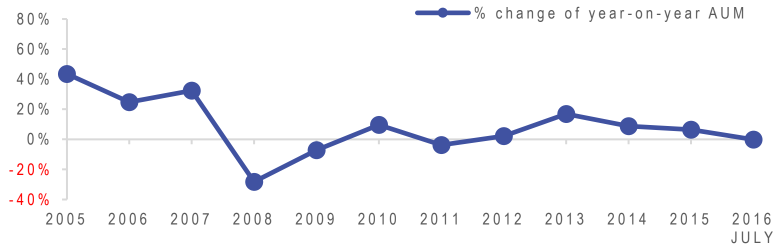
EUREKAHEDGE

# THE EUREKAHEDGE REPORT

## SEPTEMBER 2016

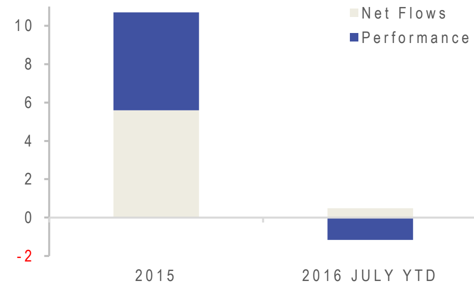
## ASIAN HEDGE FUNDS AUM (2005 – 2016 YTD)

**US$170.7 billion** AUM **25%** GLOBAL MANDATE



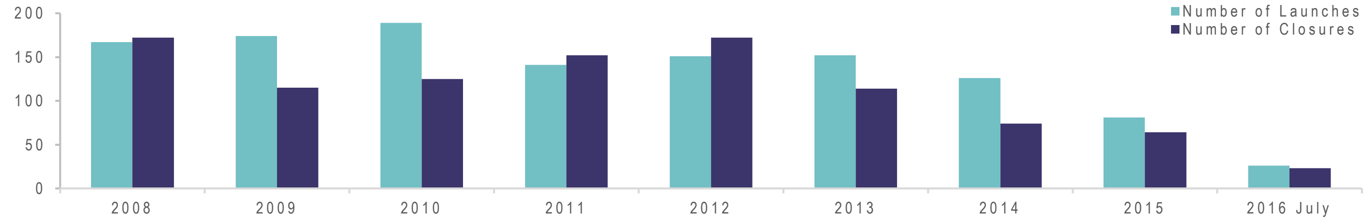

Source: Eurekahedge

## US$5.6 billion investor inflows in 2015
## US$0.5 billion investor inflows in 2016 YTD



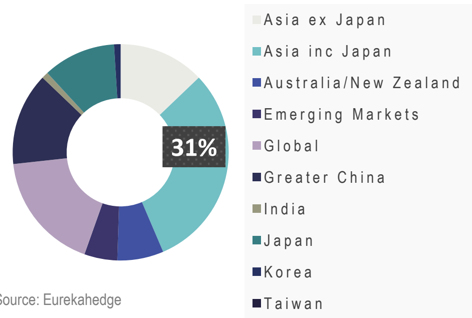

Source: Eurekahedge

## LAUNCHES AND CLOSURES SINCE 2008



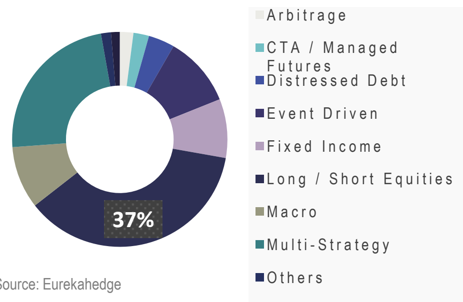

Source: Eurekahedge

## AUM BY GEOGRAPHY, 2016



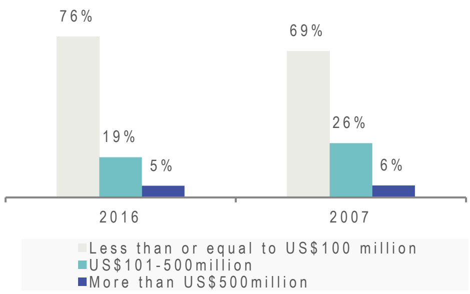

Source: Eurekahedge

## AUM BY STRATEGY, 2016



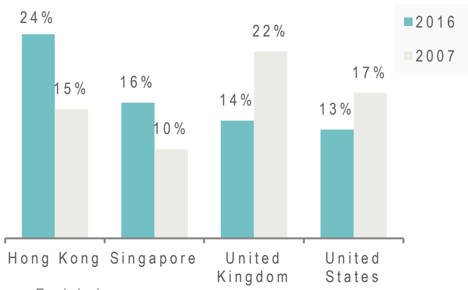

Source: Eurekahedge

## AUM BY FUND SIZE



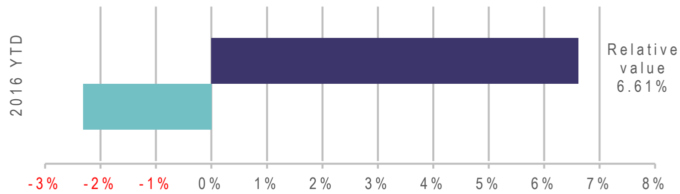

Source: Eurekahedge

## HEAD OFFICE LOCATIONS



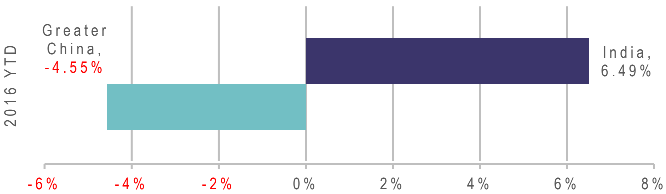

Source: Eurekahedge

## BEST AND WORST STRATEGY, 2016




Source: Eurekahedge

## BEST AND WORST REGIONAL MANDATE, 2016




Source: Eurekahedge

"Total AUM for the global hedge fund industry currently stands at US$2.26 trillion."

"Hedge funds witnessed four consecutive months of redemptions totaling US$23.8 billion, for the period ending August."

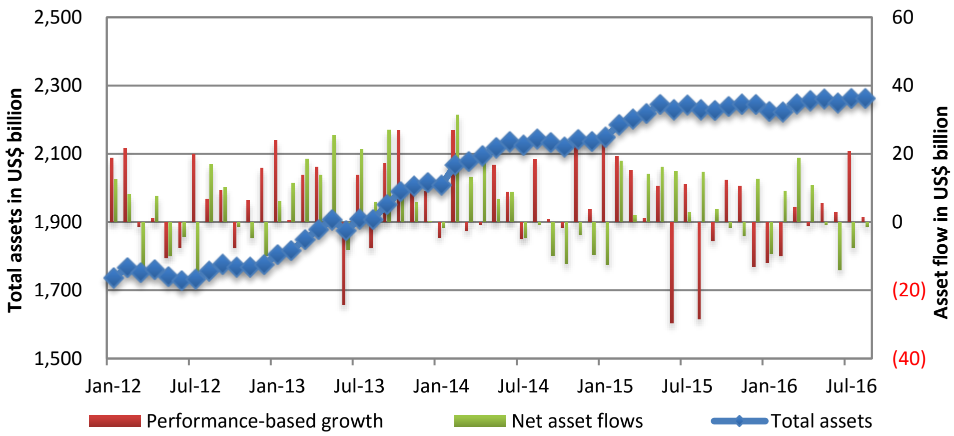
"Distressed debt hedge funds led gains across strategic mandates during the month, up 1.71%. CTA/managed futures hedge funds managers came in last, with losses of 1.91%."

# Introduction

The *Eurekahedge Hedge Fund Index* was up 0.03% in August[1] while underlying markets as represented by the MSCI World Index[2] gained 0.48% over the same period. Among regional mandates, Asia ex-Japan managers led the table, up 1.26% during the month followed by Latin American managers who were up 0.71%. Across strategies, distressed debt hedge funds led the table 1.71% returns followed by event driven hedge funds with 1.42%.

