1)	3.3
Oct-15	(0.2)	(0.1)	(1.3)	(0.8)	(6.8)	(0.2)	(0.1)	(1.3)	(0.8)	(6.8)
Nov-15	0.4	0.1	3.5	0.0	5.0	0.4	0.1	3.5	0.0	5.0
Dec-15	1.2	0.2	9.2	1.0	7.1	1.2	0.2	9.2	1.0	7.1
2015	**1.2**	**0.1**	**2.4**	**0.9**	**6.1**	**1.2**	**0.1**	**2.4**	**0.9**	**6.1**
Jan-16	(1.1)	(0.1)	(1.1)	(0.4)	1.9	(1.1)	(0.1)	(1.1)	(0.4)	1.9
Feb-16	(0.9)	(0.2)	(7.3)	(1.2)	(4.6)	(0.9)	(0.2)	(7.3)	(1.2)	(4.6)
Mar-16	(0.2)	(0.1)	(3.2)	0.0	(4.1)	(0.2)	(0.1)	(3.2)	0.0	(4.1)
Apr-16	0.2	(0.1)	(4.0)	(0.3)	(2.7)	0.2	(0.1)	(4.0)	(0.3)	(2.7)
May-16	0.1	(0.0)	(2.0)	(0.4)	(6.0)	0.1	(0.0)	(2.0)	(0.4)	(6.0)
Jun-16	(1.8)	(0.1)	(5.7)	(0.1)	(3.9)	(1.8)	(0.1)	(5.7)	(0.1)	(3.9)
Jul-16	(0.4)	(0.1)	(10.8)	(0.6)	(3.1)	(0.4)	(0.1)	(10.8)	(0.6)	(3.1)
Aug-16	(1.6)	(0.1)	(6.8)	(0.2)	(11.6)	(1.6)	(0.1)	(6.8)	(0.2)	(11.6)
Sep-16	0.9	0.1	(0.2)	0.5	3.9	0.9	0.1	(0.2)	0.5	3.9
Oct-16	0.5	0.1	(2.6)	0.6	13.1	0.5	0.1	(2.6)	0.6	13.1
Nov-16	0.1	0.1	3.5	0.8	7.2	0.1	0.1	3.5	0.8	7.2
Dec-16	(0.8)	0.0	1.6	0.5	4.1	(0.8)	0.0	1.6	0.5	4.1
2016	**0.9**	**0.1**	**7.5**	**0.1**	**9.6**	**0.9**	**0.1**	**7.5**	**0.1**	**9.6**
Jan-17	0.6	0.1	6.7	0.2	6.4	0.6	0.1	6.7	0.2	6.4
Feb-17	1.5	0.1	5.5	1.6	2.9	1.5	0.1	5.5	1.6	2.9
Mar-17	1.3	0.0	2.0	0.6	4.2	1.3	0.0	2.0	0.6	4.2
Apr-17	0.8	(0.0)	(0.4)	0.8	1.4	0.8	(0.0)	(0.4)	0.8	1.4
May-17	(0.5)	(0.1)	(2.5)	0.3	(1.8)	(0.5)	(0.1)	(2.5)	0.3	(1.8)

Jun-17	1.6	0.2	5.5	0.9	8.8	1.6	0.2	5.5	0.9	8.8
Jul-17	1.0	0.1	5.2	0.4	6.9	1.0	0.1	5.2	0.4	6.9
Aug-17	3.2	0.3	12.9	1.3	19.3	3.2	0.3	12.9	1.3	19.3
Sep-17	0.3	0.1	(5.3)	(0.3)	1.8	0.3	0.1	(5.3)	(0.3)	1.8
Oct-17	(0.6)	0.1	3.7	0.8	2.1	(0.6)	0.1	3.7	0.8	2.1
Nov-17	0.4	(0.0)	(4.1)	0.2	(1.0)	0.4	(0.0)	(4.1)	0.2	(1.0)
Dec-17	(0.1)	(0.1)	(9.9)	(0.8)	(5.5)	(0.1)	(0.1)	(9.9)	(0.8)	(5.5)
2017	**0.1**	**(0.0)**	**(1.1)**	**(0.1)**	**(2.6)**	**0.1**	**(0.0)**	**(1.1)**	**(0.1)**	**(2.6)**
Jan-18	1.1	(0.0)	(1.5)	(0.1)	(0.4)	1.1	(0.0)	(1.5)	(0.1)	(0.4)
Feb-18	(0.7)	(0.0)	(3.6)	(0.9)	0.9	(0.7)	(0.0)	(3.6)	(0.9)	0.9
Mar-18	(0.3)	(0.1)	(3.3)	(0.5)	(4.2)	(0.3)	(0.1)	(3.3)	(0.5)	(4.2)
Apr-18	(2.2)	(0.3)	(11.9)	(0.1)	(14.2)	(2.2)	(0.3)	(11.9)	(0.1)	(14.2)
May-18	0.0	(0.1)	(3.7)	(0.5)	(7.6)	0.0	(0.1)	(3.7)	(0.5)	(7.6)
Jun-18	0.3	(0.5)	3.5	0.9	1.8	0.3	(0.5)	3.5	0.9	1.8
Jul-18	2.2	(0.0)	0.5	1.7	7.0	2.2	(0.0)	0.5	1.7	7.0
Aug-18	3.0	(0.1)	3.8	0.6	11.1	3.0	(0.1)	3.8	0.6	11.1
Sep-18	1.8	0.0	3.6	0.4	7.9	1.8	0.0	3.6	0.4	7.9
Oct-18	1.1	(0.6)	4.1	(0.1)	20.8	1.1	(0.6)	4.1	(0.1)	20.8
Nov-18	0.2	0.0	0.5	(1.5)	(7.3)	0.2	0.0	0.5	(1.5)	(7.3)

Source: Eurekahedge

Figure 5: Monthly asset flows across strategies



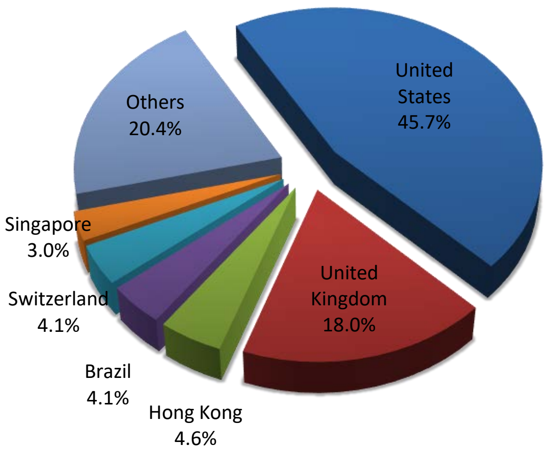
Source: Eurekahedge

Head office location

Figure 6a provides the industry population breakdown based on head office location by the end of 2010, while figure 6b provides the same data as of November 2018. The United States and United Kingdom continued to dominate with the largest hedge fund populations in the world. The former's population share stood at 57.3% as of November 2018, while the United Kingdom's market share declined to 12.2% as uncertainties revolving around Brexit negotiations continued to loom over the industry.

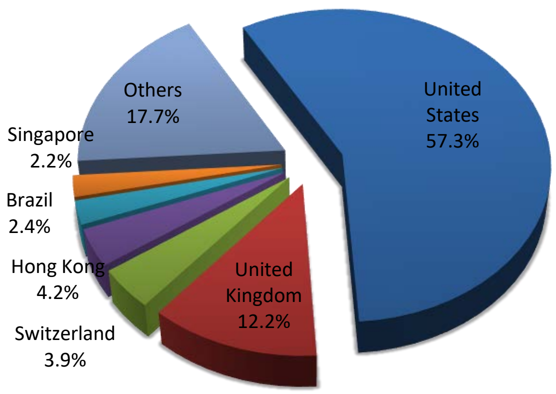
Figures 6a-6b: Industry breakdown by head office location

2010



Source: Eurekahedge

2018

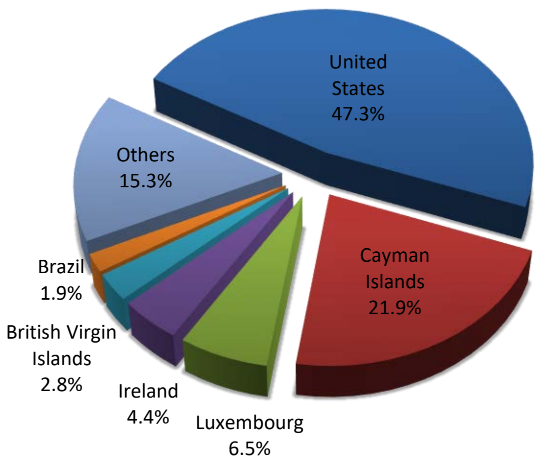


Source: Eurekahedge

Domicile

Figure 7 shows the hedge fund industry population breakdown by country of domicile. The United States and the Cayman Islands continued to be the top two choices capturing 69.1% of the population between the two. The implemented tax cuts in the United States might potentially be able to lure hedge fund managers to domicile their funds in the country, on top of offering proximity to the largest pool of investors in the world. Among offshore jurisdictions, the Cayman Islands remained as the most popular choice for hedge fund domicile. Luxembourg and Ireland collectively accounted for 10.9% of the industry population, offering hedge fund managers the benefits of having low tax policies and being members of the European Union, which might help with regulatory compliance, which is crucial for marketing their funds toward European investors.