Final asset flow figures for July revealed that managers reported performance-based gains of US$20.7 billion while recording net asset outflows of US$7.5 billion. Preliminary data for August shows that managers have posted performance-based gains of US$1.4 billion while recording net outflows of US$1.4 billion, bringing the current assets under management (AUM) of the global hedge fund industry to a total of US$2.26 trillion.

**Figure 1a: Summary monthly asset flow data since January 2012**




Source: Eurekahedge

Key highlights for August 2016:

- Hedge funds witnessed four consecutive months of outflows with investor redemptions totalling US$23.8 billion during this period. Total hedge fund assets grew by US$17.6 billion over the past eight months with the industry's total assets currently standing at US$2.26 trillion.

- The US$800 billion long/short equity hedge fund space has seen investor redemptions of US$19.5 billion over four consecutive months ending August. The *Eurekahedge Long/Short Equity Hedge Fund Index* is up 1.50% for the year.

- The US$1.5 trillion North American hedge fund industry has recorded performance-based gains of US$19.3 billion over the past three months whilst seeing net investor redemptions of US$8.6 billion simultaneously. Among developed market mandates, North American managers lead up 4.54% for the year.

- Redemptions have been picking up pace in the US$531.1 billion European hedge fund industry which saw four consecutive months of outflows totaling US$13.7 billion in the period ending August. The *Eurekahedge European Hedge Fund Index* is down 0.95% for the year.

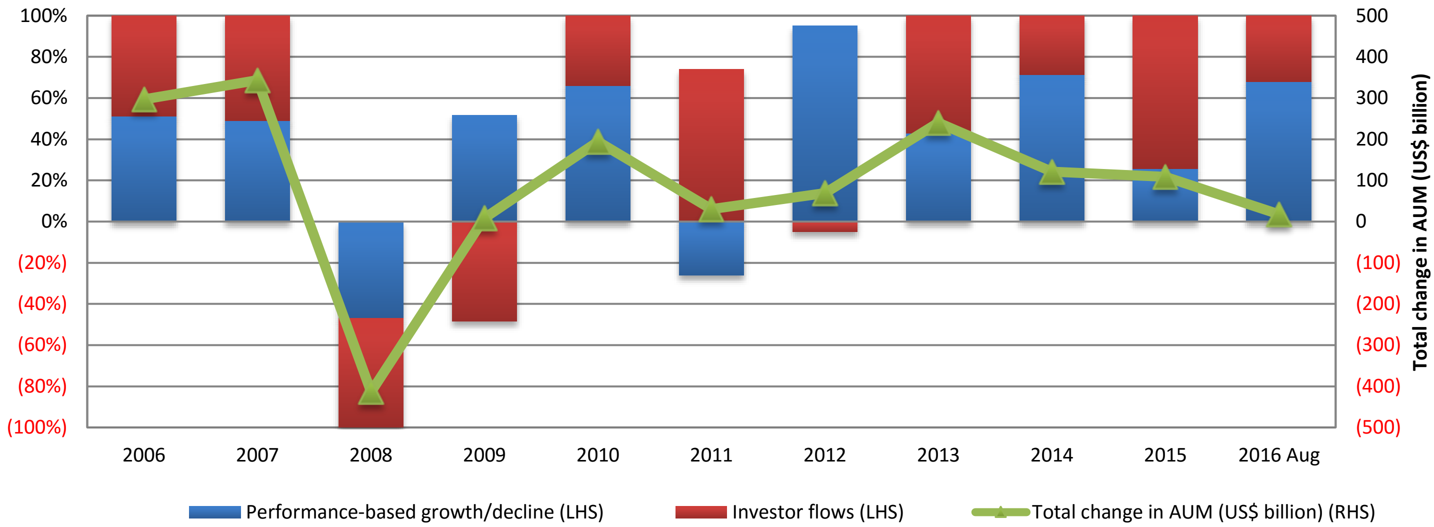
[1] Based on 51.32% of funds which have reported August 2016 returns as at 14 September 2016
[2] MSCI AC World Index (Local)

- Within Asia Pacific, Japan dedicated strategies have been the worst performing, down 4.51% while India dedicated mandates have posted the best returns up 7.02% for the year. Broad Asia ex-Japan mandates are up a modest 1.54% with dedicated Greater China mandates down 2.28% for the year.

- The US$252 billion CTA/managed futures hedge fund industry recorded the strongest interest from investors this year, seeing US$12.0 billion inflows as of August 2016 year-to-date. The *Eurekahedge CTA/Managed Futures Hedge Fund Index* is up 1.98% year-to-date with its sub-group of commodity-focused strategies gaining 7.99% while trend following strategies are up 2.34%.

- Singapore-based Asian hedge funds led the table up 2.08% while Japan and Hong Kong based Asian hedge funds are in the red among key Asian hedge fund centres, down 2.50% and 2.27% respectively for the year. More on this in the 2016 Key Trends in Asian Hedge Funds report

**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-based gains resulting in the industry's asset growing by half the levels seen in 2013. As of August 2016 year-to-date, performance-based gains of US$12.0 billion were recorded while investor inflows stood at US$5.6 billion over the same period.

**Table 1: Performance-based changes in assets and asset flows in August 2016**

| | Assets at start | Net growth (performance) | Net flows | Assets at end | % change in assets |
|---|---|---|---|---|---|
| ***Hedge funds*** | 2262.4 | 1.4 | (1.4) | 2262.4 | 0.00% |
| ***By geographic mandate*** | | | | | |
| Asia ex-Japan | 154.9 | 0.6 | 0.6 | 156.1 | 0.79% |
| Japan | 17.0 | (0.0) | (0.0) | 17.0 | (0.27%) |
| Europe | 533.2 | 0.1 | (2.2) | 531.1 | (0.39%) |
| Latin America | 55.1 | 0.0 | 0.0 | 55.2 | 0.10% |
| North America | 1502.1 | 0.8 | 0.1 | 1503.0 | 0.06% |
| ***By strategic mandate*** | | | | | |
| Arbitrage | 130.5 | 0.3 | 0.3 | 131.1 | 0.47% |
| CTA/managed futures | 258.6 | (6.5) | 0.7 | 252.8 | (2.24%) |
| Distressed debt | 55.5 | 1.3 | 0.2 | 57.0 | 2.64% |
| Event driven | 212.7 | 0.4 | 0.2 | 213.3 | 0.29% |
| Fixed income | 163.8 | 1.4 | (1.6) | 163.5 | (0.14%) |
| Long/short equities | 802.8 | 1.7 | (1.2) | 803.3 | 0.07% |
| Macro | 158.8 | (0.1) | (2.1) | 156.6 | (1.40%) |
| Multi-strategy | 360.4 | 2.4 | (1.0) | 361.8 | 0.40% |
| Relative value | 61.5 | 0.1 | 1.1 | 62.8 | 2.05% |
| Others | 57.9 | 0.4 | 2.0 | 60.3 | 4.04% |
| ***By fund size (US$ millions)*** | | | | | |
| ≤20 | 17.4 | (0.0) | 0.1 | 17.5 | 0.30% |
| <20-≤50 | 39.5 | 0.0 | 0.1 | 39.7 | 0.39% |
| <50-≤100 | 54.0 | 0.0 | 0.1 | 54.1 | 0.12% |
| <100-≤250 | 223.2 | 0.7 | 0.4 | 224.3 | 0.52% |
| <250-≤500 | 303.5 | (0.0) | 0.5 | 304.1 | 0.18% |
| <500-≤1000 | 464.2 | 0.2 | 0.0 | 464.5 | 0.06% |
| >1000 | 1160.5 | 0.5 | (2.7) | 1158.3 | (0.19%) |