Figure 7: Industry breakdown by domicile

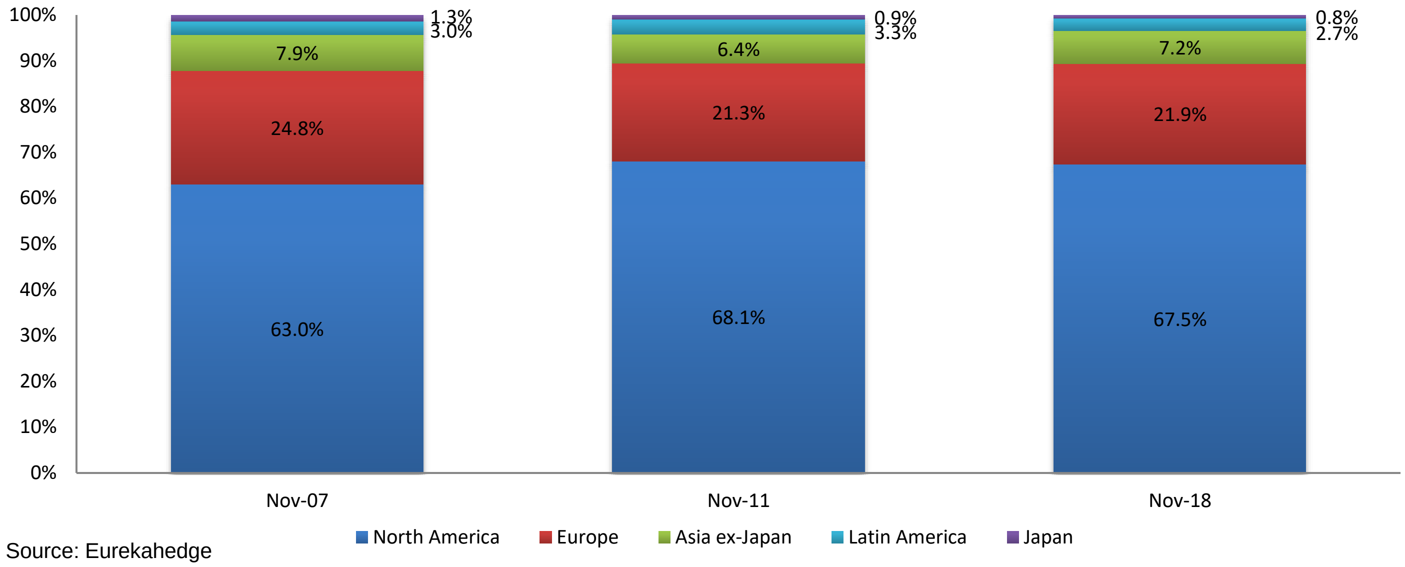


Source: Eurekahedge

Geographic mandates

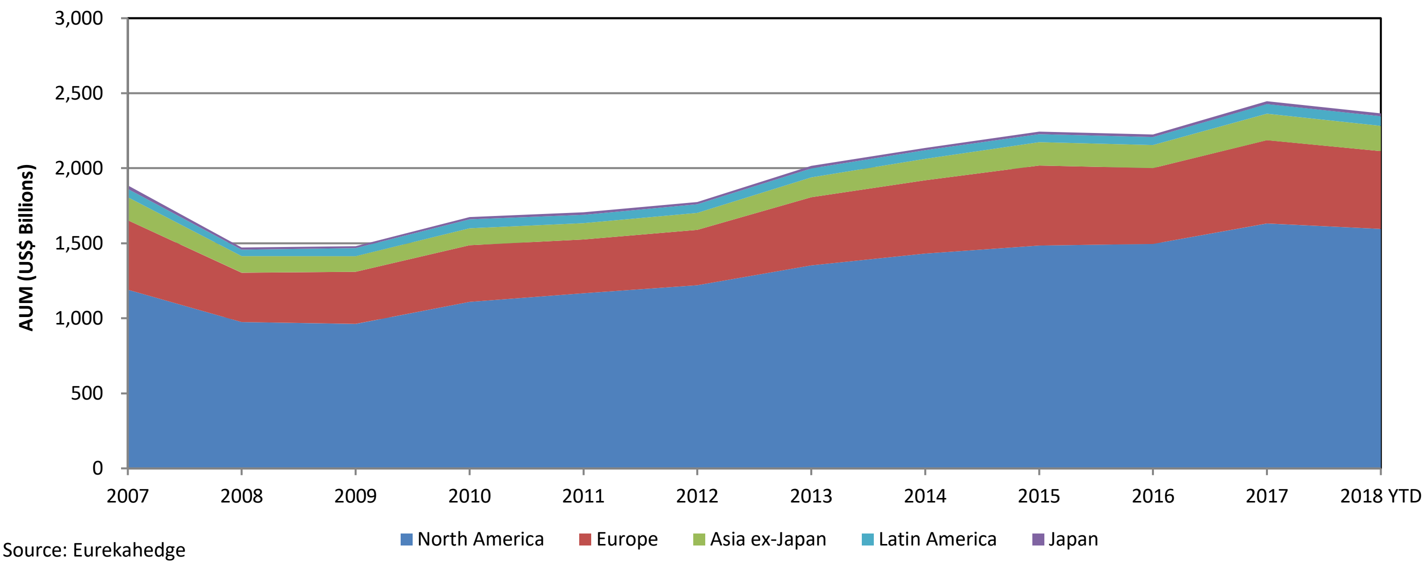
Figure 8a and Figure 8b provide the AUM distribution of the global hedge fund industry over time. It could be observed that the distribution has mostly remained the same over the past decade, with North American funds accounting for over two-thirds of the total industry AUM. Europe has maintained their position as the second biggest hedge fund industry in the world, overseeing 21.9% of the total industry AUM as of November 2018. At the same time, hedge funds focused in Asia and Latin America collectively manage 10.6% of the industry AUM.

Figure 8a: AUM distribution by geographic mandate



Source: Eurekahedge

Figure 8b: AUM growth by geographic mandate since 2007

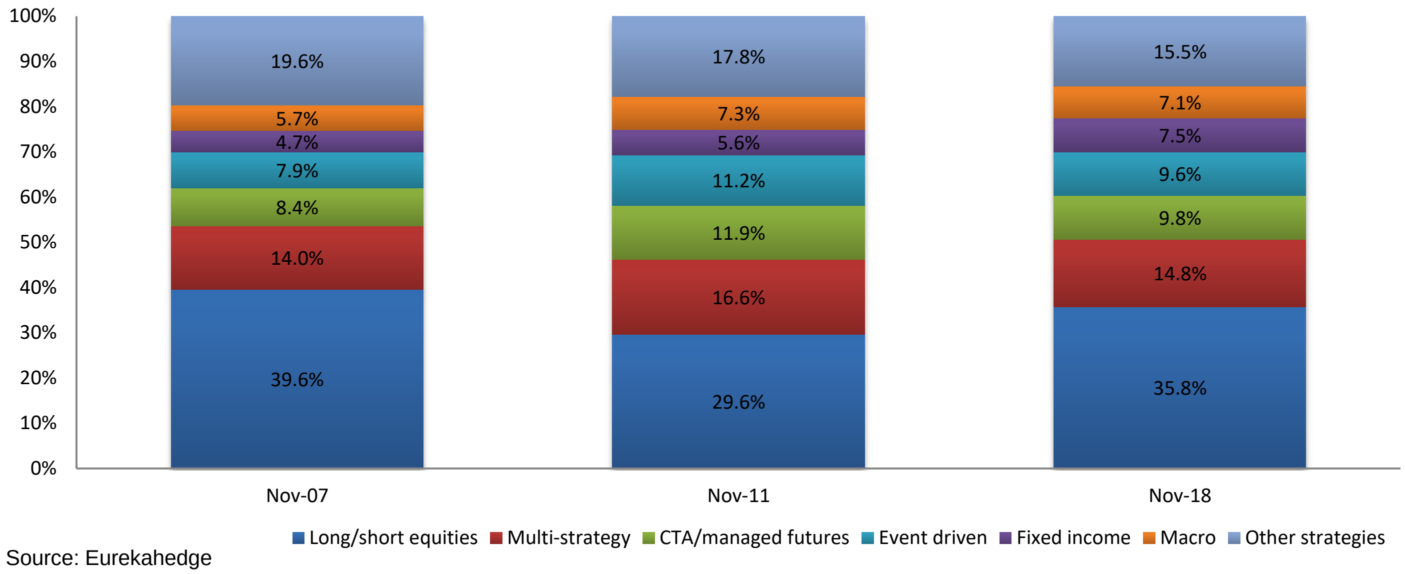


Source: Eurekahedge

Strategic mandates

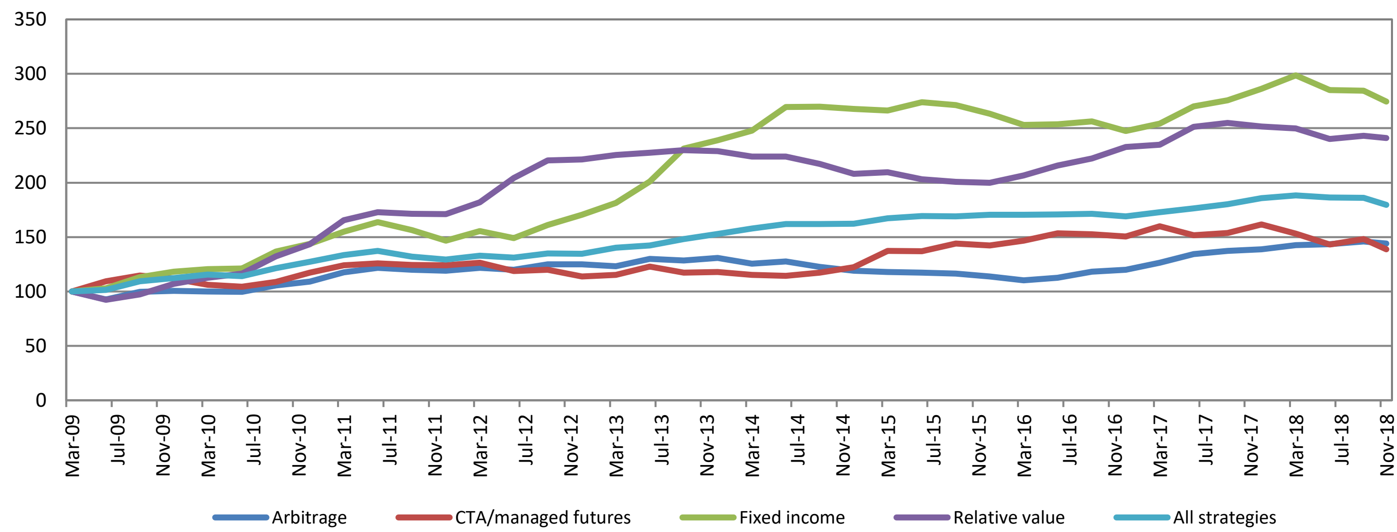
Long/short equities have remained as the single most popular strategy among the primary strategic mandates, with 35.8% market share as of November 2018. Multi-strategy, CTA/managed futures and event driven hedge funds followed behind with 14.8%, 9.8% and 9.6% market shares respectively. These four strategic mandates have roughly maintained their shares of the industry AUM over the last decade. Fixed income hedge funds came in fifth with 7.5% AUM share in November 2018, up from the previous figures of 5.6% in 2011 and 4.7% in 2007. These hedge funds are known for lower volatilities and often considered as safer investment vehicles during times in which the equity market performs poorly, which might explain the surge in AUM share following the 2008 crisis.