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

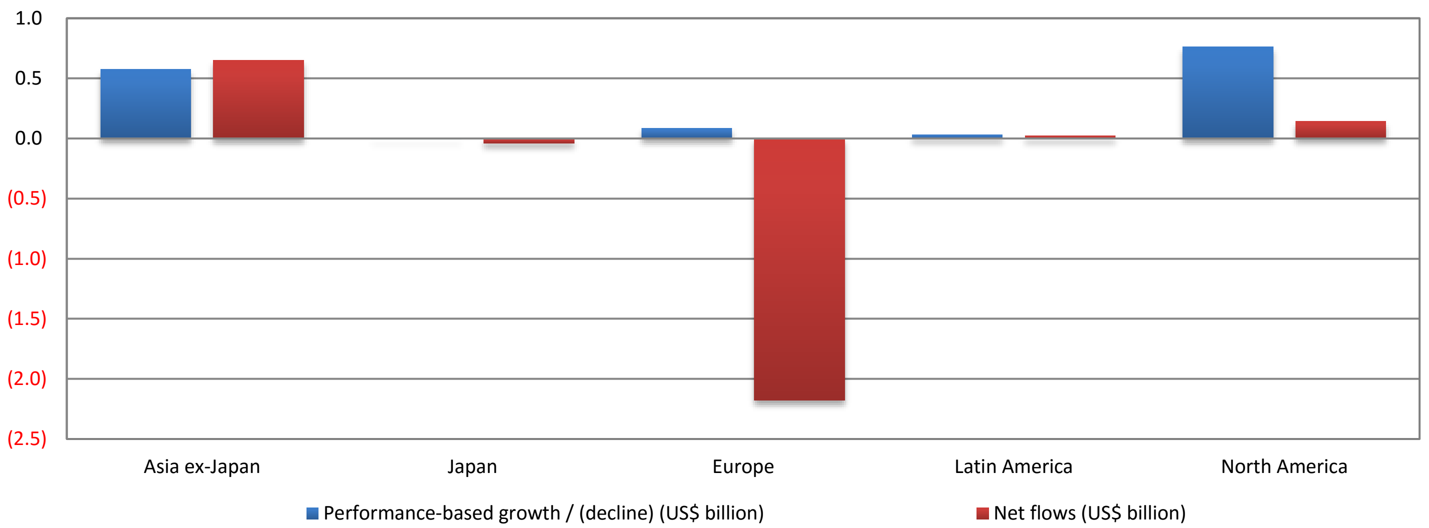
Source: Eurekahedge

North American funds recorded net asset inflows of US$0.1 billion while posting performance-based gains of US$0.8 billion during the month of August. Net asset inflows to the region since the start of the year stand at US$4.8 billion, while managers have posted performance-based gains of US$14.3 billion over this time period. Total assets in North American hedge funds currently stand at US$1.50 trillion as of 2016 year-to-date. North America mandated equity market neutral and CTA/managed futures funds have seen strong inflows in 2016.

European fund managers recorded net outflows of US$2.2 billion, while registering performance-based gains of US$0.1 billion during the month. Total assets in European hedge funds stand at US$531.1 billion. On a year-to-date basis, European hedge fund managers have seen performance-based losses of US$4.1 billion while net inflows stood at US$0.1 billion. European hedge funds have been facing four consecutive months of redemptions ending August 2016, with redemptions totalling US$13.7 billion over the last four months.

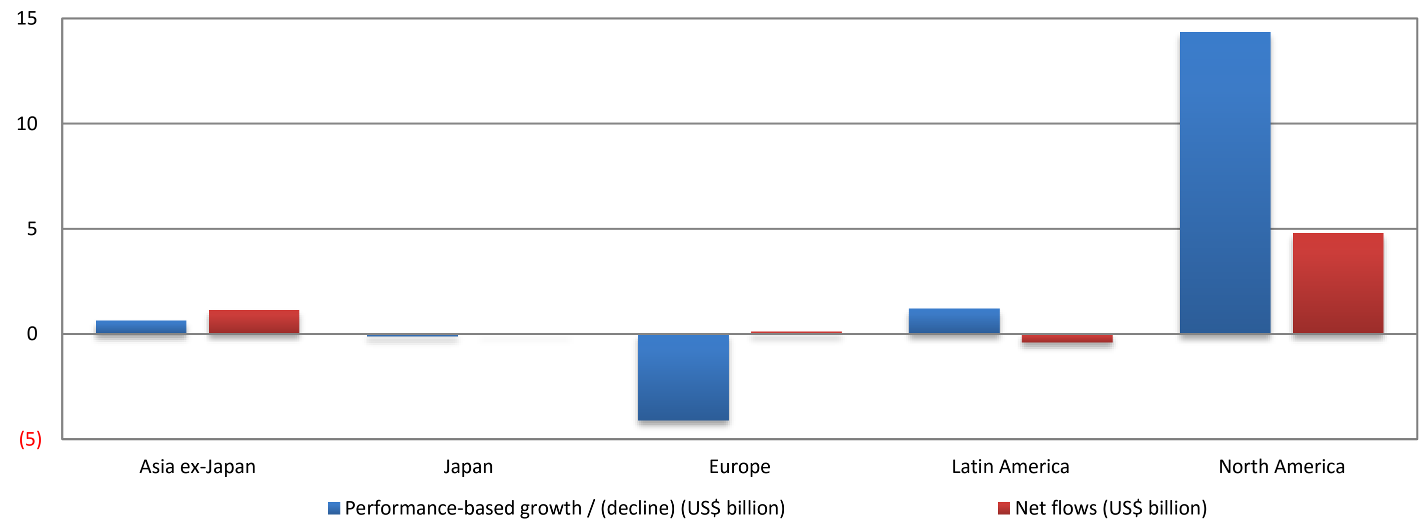
Asian funds saw inflows of roughly US$0.6 billion in August with Asia ex-Japan funds posting performance-based gains of US$0.6 billion though Japanese funds were flat in August. On a year-to-date basis, Japanese managers have seen performance-based losses of US$0.1 billion while US$0.6 billion of performance-based gains were recorded for Asia ex-Japan managers.