Figure 9a: AUM distribution by strategic mandate



Source: Eurekahedge

Figure 9b: Relative AUM growth by strategic mandate since March 2009

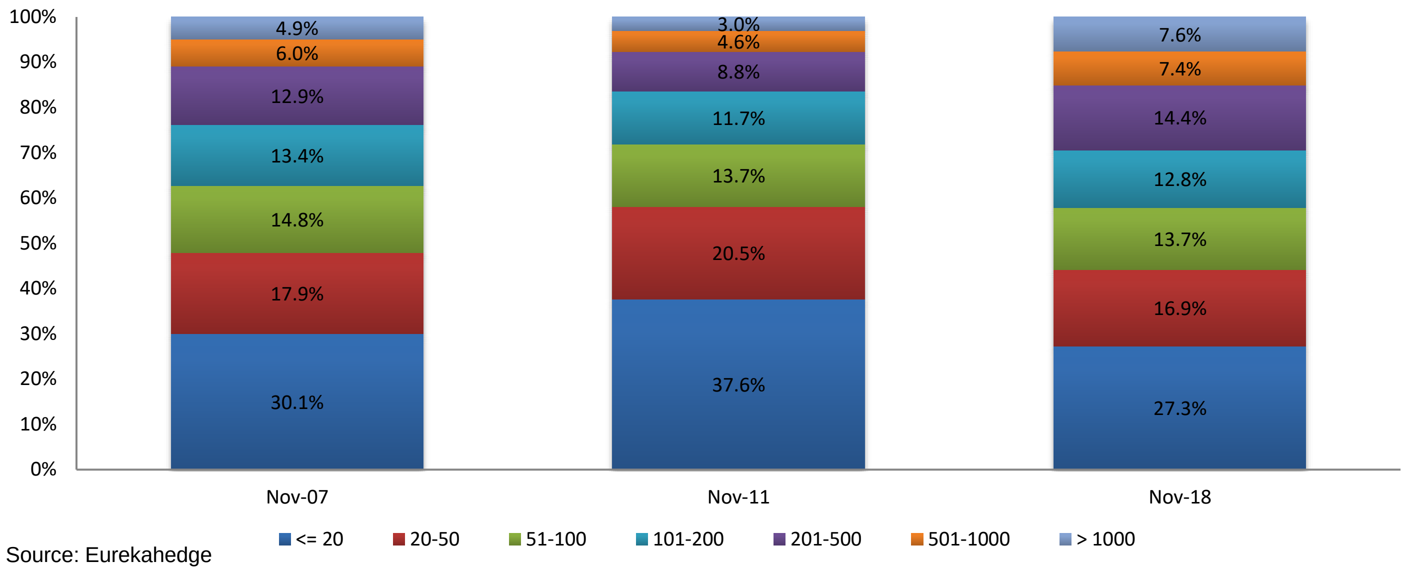


Source: Eurekahedge

Fund sizes

The number of funds managing up to US$100 million in assets has declined from 62.7% in 2007 to 57.8% in 2018, while on the other hand the number of funds managing more than US$1 billion has increased from 4.9% to 7.6% over the same period. This shift in population might indicate a shift in preferences of the hedge fund investors toward larger hedge funds, better survivability of larger hedge funds, or both. The increasingly demanding regulations over the last few years have driven compliance costs up, while on the other hand average hedge fund fees have declined over the past decade. Combined with the increasing competition from both within the hedge fund industry, as well as other alternative investment vehicles, it may come as no surprise that the survival rate among smaller hedge funds has declined.

Figure 10: Industry breakdown by fund size (US$ million)

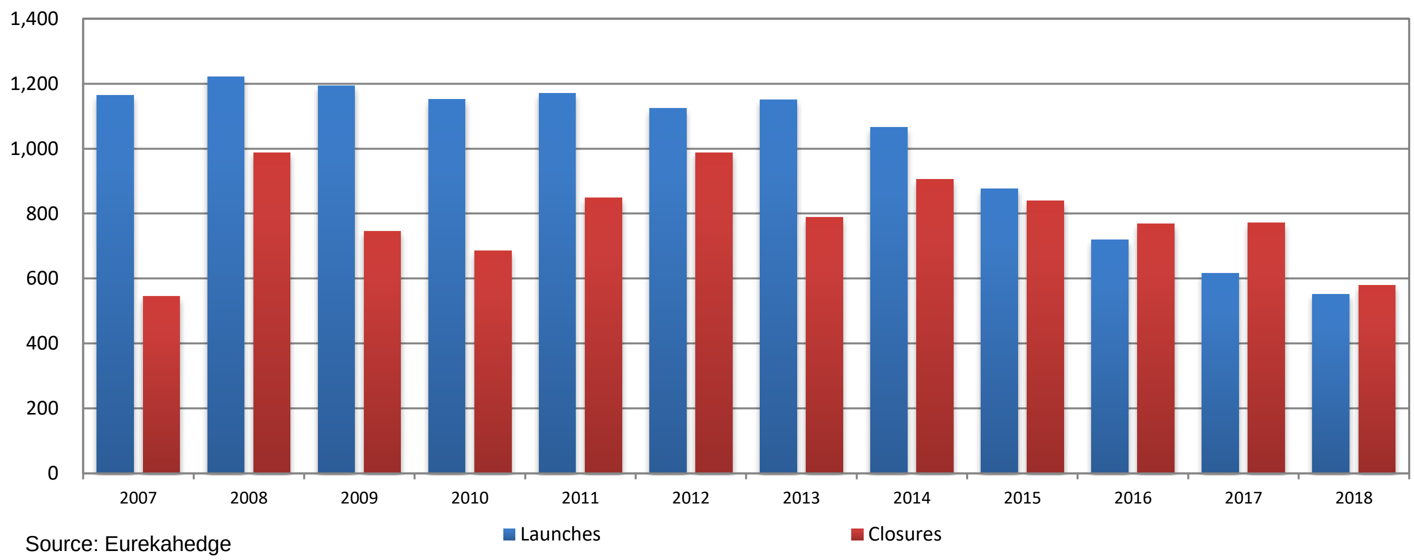


Source: Eurekahedge

Launches and closures

Figure 11 gives a clear profile of the yearly growth and attrition rate of the industry since 2007. The industry grew at its fastest pace prior to 2008, with the biggest difference between fund launches and closures. During the peak of the global financial crisis in 2008, market turmoil and the collapse of the equity market led to enormous redemptions which caused a large number of hedge funds to close down. Following the crisis, regulatory reforms and the introduction of stricter directives on alternative investment vehicles put intense pressure on the launch activities of hedge funds. The increased compliance costs and more stringent requirements for transparency caused the hedge fund industry population's growth to slow down, and eventually dip into the negative territory in the last three years, as closures surpassed launches.

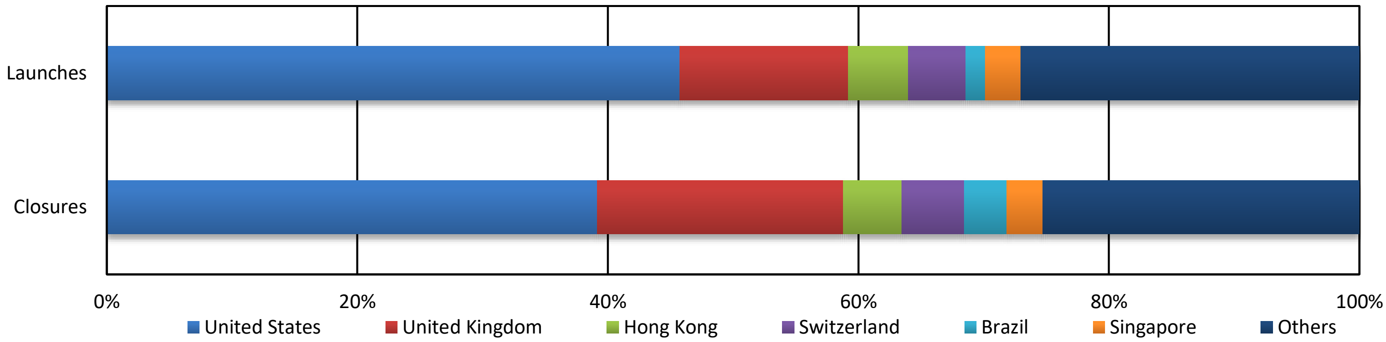
Figure 11: Launches and closures across the global hedge fund industry



Source: Eurekahedge

The following figures provide the breakdown of the launch and closure activities of the global hedge fund industry since 2008 based on head office location, domicile, geographic and strategic mandate, and fund size.

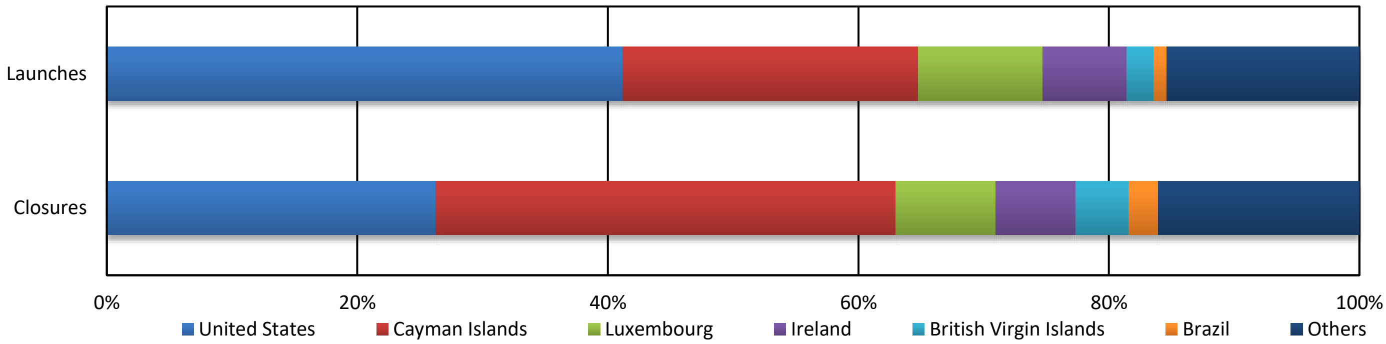
Figure 12a: Launches and closures since 2008 by head office location



Source: Eurekahedge

As one would expect based on their population shares, funds located in the United States and the United Kingdom also accounted for the two largest portions of hedge fund launch and closure activities. More than 40% of the hedge funds that launched since 2008 were located in the United States, a testament to the importance of proximity to the largest pool of investors in the world. Hong Kong and Switzerland also saw a notable amount of launch and closure activities due to their strategic locations as hubs for fund managers that desire access to the Greater China region and European Union respectively.

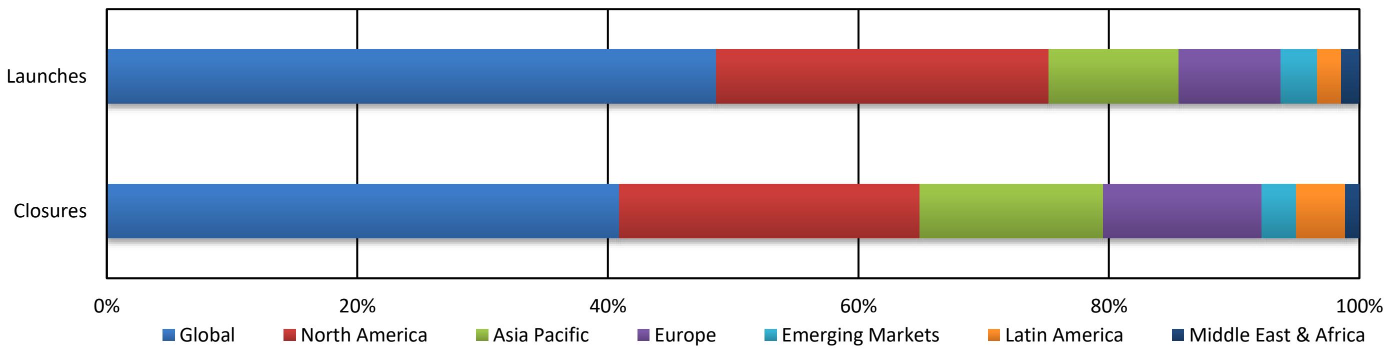
Figure 12b: Launches and closures since 2008 by domicile



Source: Eurekahedge

Figure 12b shows that the United States domiciled funds comprise over 40% of the global industry launches since 2008. Cayman Islands, Luxembourg and Ireland are the next major locations preferred by hedge fund managers for their funds' domicile. However, looking at closures, Cayman Islands saw even more closures than the United States over the same period. One reason that might have contributed was the introduction of the AIFMD in 2011 which encouraged hedge funds that are marketed toward European investors to move into the European Union by making it easier for onshore funds to obtain their AIFMD passports. This would also explain the increase in population share of hedge funds domiciled in Luxembourg and Ireland.

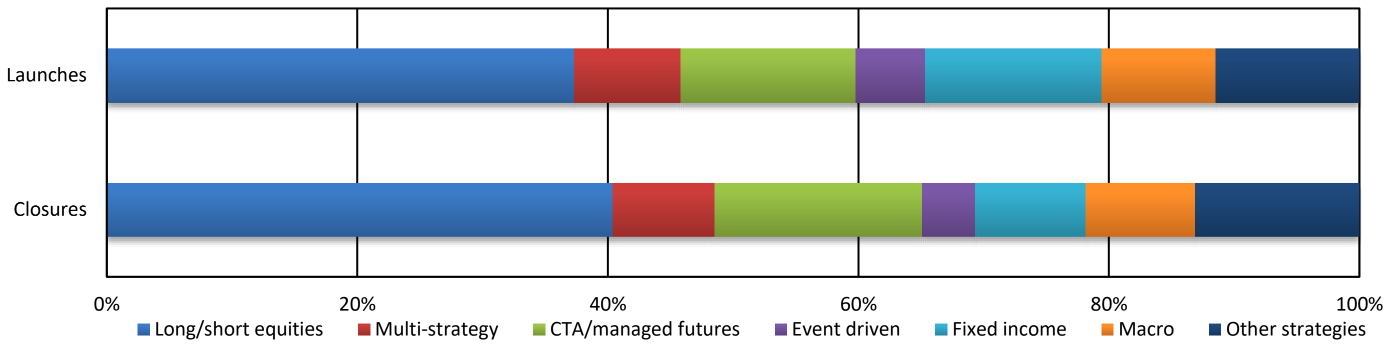
Figure 12c: Launches and closures since 2008 by geographic mandate



Source: Eurekahedge

Following the global financial crisis in 2008, demand for globally investing hedge funds increased due to the extra layer of diversification offered by these hedge funds by investing in multiple regions. However, they also contribute the largest number of closures by virtue of their population size in the industry. Unsurprisingly, North American focused hedge funds still account for a sizeable portion of the launch and closure activities, coming in the second place for both launches and closures.

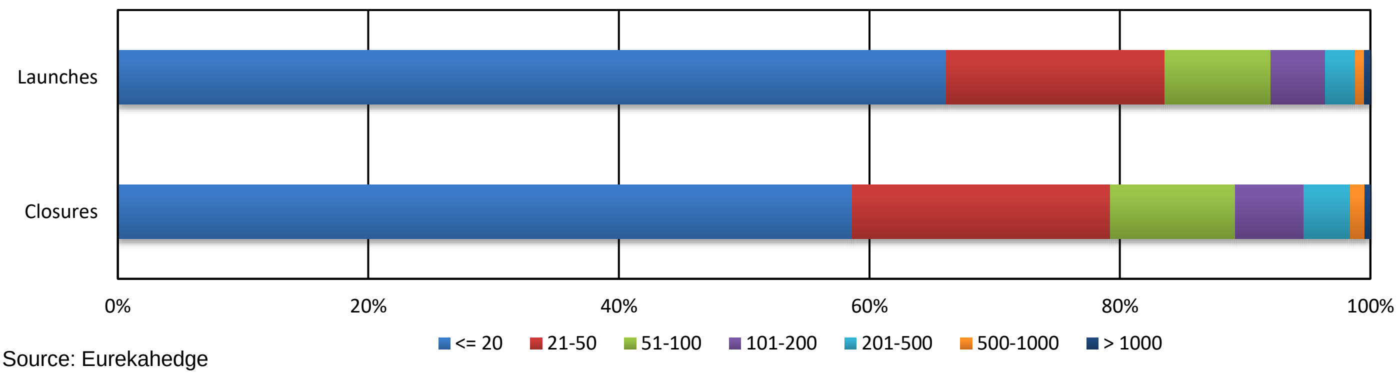
Figure 12d: Launches and closures since 2008 by strategic mandate



Source: Eurekahedge

Over a third of the launch and closure activities in the hedge fund industry since 2008 were contributed by long/short equity hedge funds. Fixed income hedge funds came in second in terms of launches, despite having a noticeably lower number of closures compared to CTA/managed futures hedge funds.

Figure 12e: Launches and closures since 2008 by fund size (US$ million)

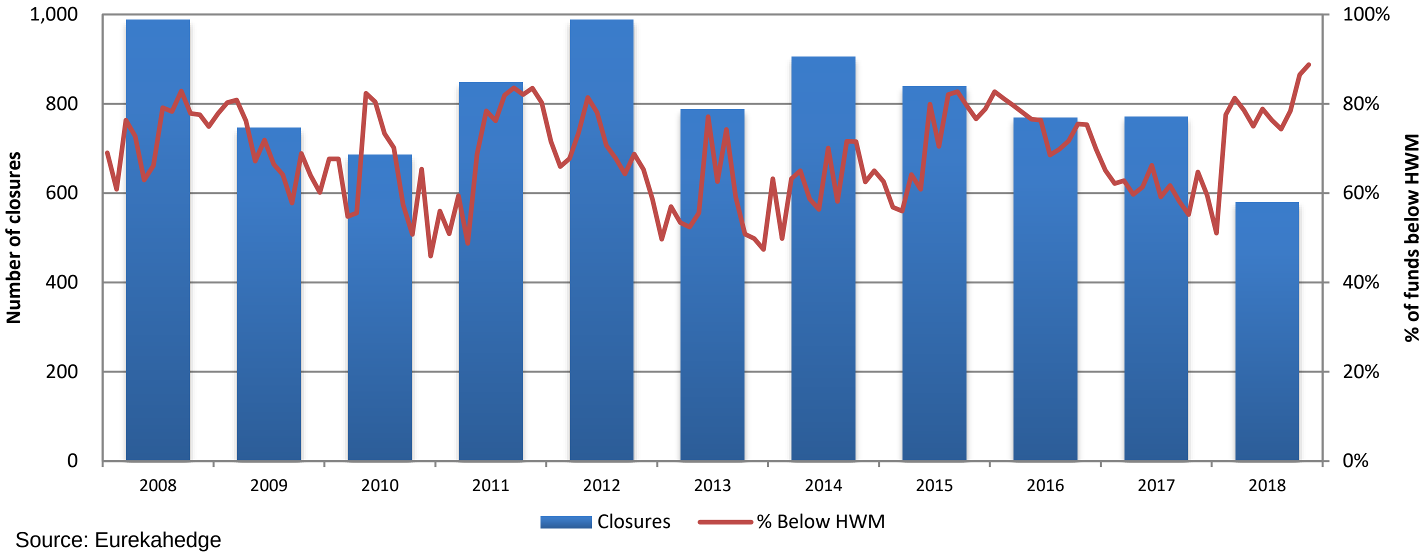


Source: Eurekahedge

Small hedge funds managing up to US$20 million in assets accounted for more than half of the launch and closure activities within the industry since 2008. This number is a lot higher compared to their population share shown in Figure 10, signifying the high attrition rate within this segment of the hedge fund industry compared to the rest.

Figure 13 compares the percentage of funds below their perpetual high water mark (HWM) against the number of fund closures since 2008 to test the relationship between underperformance within the hedge fund industry and the number of funds closing down. As of November 2018, the percentage of funds below their high water marks stood at just under 90%, owing to the recent weakness in the global equity markets throughout the fourth quarter of the year.

Figure 13: Percentage of funds below HWM compared to number of closures



Source: Eurekahedge

The following table provides several key statistics on the pre-closure performance of hedge funds that liquidated within the past five years. These annualised returns of the now obsolete funds are calculated over the last 12, 24 and 36 months of their lifespans. On average, these funds generated 2.83% losses in their final year of operation, but looking at the first quartile, the bottom 25% of these funds lost at least 8.64% of their assets in 12 months. Generally, the majority of these funds posted poor to mediocre performance before closing down. However, it is worth noting that these statistics were taken over the last few years of the dead funds' lifespans, capturing different periods of the market, making it difficult to compare them to the underlying equity market's performance.

Table 3: Pre-closure performance of funds closing in the last five years

	Mean	First Quartile	Median	Third Quartile
Last 12 months rolling return (%)	(2.83%)	(8.64%)	(1.70%)	3.39%
Last 24 months annualised return (%)	(0.92%)	(5.45%)	(0.62%)	3.62%
Last 36 months annualised return (%)	(0.11%)	(3.57%)	(0.02%)	3.79%

Source: Eurekahedge

Fees

Table 4a shows the average performance and management fees charged by newly launched hedge funds aggregated by launch year. Hedge funds that launched in 2018 charge on average 15.32% performance and 1.33% management fees, significantly lower than the '2 and 20' fee structure commonly adopted by many hedge fund managers before the 2008 financial crisis. Increasing competition within the industry, and from other alternative investment vehicles have put considerable pressure on hedge fund fees over the past decade. Among the hedge funds that launched in 2018, 54.58% of them charged 20% performance fees, while only 21.11% charge 2% management fees, suggesting that management fees come under more severe scrutiny than performance fees. It is pertinent to note that lowering fees is not the only way for hedge funds to appeal to their investors. Some hedge funds may offer shorter lock-up periods on top of lower fees, while others may implement stricter high water mark system or hurdle rates. Recent surveys revealed that a sizeable portion of hedge fund managers were willing to negotiate their fee structures.

Table 4a: Average hedge fund fees by launch year

Year	Performance Fees (%)	Management Fees (%)
2006	18.05	1.60
2007	18.04	1.63
2008	17.16	1.52
2009	17.02	1.54
2010	16.92	1.56
2011	16.76	1.51
2012	16.23	1.46
2013	14.86	1.33
2014	15.30	1.35
2015	14.52	1.30
2016	15.17	1.32
2017	15.49	1.23
2018	15.32	1.33

Source: Eurekahedge

Generally, hedge fund fees are also affected by various things such as the complexity of the strategies employed by the fund manager, as well as the type of instruments they trade, since these factors are directly associated to a hedge fund's operational expenses and liquidity. Table 4b below breaks down the average performance and management fees of the hedge fund industry based on the strategic mandate employed. Distressed debt and event driven hedge funds tend to be on the expensive side both in terms of management fees as well as performance fees, owing to the complexity of executing these strategies, as well as the lack of liquidity. Fixed income hedge funds, on the other hand, tend to charge both the lowest management fees and performance fees among all the strategic mandates.

Table 4b: Average hedge fund fees by strategy

Strategy	Performance Fees (%)	Management Fees (%)
Arbitrage	19.37	1.39
CTA/managed futures	18.42	1.54
Distressed debt	19.23	1.76
Event driven	17.53	1.62
Fixed income	11.18	1.13
Long/short equities	17.53	1.55
Macro	16.62	1.47
Multi-strategy	15.09	1.48
Others	14.03	1.45
Relative value	17.64	1.44

Source: Eurekahedge

Prime brokers

Table 5b provides a recent market share breakdown for prime brokers based on AUM. For comparison, Table 5a provides the data from before the 2008 financial crisis. Various changes have occurred within the hedge fund prime brokerage industry, including the bankruptcy of Lehman Brothers, the acquisition of Bear Stearns by JPMorgan Chase and Merrill Lynch by Bank of America, to name a few. As of November 2018, the three top prime brokers, Goldman Sachs, JPMorgan Chase, and Morgan Stanley collectively oversee 50.43% of the whole industry AUM. This figure is lower than the 53.22% managed by Morgan Stanley, Goldman Sachs and Bear Stearns in 2007, indicating that the industry AUM has become less concentrated on the top three brokers, but more concentrated on the top ten brokers, as seen from the decline in the market share of other brokers outside the top ten shown in the two tables below.