**Figure 2: August 2016 asset flow by geographic mandate**




Source: Eurekahedge

**Figure 3: 2016 YTD asset flows by geographic mandate**




Source: Eurekahedge

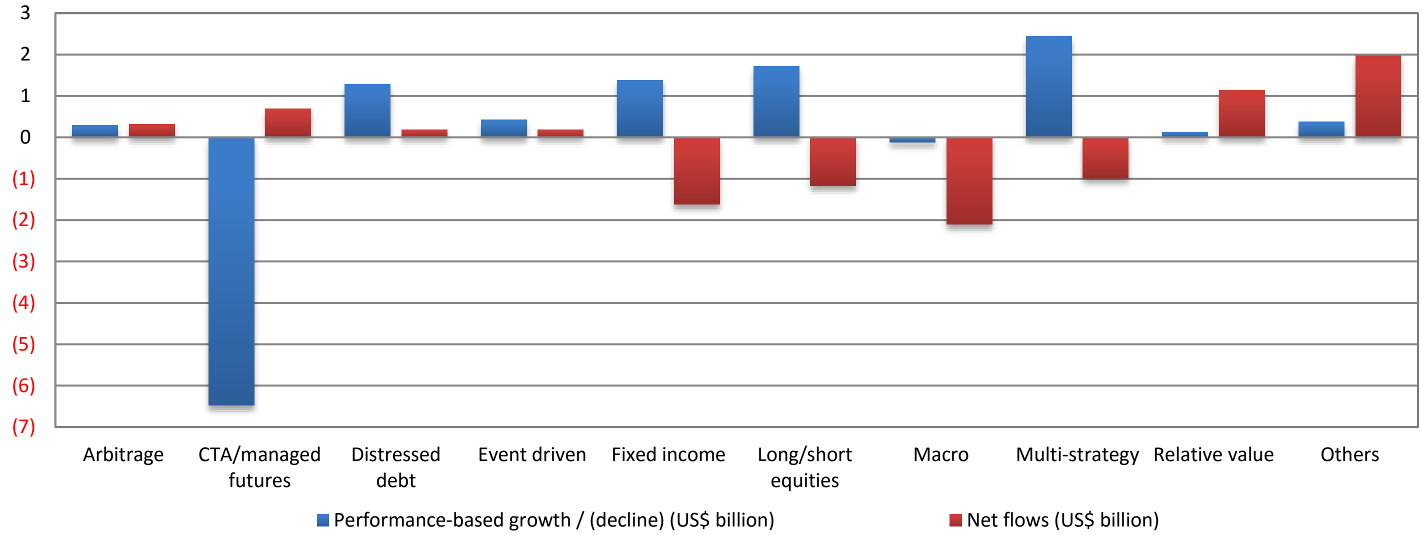
Figure 4 gives a breakdown of performance-based gains and net flows for the hedge fund industry by various strategies for the month of August. Macro mandated hedge funds saw the steepest decline in net flows this month, down US$2.1 billion. This is the strategy's fourth consecutive month of outflows, with redemptions totalling US$7.4 billion over the past four months alone. Fixed income, long/short equities and multi-strategy also witnessed investor redemptions this month, with fixed income hedge funds seeing outflows of US$1.6 billion while long/short equities and multi-strategy hedge funds seeing outflows of US$1.2 billion and US$1.0 billion respectively. On the other hand, relative value and CTA/managed futures hedge funds saw modest investor inflows of US$1.1 billion and US$0.7 billion respectively.

On a 2016 year-to-date basis, CTA/managed futures hedge funds recorded the most inflows (US$12.0 billion) followed by long/short equities and multi-strategy hedge funds with inflows of US$7.8 billion and US$7.2 billion respectively. Relative value mandated hedge funds also saw year-to-date inflows of US$4.4 billion. On the other hand, fixed income hedge funds saw the steepest year-to-date redemptions, with outflows totalling US$11.7 billion, with the month of August being its eighth consecutive month of investor redemptions. Event driven hedge funds have also seen outflows on a year-to-date basis, down US$7.3 billion.

Performance figures were mixed across all strategic mandates for the month, with multi-strategy hedge funds emerging as clear winners. Multi-strategy hedge fund managers saw performance-based gains of US$2.4 billion during the month, followed by long/short equities and fixed income hedge funds with gains of US$1.7 billion and US$1.4 billion respectively. Distressed debt, arbitrage and relative value hedge funds reported performance gains of US$1.3 billion, US$0.3 billion and US$0.1 billion respectively. On the other hand, CTA/managed futures hedge funds posted the steepest decline in performance-based figures, down US$6.5 billion for the month of August alone. This is followed by macro mandated hedge funds which posted performance-based losses of US$0.1 billion over the same period.

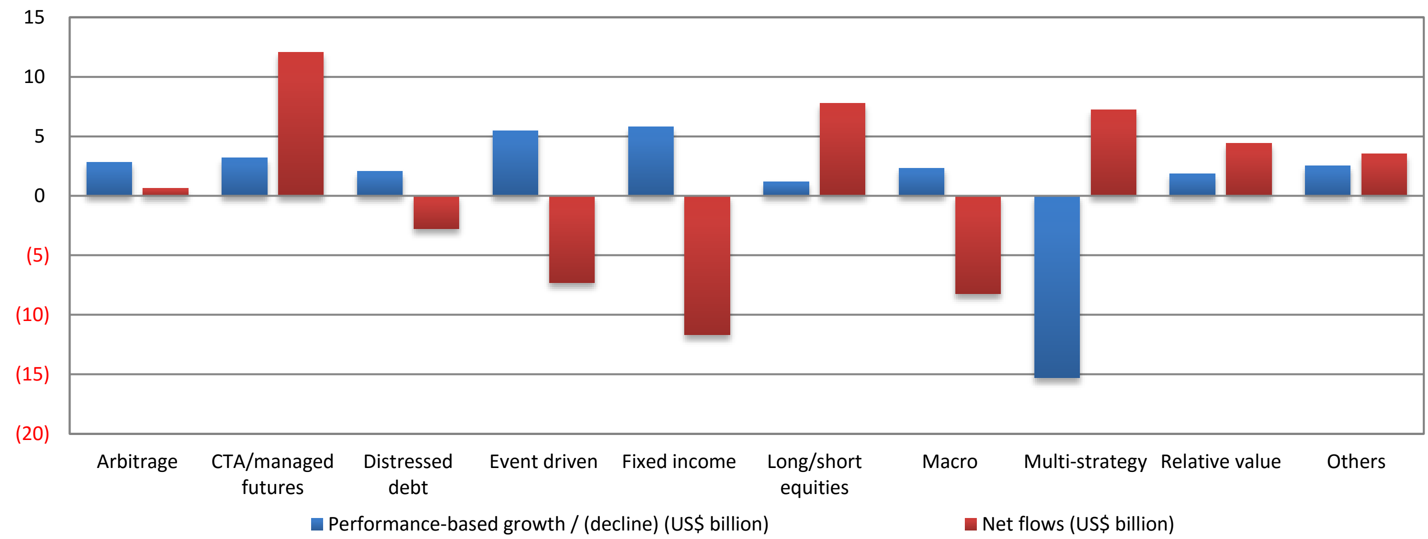
On a year-to-date basis, multi-strategy managers reported US$15.3 billion in performance-based losses, the steepest decline in performance figures among all strategic mandates. All other strategic mandates posted positive year-to-date performance figures with fixed income witnessing the best performance-based gains of US$5.8 billion over the past eight months. This is followed by event driven hedge funds which saw gains of US$5.5 billion. CTA/managed futures hedge funds posted performance-based gains of US$3.2 billion, followed by arbitrage, macro and distressed debt hedge funds which posted gains of US$2.8 billion, US$2.3 billion and US$2.1 billion respectively. Relative value and long/short equities mandated hedge funds also posted gains of US$1.9 billion and US$1.2 billion over the past eight months respectively.

**Figure 4: August 2016 asset flow by strategy employed**




Source: Eurekahedge

**Figure 5: 2016 YTD asset flow by strategy employed**




Source: Eurekahedge

**Table 2: Performance-based changes in assets and asset flows 2016**

| | Assets at start | Net growth (performance) | Net flows | Assets at end | % change in assets |
|---|---|---|---|---|---|
| ***Hedge funds*** | 2244.8 | 12.0 | 5.6 | 2262.4 | 0.78% |
| ***By geographic mandate*** | | | | | |
| Asia ex-Japan | 154.3 | 0.6 | 1.1 | 156.1 | 1.14% |
| Japan | 17.1 | (0.1) | 0.0 | 17.0 | (0.50%) |
| Europe | 535.1 | (4.1) | 0.1 | 531.1 | (0.75%) |
| Latin America | 54.4 | 1.2 | (0.4) | 55.2 | 1.46% |
| North America | 1483.9 | 14.3 | 4.8 | 1503.0 | 1.29% |
| ***By strategic mandate*** | | | | | |
| Arbitrage | 127.7 | 2.8 | 0.6 | 131.1 | 2.69% |
| CTA/managed futures | 237.5 | 3.2 | 12.0 | 252.8 | 6.41% |
| Distressed debt | 57.7 | 2.1 | (2.8) | 57.0 | (1.23%) |
| Event driven | 215.1 | 5.5 | (7.3) | 213.3 | (0.86%) |
| Fixed income | 169.4 | 5.8 | (11.7) | 163.5 | (3.48%) |
| Long/short equities | 794.3 | 1.2 | 7.8 | 803.3 | 1.13% |
| Macro | 162.5 | 2.3 | (8.2) | 156.6 | (3.64%) |
| Multi-strategy | 369.9 | (15.3) | 7.2 | 361.8 | (2.18%) |
| Relative value | 56.5 | 1.9 | 4.4 | 62.8 | 11.14% |
| Others | 54.2 | 2.5 | 3.5 | 60.3 | 11.19% |
| ***By fund size (US$ millions)*** | | | | | |
| ≤20 | 17.0 | 0.2 | 0.2 | 17.5 | 2.68% |
| <20-≤50 | 38.2 | 0.6 | 0.9 | 39.7 | 3.98% |
| <50-≤100 | 52.9 | 1.0 | 0.2 | 54.1 | 2.21% |
| <100-≤250 | 220.0 | 3.5 | 0.8 | 224.3 | 1.98% |
| <250-≤500 | 296.2 | 2.6 | 5.3 | 304.1 | 2.67% |
| <500-≤1000 | 457.9 | 2.0 | 4.5 | 464.5 | 1.43% |
| >1000 | 1162.7 | 2.0 | (6.4) | 1158.3 | (0.38%) |