Table 5a-b: Market share of prime brokers by AUM

2008	
Prime Broker	Market Share
Morgan Stanley	20.03%
Goldman Sachs	18.48%
Bear Stearns	14.71%
UBS	7.82%
Deutsche Bank	5.87%
Citigroup	4.18%
Credit Suisse	4.03%
Lehman Brothers	3.58%
Merrill Lynch	2.89%
Bank of America	2.45%
Others	15.96%

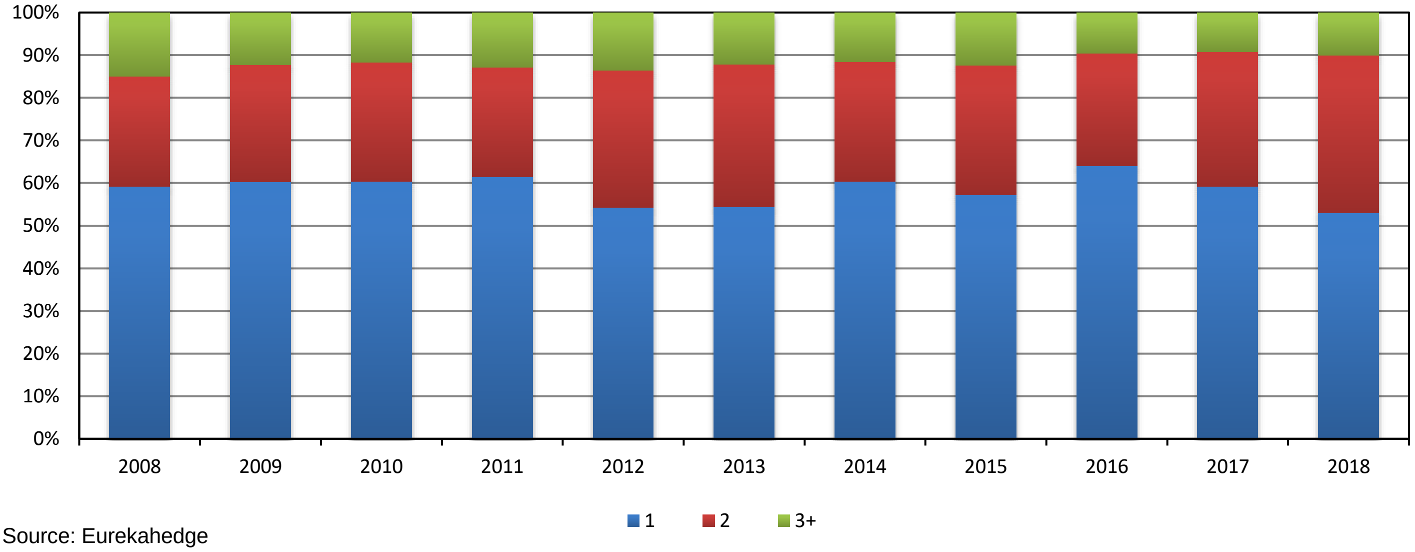
Source: Eurekahedge

Nov 2018	
Prime Broker	Market Share
Goldman Sachs	18.96%
JPMorgan Chase	16.60%
Morgan Stanley	14.87%
Credit Suisse	9.68%
Deutsche Bank	6.88%
Bank of America Merrill Lynch	5.39%
UBS	4.94%
Citigroup	4.29%
Barclays	3.09%
National Financial	1.73%
Others	13.56%

Source: Eurekahedge

The figure below show the distribution of the number of prime brokers engaged by hedge funds based on their launch year. Generally small hedge funds start with one prime broker and subsequently work with additional prime brokers once they grow bigger, in order to raise more capital.

Figure 14: Number of prime brokers by launch year



Source: Eurekahedge

Administrators

State Street has seen its market share jump from 2.97% to 10.90% since 2007 that sent them to the second place, pushing CITCO down to third place. Meanwhile, BNY Mellon which was not part of top 10 from the end of 2007 took the top spot as of November 2018, by having an 11.11% market share. HSBC has shrunk its fund administration business over the past decade to focus on its core businesses, falling from the second place to the seventh place with 3.92% market share. Looking at the combined market share of the top ten administrators, we can see that the hedge fund administration industry has grown increasingly concentrated over the past decade, with only 35.92% of the total industry AUM managed by administrators outside the top ten table, down from the 54.50% figure by the end of 2007.

Tables 6a-6b: Market share of administrators by AUM

2008	
Administrator	Market Share
CITCO	12.41%
HSBC	9.47%
Citigroup	5.39%
Bank of New York	3.45%
State Street	2.97%
GlobeOp	2.59%
Northern Trust	2.36%
PFPC	2.31%
Morgan Stanley	2.30%
Goldman Sachs	2.25%
Others	54.50%

Source: Eurekahedge

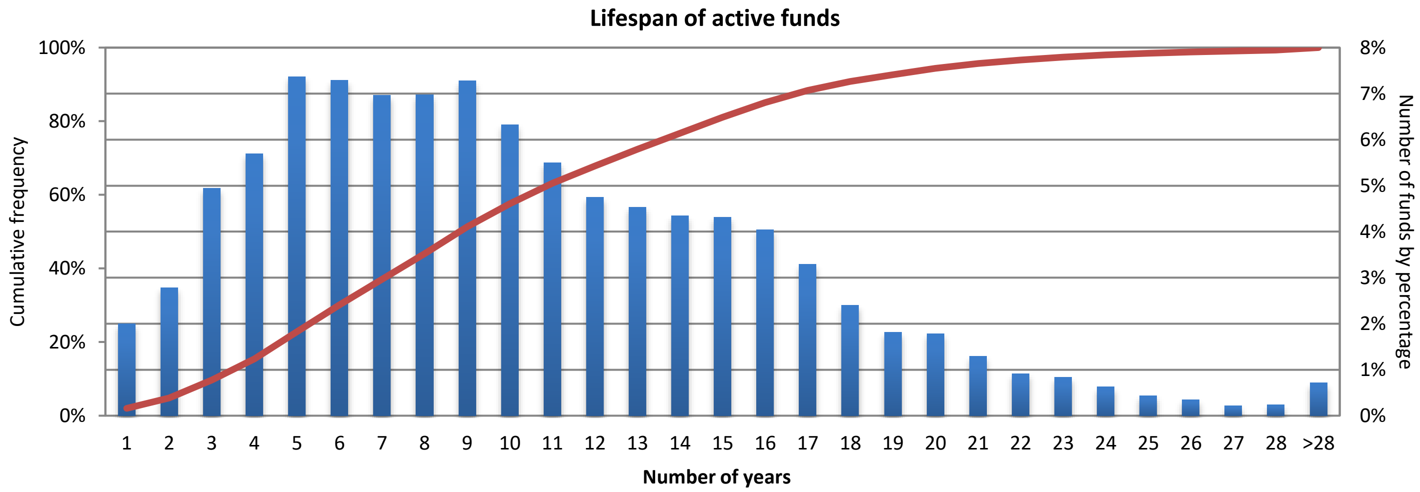
Nov 2018	
Administrator	Market Share
BNY Mellon	11.11%
State Street	10.90%
CITCO	10.81%
SS&C	9.22%
JPMorgan Chase	4.46%
Citigroup	3.94%
HSBC	3.92%
Custom House	3.56%
Northern Trust	3.12%
SEI Investment Services	3.04%
Others	35.92%

Source: Eurekahedge

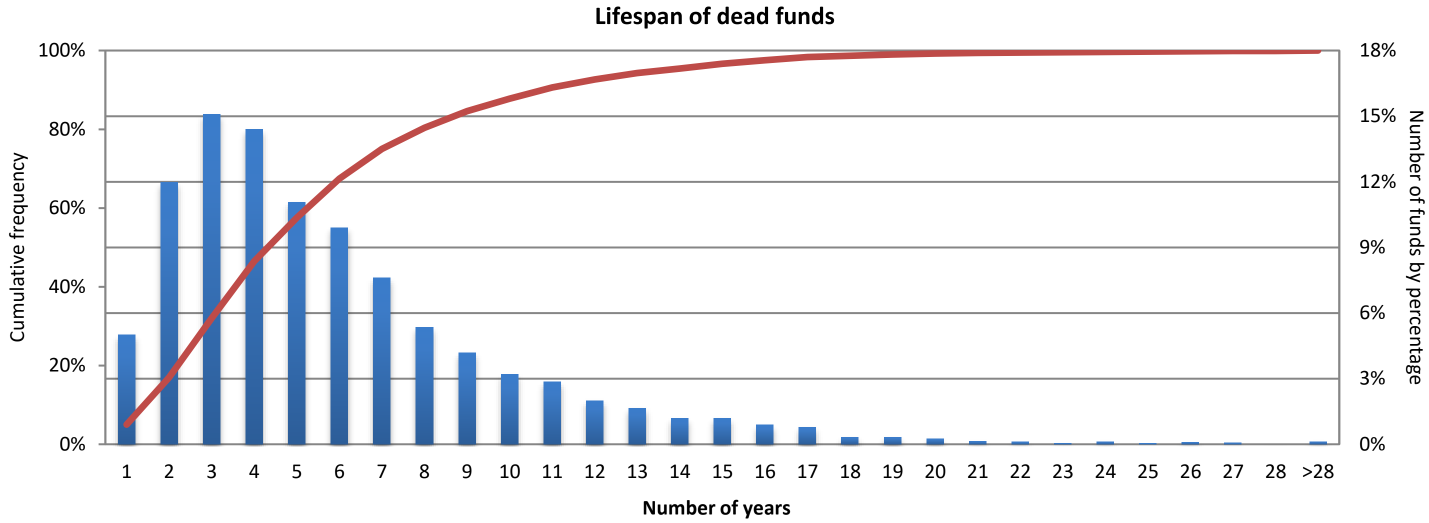
Lifespan of hedge funds

Roughly half of the currently active hedge funds have a track record of at least eight years. Hedge funds that live long enough to pass the 20 years mark only account for around 6% of the current global industry population. On the other hand, among the dead hedge funds recorded in Eurekahedge database, nearly 60% died within five years from their launch dates, possibly indicating the difficulty in raising assets and delivering acceptable returns for newly launched hedge fund firms.

Figures 15a-15b: Distribution of active and dead funds by their lifespan



Source: Eurekahedge



Source: Eurekahedge

Table 7 provides the lifespan distribution statistics for active and dead hedge funds within the Eurekahedge global hedge fund database. On average, active hedge funds have lived for 9.80 years, while dead funds survived for 5.35 years before closing down. A quarter of the dead hedge funds only survived for at most 2.50 years.