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

Source: Eurekahedge

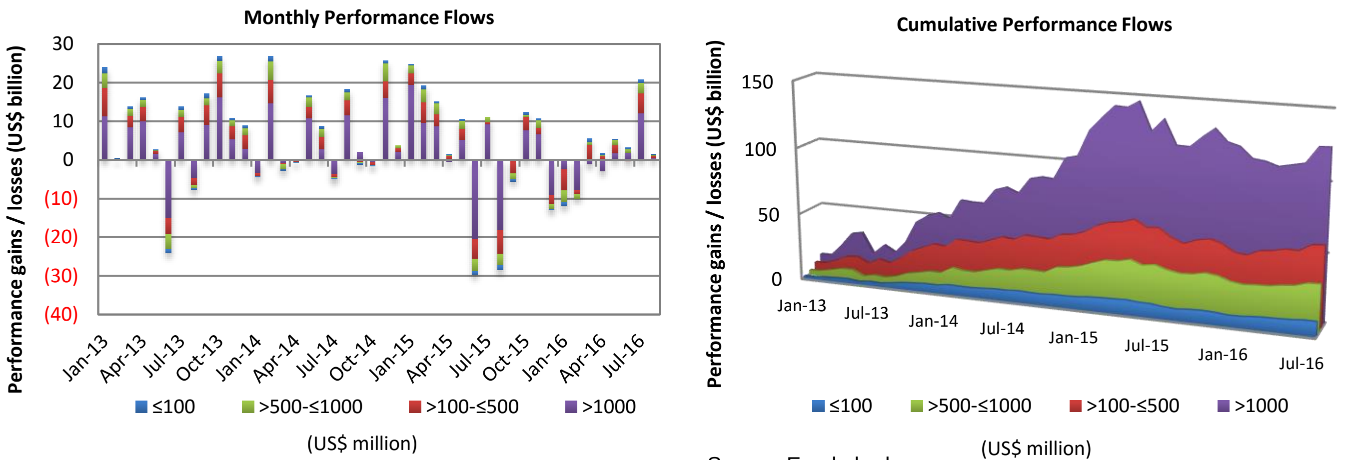
Over the 44 month period depicted in Figures 6 and 7, the global hedge fund industry has raked in performance-based gains of US$228.95 billion, with billion dollar hedge funds accounting for over half of these gains – delivering cumulative performance-based gains of US$124.54 billion since the start of 2013. Funds managing assets in the US$100 million to US$500 million range have seen performance-based gains of US$59.25 billion while those managing assets below US$100 million have delivered gains of US$10.75 billion over the period under consideration.

A similar picture emerges based on net asset flows, with the global hedge fund industry attracting US$258.73 billion since January 2013, out of which billion dollar hedge funds accounted for US$178.44 billion of these net capital allocations, while funds with assets under US$500 million collectively recorded net asset inflows of US$8.02 billion over this period.

Funds less than US$500 million collectively saw US$70.00 billion in performance-based gains and US$8.02 billion in investor inflows as of August 2016, which compares to US$34.42 billion in performance-based gains and US$72.27 billion in investor inflows for funds managing between US$500 million to less than US$1 billion. This also compares to US$124.54 billion in performance-based gains and US$178.44 billion in investor inflows for funds managing upwards of US$1 billion over the same period. When compared against 2014, we noticed that billion dollar hedge funds are more successful at capital-raising with more than half of the assets raised contributed to investor inflows.

Over the past three months, billion dollar hedge funds recorded net outflows of US$20.37 billion whereas hedge funds managing between US$100 million to US$1,000 million saw outflows of US$3.20 billion. Smaller-sized hedge funds (AUM less than US$100 million) also saw inflows of US$0.55 billion over the same period. In terms of performance-based gains and losses, billion dollar hedge funds saw performance-based gains of US$14.46 billion while funds managing US$100 million to US$1000 million also saw performance-based gains totalling US$9.48 billion over the past three months ending August. Smaller-sized hedge funds (AUM less than US$100 million) saw performance-based gains (US$1.16 billion) over the past three months.

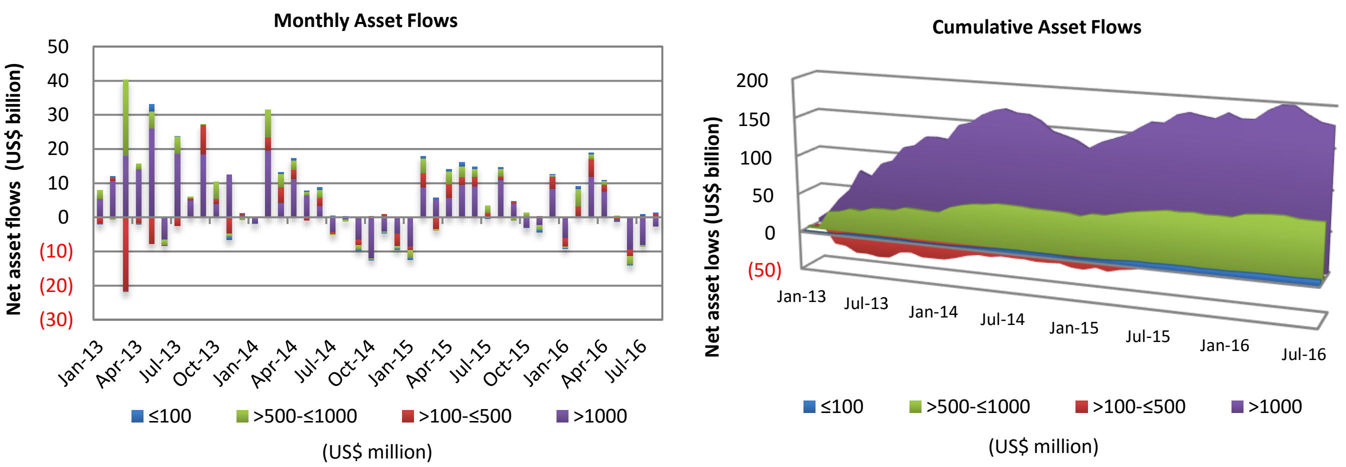
**Figure 6: Performance based gains/losses by fund size**




Source: Eurekahedge

Source: Eurekahedge

**Figure 7: Net asset flows by fund size**




Source: Eurekahedge

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"Close to 60% of the underlying constituent hedge funds for the *Eurekahedge Hedge Fund Index* were in positive territory for the month, with majority of them being long/short equity mandated."

"Asia ex-Japan hedge funds led the table among regional mandates, gaining 1.26% during the month."

"The *CBOE Eurekahedge Short Volatility Hedge Fund Index* gained 0.76% as volatility levels declined during the course of the month."

"Distressed debt hedge fund managers led performance for August and 2016 year-to-date, up 1.71% and 7.79%."