Table 7: Lifespan statistics of global hedge funds

	Lifespan of Active Funds (year)	Lifespan of Dead Funds (year)
Mean	9.80	5.35
First Quartile	5.25	2.50
Median	8.83	4.25
Third Quartile	13.58	6.92

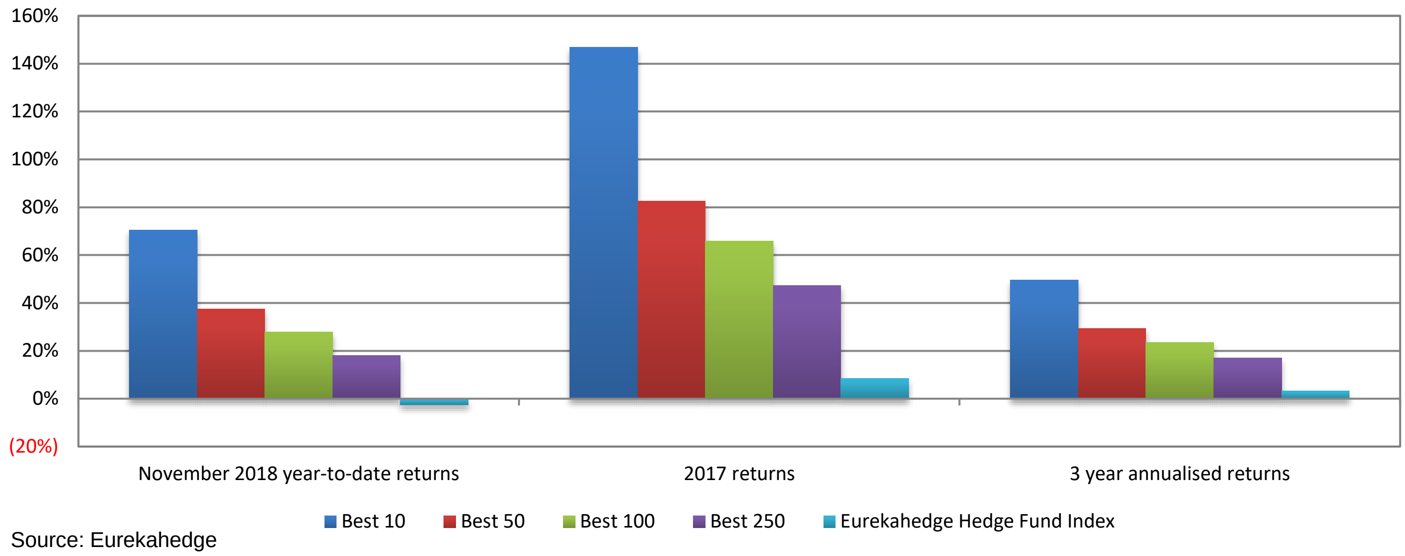
Source: Eurekahedge

Performance review

This section of the report will highlight the performance of the top hedge funds and their performance distribution as a whole, before going into a comparison of the global hedge fund industry against other investment vehicles - namely long-only funds and funds of hedge funds, with the MSCI[1] as the benchmark index. We further dissect the global hedge fund industry's performance by strategic and geographic mandates; taking into account their annualised returns and volatilities over the last five years. The section then moves on to assess hedge fund performance across various fund sizes.

[1] MSCI AC World IMI Index (Local)

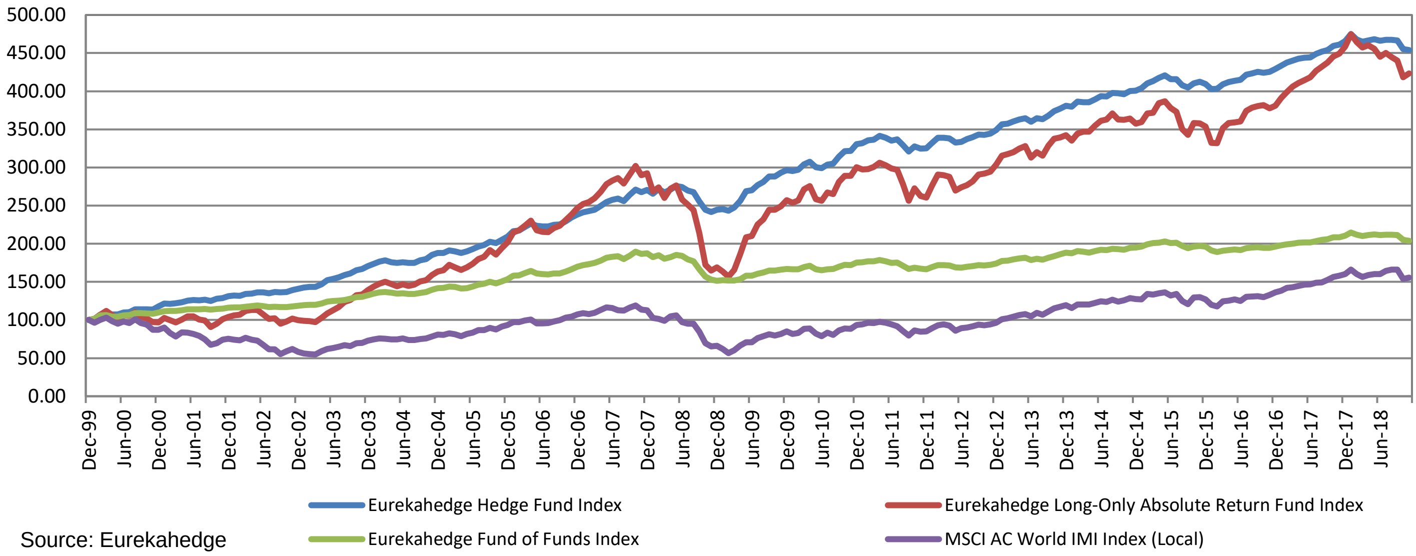
Figure 16: Performance of top hedge funds[2]



Source: Eurekahedge

In Figure 16, the average performance of the best performing hedge funds under three different metrics (current year-to-date returns, previous year returns, and annualised returns over the last three years) are placed side-by-side for comparison. As of November 2018, the average year-to-date returns of the top 10 performing hedge funds stood at 70.44% in spite of the global trade and political uncertainties and concerns about global economic slowdown which unfolded over the course of the year. For comparison, the average hedge funds represented by the *Eurekahedge Hedge Fund Index* yielded -2.53% over the same period. Over the last three years, the 10 best performing hedge funds generated 49.53% annualised return on average, while average hedge funds generated 3.25%.

Figure 17: Performance of hedge funds since 1999



Source: Eurekahedge

The *Eurekahedge Hedge Fund Index* has continued to outperform other investment vehicles, gaining 8.33% annually[3] since December 1999 compared to the *Eurekahedge Long-Only Absolute Return Fund Index* and the *Eurekahedge Fund of Funds Index* which generated 7.93% and 3.84% annualised returns respectively over the same time horizon. As seen in the figure, hedge funds have managed to live up to their value proposition of conserving the wealth of the clientele with the index registering only a slight dip during the financial crisis compared to its long only counterparts and the underlying market as represented by the MSCI index.

[2] Excludes hedge fund strategic mandates classified as "Others"
[3] As of November 2018

Hedge funds possess the unique ability to guard against market downturns while delivering consistent and excellent returns over the long term period, and this continually attracts investors who seek to improve the risk-return characteristics of their portfolios. Funds of hedge funds fell behind both hedge funds and long only funds, weighed by their double fee structure, but still managed to outperform the underlying global equity market.

Over the few years prior to 2018, long-only funds were catching up to hedge funds thanks to the bull equity market run around the globe. The downward protection employed by hedge funds to protect their assets during financial crises also acts as a hedge against the equity market, preventing hedge funds from reaping as much benefit from the market rally as their long only peers.

Table 8 summarises the key performance statistics of the three investment vehicles presented above. Long-only funds outperformed hedge funds in generating the best annualised returns over the three and five year periods. In terms of risk-adjusted returns long-only still topped on the table over the last three years but fell against the hedge funds over the last five period. However, it is worth noting that they have much steeper maximum drawdowns over the last five years at -14.22% compared to the -4.44% and -6.84% maximum drawdowns of hedge funds and fund of funds respectively.

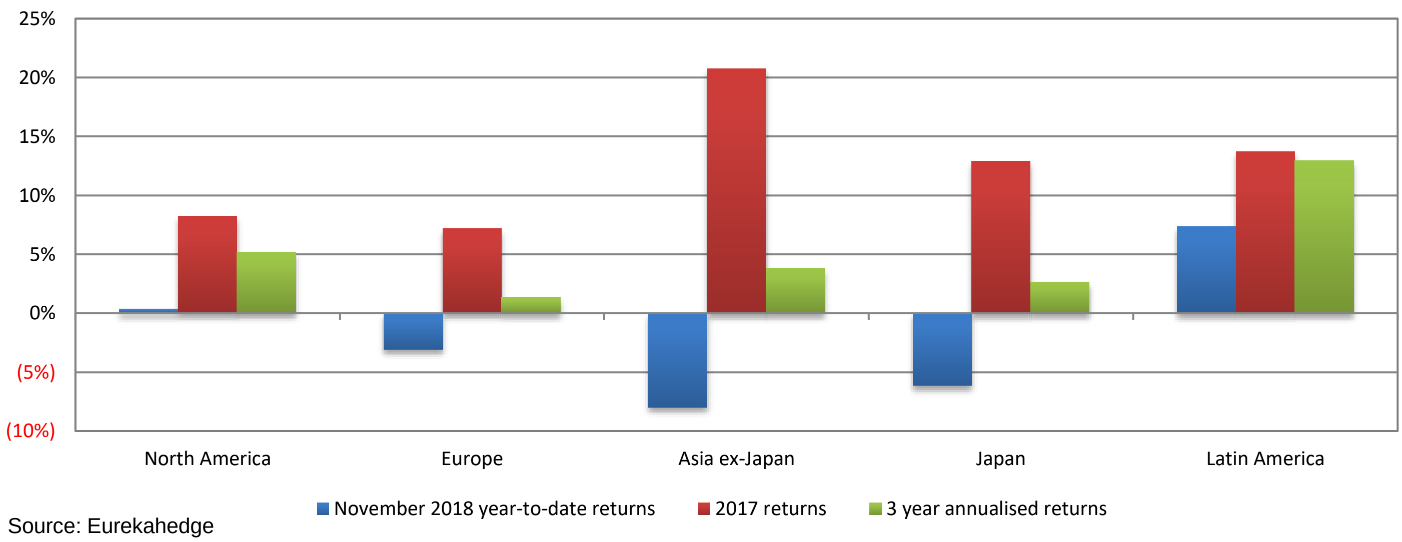
Table 8: Performance across alternative investment vehicles

	Eurekahedge Hedge Fund Index	Eurekahedge Long-Only Absolute Return Fund Index	Eurekahedge Fund of Funds Index	MSCI AC World IMI Index (Local)
November 2018 year-to-date returns	(2.53%)	(7.64%)	(3.02%)	(2.72%)
2017 returns	8.50%	20.39%	7.19%	17.51%
3 year annualised returns	3.25%	5.78%	1.13%	6.25%
3 year annualised volatility	3.09%	7.79%	3.39%	8.70%
3 year Sharpe ratio (RFR = 2%)	0.40	0.49	(0.26)	0.49
5 year annualised returns	3.79%	4.53%	1.83%	5.81%
5 year annualised volatility	3.07%	7.84%	3.34%	9.25%
5 year Sharpe ratio (RFR = 2%)	0.58	0.32	(0.05)	0.41
Maximum drawdown (5 years)	(4.44%)	(14.22%)	(6.84%)	(13.36%)

Source: Eurekahedge

Latin American managers topped the table with 7.36% year-to-date return as of November 2018, thanks to improving sentiment on the economic outlook of Brazil. While North American managers still managed to be in positive territory in spite of massive equity sell-off in October with 0.36% year-to-date return. Meanwhile, Asia ex-Japan and Japan managers ended at the bottom of the table with 7.98% and 6.12% year-to-date losses owing to the escalation of the US-China trade war and slowing Chinese economy growth. European managers also suffered 3.06% losses as a result of Italy budget concerns and Brexit uncertainties.