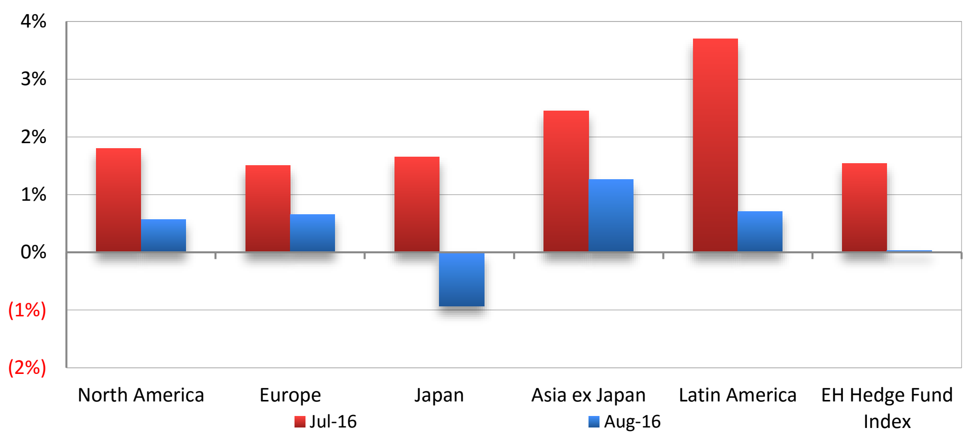
"The *Eurekahedge CTA/Managed Futures Hedge Fund Index* declined 1.91% during the month with underlying trend-following and commodity-focused hedge funds losing 2.92% and 1.09% respectively."

# Introduction

Hedge funds were up a marginal 0.03% in August[1], with much of the weakness being led by underlying CTA/managed futures and macro mandated hedge funds. Meanwhile, underlying markets, as represented by the MSCI AC World Index (Local) grew 0.48%. While August was a relatively quiet month, central bank actions dominated the trading scene especially towards the end of the month. This affected much of the trend-following and commodity-focused hedge funds, both of which are sub-sets of the broader CTA/managed futures strategy. Nonetheless, close to 60% of the underlying constituent hedge funds for the *Eurekahedge Hedge Fund Index* were in positive territory for the month, with majority of them being long/short equity mandated. Asia ex-Japan hedge funds led performance among regional mandates, up 1.26% in August, followed by Latin American hedge funds which were up 0.71%. While among strategic mandates, distressed debt managers topped the table, gaining 1.71% during the month. On the other hand, CTA/managed futures hedge funds languished, declining 1.91%, followed by macro-mandated hedge funds which fell 0.32% over the same period.

On a year-to-date basis, hedge funds were up 2.58% with close to 60% of managers in positive territory. Roughly 14% of these managers posted year-to-date returns in excess of 10% over the past eight months, with 40% of these managers being long/short equity mandated, while another 20% are CTA/managed futures mandated hedge funds.

**Figure 1: August 2016 and July 2016 returns across regions**

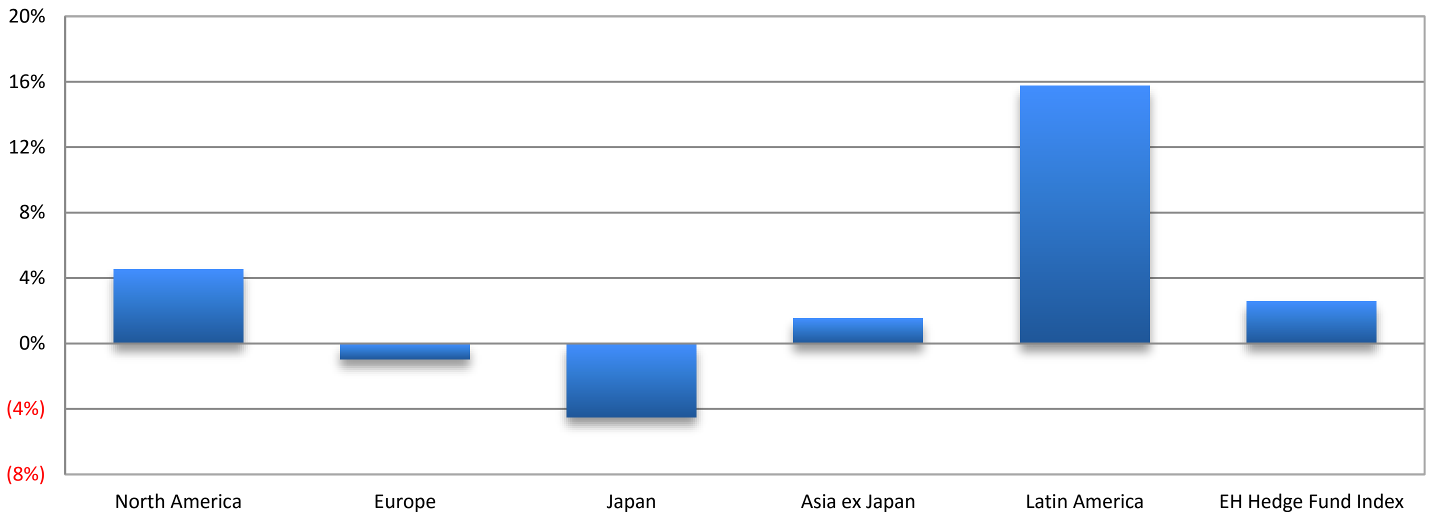



Source: Eurekahedge

All regional mandates were up in August with the exception of Japan-mandated hedge funds which declined 0.93% during the month. On the other hand, Asia ex-Japan hedge funds led the table among regional mandates, gaining 1.26%. Latin American hedge funds were also up in August, gaining 0.71%, followed by European and North American hedge funds which grew 0.66% and 0.57% respectively. On a year-to-date basis, Latin American hedge funds led the table, up 15.75% followed by North American and Asia ex-Japan hedge funds which gained 4.54% and 1.54% respectively. On the other hand, European and Japanese-mandated hedge funds lost 0.95% and 4.51% respectively year-to-date.

[1] Based on 51.32% of funds which have reported August 2016 returns as at 14 September 2016

**Figure 2: 2016 year-to-date returns across regions**



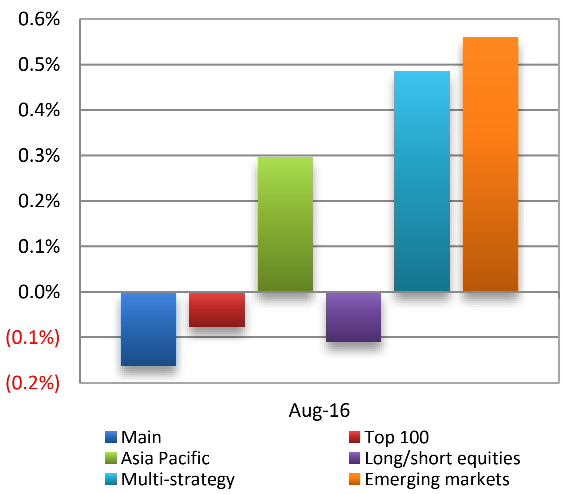

Source: Eurekahedge

# Mizuho-Eurekahedge Asset Weighted Index

The asset weighted *Mizuho-Eurekahedge Index* was down in August, declining 0.16%. It should also be noted that the *Mizuho-Eurekahedge Index* is US dollar dominated, and during months of strong US dollar gains, the index results include the currency conversion loss for funds that are denominated in other currencies. The US Dollar Index gained 0.52% in August.

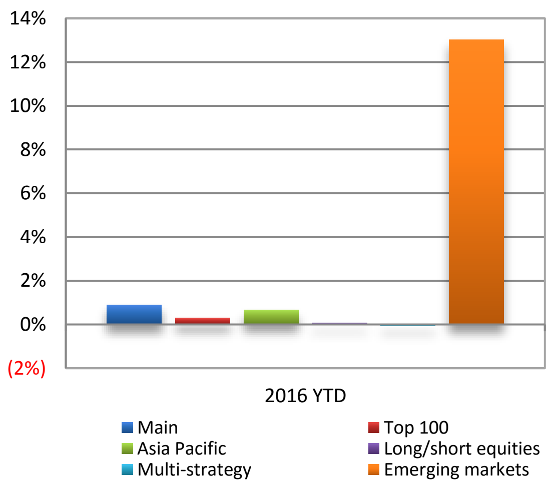
Performance was mixed across the board among the suite of *Mizuho-Eurekahedge Indices* with the *Mizuho-Eurekahedge Emerging Markets Index* posting the best gains, up 0.56% during the month. This is followed by the *Mizuho-Eurekahedge Multi-Strategy Index* which gained 0.49% over the same period. The *Mizuho-Eurekahedge Asia Pacific Index* was also up 0.30% while the *Mizuho-Eurekahedge Long Short Equities Index* lost 0.11% over the same period. The *Mizuho-Eurekahedge Top 100 Index* also languished in August, declining by 0.08%. As at 2016 year-to-date, the *Mizuho-Eurekahedge Emerging Markets Index* led the tables, up 13.03% while the *Mizuho-Eurekahedge Multi-Strategy Index* posted a marginal decline of 0.08% over the same time period.

**Figure 3a: *Mizuho-Eurekahedge Indices***
**August 2016 returns**




Source: Eurekahedge

**Figure 3b: *Mizuho-Eurekahedge Indices***
**2016 year-to-date returns**




Source: Eurekahedge

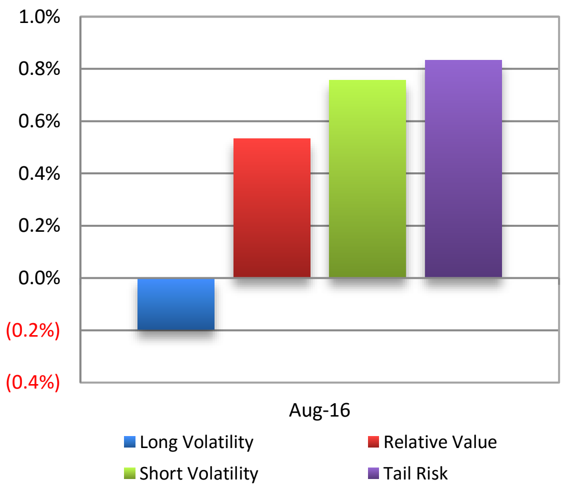
# CBOE Eurekahedge Volatility Indexes

The *CBOE Eurekahedge Volatility Indexes* comprises 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.

During the month of August, the *CBOE Eurekahedge Tail Risk Volatility Hedge Fund Index* led the tables with gains of 0.83%, followed by the *CBOE Eurekahedge Short Volatility Hedge Fund Index* and the *CBOE Relative Value Volatility Hedge Fund Index* which were up 0.76% and 0.53% respectively this month. On the other hand, the *CBOE Eurekahedge Long Volatility Hedge Fund Index* was down 0.20% during the month as volatility levels, represented by the CBOE VIX were in the lows in August. It should be observed though that tail risk and long volatility strategies are designed to deliver outsized returns during periods of extreme market volatility thereby providing overall portfolio level protection, hence losses can be expected during normal market conditions.

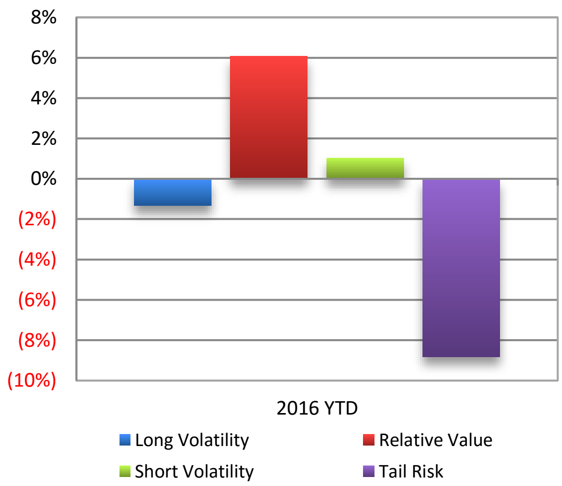
The *CBOE Eurekahedge Relative Value Volatility Hedge Fund Index* posted the best year-to-date gains, up 6.07%. This is followed by the *CBOE Eurekahedge Short Volatility Index* which gained 1.03% over the same period. On the other hand, the *CBOE Eurekahedge Tail Risk Hedge Fund Index* posted the steepest decline, down 8.82% followed by the *CBOE Eurekahedge Long Volatility Index* which was down 1.34%.

**Figure 4a: *CBOE Eurekahedge Volatility Indexes* August 2016 returns**




Source: Eurekahedge

**Figure 4b: *CBOE Eurekahedge Volatility Indexes* 2016 year-to-date returns**



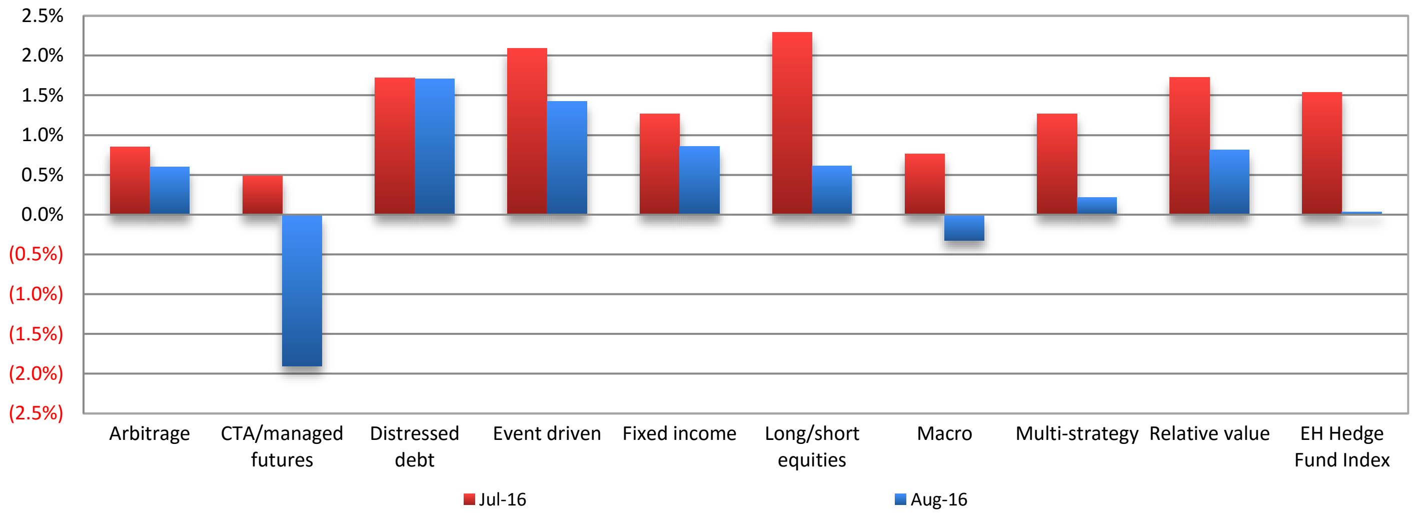

Source: Eurekahedge

# Strategy performance

Performance among strategic mandates were mixed during the month, with distressed debt hedge funds topping the table, up 1.71%. Event driven hedge funds were also up, posting gains of 1.42% followed by fixed income and relative value hedge funds which were up 0.86% and 0.81% respectively. Long/short equities and arbitrage mandated hedge funds were also up during August, gaining 0.61% and 0.60% respectively while multi-strategy mandated hedge funds gained 0.22%. On the other hand, CTA/managed futures hedge funds posted the steepest decline, down 1.91%, followed by macro mandated hedge funds which fell 0.32% during the month.