Figure 18: Performance across geographic mandates



Source: Eurekahedge

Table 9 provides detailed performance statistics across the five geographic mandates. Latin American mandate managed to outperform their peers in terms of annualised and risk-adjusted returns over the last three and five year period. However, European mandate had the lowest maximum drawdown, -4.40% over the last five years despite of its mediocre annualised return.

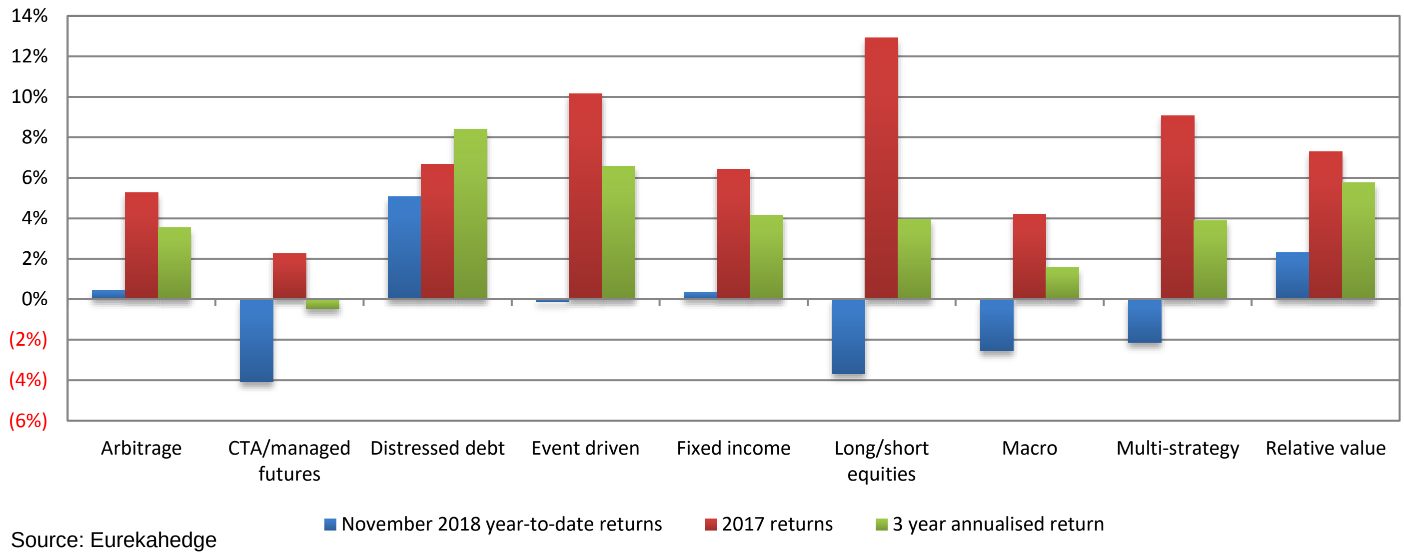
Table 9: Performance across geographic mandates

	North America	Europe	Asia ex-Japan	Japan	Latin America
November 2018 year-to-date returns	0.36%	(3.06%)	(7.98%)	(6.12%)	7.36%
2017 returns	8.26%	7.17%	20.75%	12.91%	13.71%
3 year annualised returns	5.17%	1.33%	3.80%	2.66%	12.95%
3 year annualised volatility	3.70%	3.47%	6.97%	4.73%	6.59%
3 year Sharpe ratio (RFR = 2%)	0.86	(0.19)	0.26	0.14	1.66
5 year annualised returns	4.96%	2.21%	5.73%	4.39%	8.30%
5 year annualised volatility	3.64%	3.50%	7.49%	4.34%	6.07%
5 year Sharpe ratio (RFR = 2%)	0.81	0.06	0.50	0.55	1.04
Maximum drawdown (5 years)	(5.05%)	(4.40%)	(12.68%)	(7.47%)	(5.57%)

Source: Eurekahedge

Similar to Figure 18, performance across strategic mandates were also a mixed bag. Distressed debt hedge funds took the lead with their 5.06% year-to-date return as of November 2018, followed by relative value mandate which gained 2.31% over the same period. Meanwhile, long/short equities and event-driven mandates which posted double-digit return in 2017 were down 3.69% and 0.11% respectively year-to-date, as the global equity sell-off over the recent months drags the former's performance. CTA/managed futures remained at the bottom of the table with 4.09% loss. Concern about a global economic slowdown and increasing oil stockpile in the US puts selling pressure of oil which resulted in an over 30% decline of its prices in a couple of months.

Figure 19: Performance across strategic mandates



Source: Eurekahedge

Table 10 provides detailed performance statistics across strategic mandates. In terms of annualised and risk-adjusted return, distressed debt hedge funds outperformed their peers over the last three year period, while relative value hedge funds topped the table over the last five year period. However, arbitrage hedge funds managed to post the smallest maximum drawdown of -2.35% in the previous five year period. For comparison, distressed debt and relative value hedge funds posted -10.11% and -3.39% maximum drawdowns respectively over the same period.

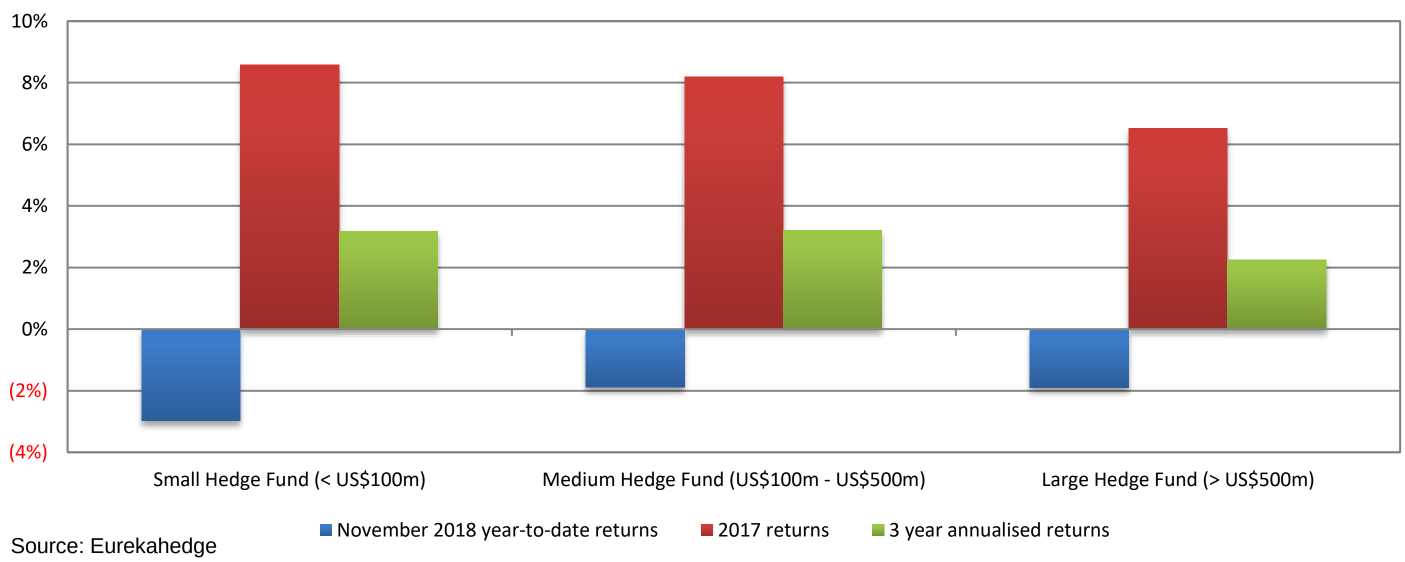
Table 10: Performance across strategic mandates

	Arbitrage	CTA/managed futures	Distressed debt	Event driven	Fixed income	Long/short equities	Macro	Multi-strategy	Relative value
November 2018 year-to-date returns	0.44%	(4.09%)	5.06%	(0.11%)	0.35%	(3.69%)	(2.54%)	(2.14%)	2.31%
2017 returns	5.27%	2.26%	6.68%	10.16%	6.43%	12.92%	4.21%	9.08%	7.29%
3 year annualised returns	3.53%	(0.49%)	8.42%	6.58%	4.15%	3.95%	1.57%	3.90%	5.76%
3 year annualised volatility	2.57%	4.66%	3.60%	4.19%	2.10%	4.78%	2.34%	2.87%	2.76%
3 year Sharpe ratio (RFR = 2%)	0.60	(0.53)	1.78	1.09	1.03	0.41	(0.18)	0.66	1.36
5 year annualised returns	3.79%	2.23%	4.79%	4.80%	3.82%	4.25%	2.73%	4.24%	4.98%
5 year annualised volatility	2.38%	4.67%	3.72%	4.50%	2.00%	4.74%	2.47%	2.94%	2.59%
5 year Sharpe ratio (RFR = 2%)	0.75	0.05	0.75	0.62	0.91	0.47	0.30	0.76	1.15
Maximum drawdown (5 years)	(2.35%)	(6.82%)	(10.11%)	(8.22%)	(2.96%)	(7.93%)	(4.18%)	(3.65%)	(3.39%)

Source: Eurekahedge

Figure 20 shows the performance comparison of hedge funds based on their size. In contrary to their positive performance over 2017, all fund size categories are in the negative territory in 2018. Medium hedge funds managing between US$100 million and US$500 million in assets managed to limit its losses at 1.90% as of November 2018 year-to-date, while large hedge funds managing more than US$500 million were trailing closely behind with 1.91% losses on average. On the other hand, small hedge funds managing up to US$100 million in assets, the group which generated the best return over 2017 were down 2.98% over the same period.

Figure 20: Performance across fund sizes



Source: Eurekahedge

Large hedge funds generated the lowest annualised volatilities over the last three and five year periods, as well as the smallest maximum drawdown, which is generally expected as their large AUM would give the fund managers wider spread of options to diversify their investments across asset classes and geographies. On the other hand, their large AUM might cost them agility as demonstrated by their lower returns compared to medium and small funds. In terms of risk-adjusted returns, medium hedge funds topped the table over both the three and five year periods, with 0.40 and 0.61 Sharpe ratios respectively.

Table 11: Performance across fund sizes

	Small Hedge Fund (< US$100m)	Medium Hedge Fund (US$100m - US$500m)	Large Hedge Fund (> US$500m)
November 2018 year-to-date returns	(2.98%)	(1.90%)	(1.91%)
2017 returns	8.58%	8.20%	6.53%
3 year annualised returns	3.18%	3.21%	2.26%
3 year annualised volatility	3.27%	3.00%	2.38%
3 year Sharpe ratio (RFR = 2%)	0.36	0.40	0.11
5 year annualised returns	3.67%	3.80%	3.13%
5 year annualised volatility	3.25%	2.97%	2.40%
5 year Sharpe ratio (RFR = 2%)	0.51	0.61	0.47
Maximum drawdown (5 years)	(4.84%)	(4.07%)	(3.46%)

Source: Eurekahedge

Table 12: Region return map

2011	2012	2013	2014	2015	2016	2017	2018
Latin America 2.08	Asia ex-Japan 12.03	Japan 28.08	Asia ex-Japan 9.55	Asia ex-Japan 7.62	Latin America 18.19	Asia ex-Japan 20.75	Latin America 7.36
North America 1.25	Latin America 10.95	Asia ex-Japan 12.26	North America 6.14	Japan 6.93	North America 8.15	Latin America 13.71	North America 0.36
Japan -1.51	North America 8.73	North America 11.52	Japan 5.28	Europe 4.90	Japan 1.69	Japan 12.91	Europe -3.06
Europe -5.17	Europe 7.41	Europe 10.2	Latin America 2.01	Latin America 0.88	Europe 0.42	North America 8.26	Japan -6.12
Asia ex-Japan -11.54	Japan 5.80	Latin America 1.31	Europe 0.96	North America 0.63	Asia ex-Japan -0.21	Europe 7.17	Asia ex-Japan -7.98

Source: Eurekahedge

Table 13: Strategy return map

2011	2012	2013	2014	2015	2016	2017	2018
Tail Risk 16.39	Distressed Debt 14.32	Equity Long Bias 19.82	Trend Following 13.49	Equity Market Neutral 7.39	Distressed Debt 14.49	Equity Long Bias 17.00	Distressed Debt 5.06
Long Volatility 12.83	Equity Long Bias 12.92	Long Short Equities 16.38	CTA/Managed Futures 9.67	FX 6.23	Event Driven 10.57	Long Short Equities 12.92	Relative Value 2.31
FX 8.84	Fixed Income 11.62	Distressed Debt 15.39	FX 6.02	Arbitrage 4.99	Relative Value 8.07	Event Driven 10.16	FX 0.74
Relative Value Volatility 5.46	Event Driven 10.89	Event Driven 14.17	Macro 5.41	Relative Value Volatility 4.47	Relative Value Volatility 7.44	Multi-Strategy 9.08	Arbitrage 0.44
Fixed Income 4.36	Relative Value 10.03	Short Volatility 9.53	Multi-Strategy 5.30	Long Short Equities 3.48	Commodity 6.95	Short Volatility 9.06	Fixed Income 0.35
Equity Market Neutral 2.47	Short Volatility 9.07	Multi-Strategy 8.14	Short Volatility 4.47	Multi-Strategy 2.51	Fixed Income 6.64	Relative Value 7.29	AI 0.00
CTA/Managed Futures 2.13	Relative Value Volatility 8.81	Equity Market Neutral 7.84	Fixed Income 4.26	Macro 2.22	Multi-Strategy 5.60	Distressed Debt 6.68	Event Driven -0.11
Arbitrage 1.17	Long Short Equities 8.59	Arbitrage 7.64	Relative Value 4.25	Relative Value 1.93	Equity Long Bias 5.25	Fixed Income 6.43	Relative Value Volatility -1.07
Distressed Debt 1.06	Multi-Strategy 7.88	Relative Value 7.11	Long Short Equities 3.89	Short Volatility 1.09	Short Volatility 5.09	Arbitrage 5.27	Equity Market Neutral -1.77
Trend Following 0.71	Arbitrage 7.34	Relative Value Volatility 6.04	Commodity 3.65	CTA/Managed Futures 0.95	Arbitrage 4.76	Macro 4.21	Multi-Strategy -2.14
Relative Value 0.50	Macro 4.84	Fixed Income 5.80	Equity Long Bias 3.44	Fixed Income 0.89	Macro 3.96	Equity Market Neutral 3.85	Macro -2.54
Macro 0.47	FX 3.95	Macro 4.50	Equity Market Neutral 3.36	AI 0.00	Long Short Equities 3.78	Relative Value Volatility 3.23	Long Short Equities -3.69
AI 0.00	Equity Market Neutral 3.19	FX 3.61	Arbitrage 3.00	Event Driven -0.19	CTA/Managed Futures 2.03	CTA/Managed Futures 2.26	CTA/Managed Futures -4.09
Multi-Strategy -1.18	CTA/Managed Futures 2.69	Trend Following 1.02	Event Driven 2.87	Equity Long Bias -0.52	FX 1.03	Commodity 1.27	Long Volatility -4.40
Short Volatility -1.20	Long Volatility 0.27	CTA/Managed Futures 0.67	Distressed Debt 1.75	Long Volatility -1.07	AI 0.00	Trend Following 0.34	Equity Long Bias -4.63
Commodity -1.51	AI 0.00	AI 0.00	Long Volatility 1.58	Trend Following -1.94	Equity Market Neutral -0.39	AI 0.00	Commodity -5.25
Event Driven -4.55	Commodity -0.61	Long Volatility -4.44	AI 0.00	Distressed Debt -4.23	Trend Following -1.02	FX -0.19	Tail Risk -6.82
Long Short Equities -5.85	Trend Following -1.86	Commodity -5.87	Relative Value Volatility -0.36	Commodity -4.63	Long Volatility -2.82	Long Volatility -10.95	Trend Following -7.91
Equity Long Bias -10.88	Tail Risk -21.21	Tail Risk -10.98	Tail Risk -3.22	Tail Risk -9.51	Tail Risk -11.81	Tail Risk -14.22	Short Volatility -8.05

Source: Eurekahedge

Peer analysis

The following charts were generated with Risk Shell. Contact ***advisor@eurekahedge.com*** to explore Risk Shell analytics and find out how it can help you in fund risk assessment and portfolio construction.

Figure 21: Peer analysis of hedge funds and other investment vehicles

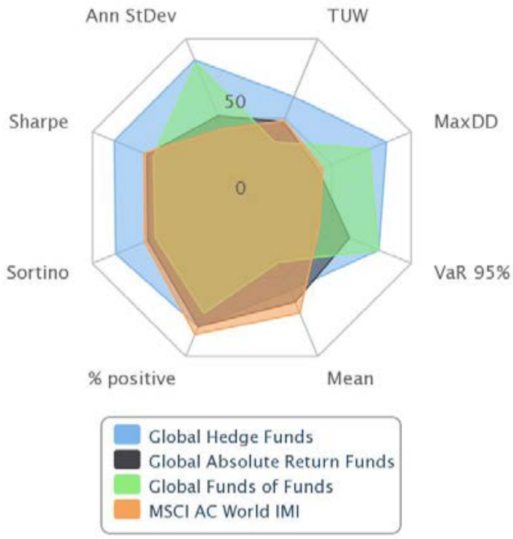
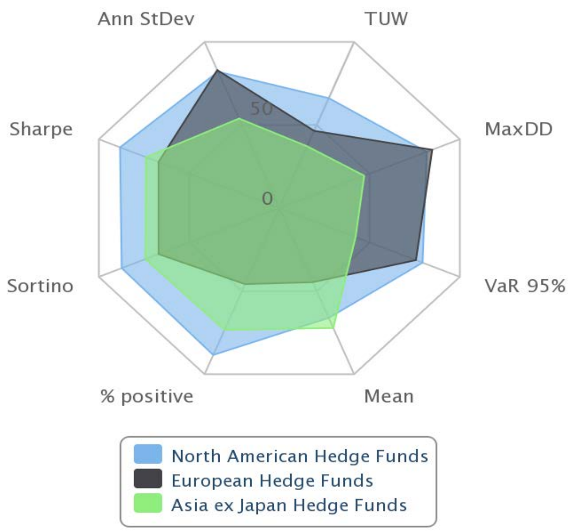


Figure 21 compares the risk-return statistics over the last five years of the *Eurekahedge Hedge Fund Index* and other investment vehicles against the entire Eurekahedge hedge fund database. Hedge funds fell behind their absolute return counterparts in capturing the region's equity market performance over the last few years. Nevertheless, hedge fund managers were able to provide better downside protection for their investors, as seen from their volatilities and drawdown.

Figure 22: Peer analysis of hedge funds across geographic mandates



Similarly, Figure 22 compares the risk-return statistics of the three largest geographic mandates within the global hedge fund industry. Asia ex-Japan mandate yielded the best mean returns compared to their peers focusing on North America and Europe, but fell behind in terms of volatilities. North American fund managers generated the best risk-adjusted returns as seen from their Sharpe and Sortino ratios among the three mandates, while on the other hand European fund managers ended up in the last place.

Figure 23: Peer analysis of hedge funds across strategic mandates

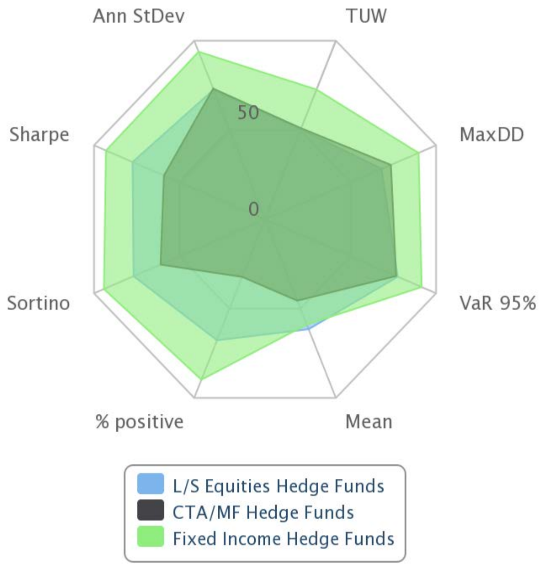


Figure 23 provides the peer analysis of hedge funds across three major strategic mandates within the industry. Over the last five years, long/short equities fund managers generated the best mean returns, but fixed income fund managers yielded better risk-adjusted returns as represented by their Sharpe and Sortino ratios, by virtue of their low volatilities which also contributed to their outperformance over other strategies in maximum drawdown, time underwater and percentage of positive months.

Figure 24: Peer analysis of hedge funds across fund sizes

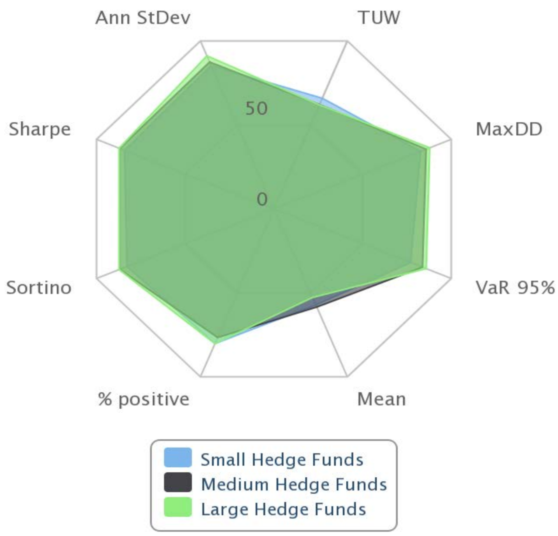


Figure 24 compares the risk-return statistics of hedge funds across different asset sizes. All three classifications of hedge funds generated very similar risk return profiles, with medium hedge funds maintaining slight edge over their bigger counterparts in terms of mean return. However, large hedge funds posted slightly better volatilities, maximum drawdown and value at risk compared to their smaller competitors.