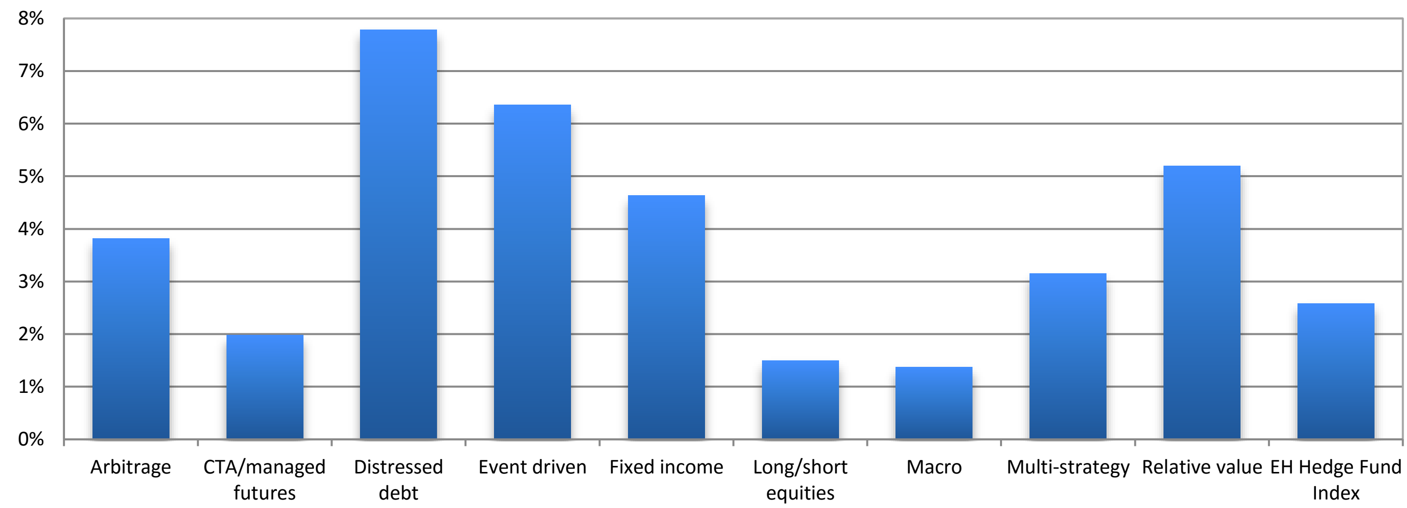
On a year-to-date basis, distressed debt hedge funds led the table, gaining 7.79% followed by event driven and relative value hedge funds which were up 6.36% and 5.20% respectively. Fixed income and arbitrage hedge funds grew 4.64% and 3.82% followed by multi-strategy mandated hedge funds which increased by 3.15%. CTA/managed futures hedge funds were up 1.98%, followed by long/short equities and macro mandated hedge funds with gains of 1.50% and 1.38%.

**Figure 5: August 2016 and July 2016 returns across strategies**




Source: Eurekahedge

**Figure 6: 2016 year-to-date returns across strategies**



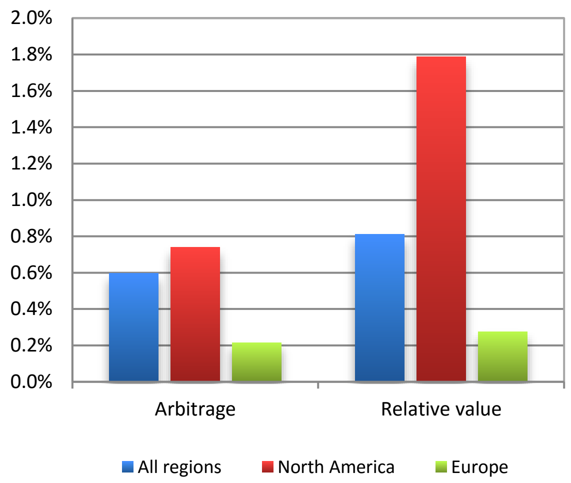

Source: Eurekahedge

**Arbitrage and relative value**

The *Eurekahedge Arbitrage Hedge Fund Index* was up 0.60% in August with North American arbitrage funds gaining 0.74%. European arbitrage funds were also up during the month, gaining 0.22%. As of 2016 year-to-date, the *Eurekahedge Arbitrage Hedge Fund Index* gained 3.82% with North American arbitrage managers leading the table among regional mandates, up 4.91%. European arbitrage managers were also in positive territory, with year-to-date gains of 1.90%.

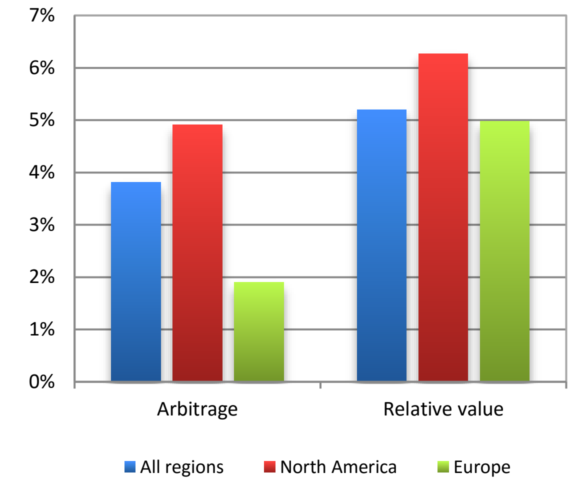
The *Eurekahedge Relative Value Hedge Fund Index* was up 0.81% during the month with North American managers up 1.79% followed by European managers who posted gains of 0.28%. On a year-to-date basis, North American and European managers were up 6.27% and 4.98% respectively. The index gained 5.20% over the past eight months. Roughly 80% of relative value managers have posted positive year-to-date performance, with about 18% of these managers posting double digit returns. A number of these outperformers had also used volatility arbitrage as a trading strategy.

**Figure 7a: Arbitrage and relative value August 2016 returns**




Source: Eurekahedge

**Figure 7b: Arbitrage and relative value 2016 year-to-date returns**




Source: Eurekahedge

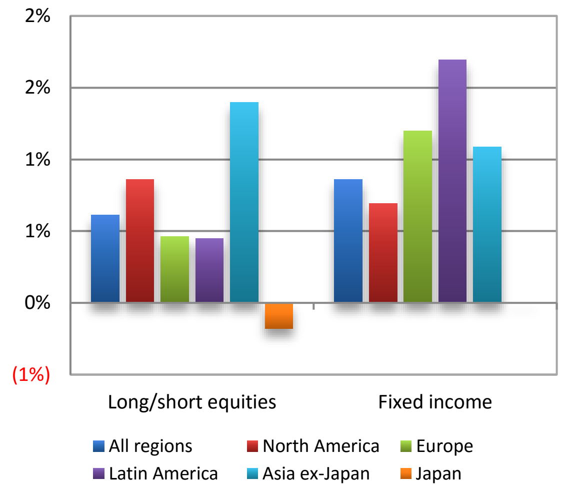
**Long/short equities and fixed income**

The *Eurekahedge Long/Short Equity Hedge Fund Index* gained 0.61% in August with all regional mandates posting positive performance during the month except for Japanese managers. Asia ex-Japan long/short equities managers were the top gainers in August, up 1.40%. Performance was held up by underlying Greater China long/short equities hedge funds which gained 2.42%. Indeed, Chinese markets were up overall with the CSI 300 Index gaining 3.87% during the month, led by the performance of financial stocks as the development surrounding the 'Stock Connect' and better-than-expected earnings report of Chinese names led to some investor optimism. Latin American long/short equities mandated hedge funds were also up 0.45% during the month, similarly on the back of well-performing equity markets in the region. Over in the developed world, North American long/short equities managers were up 0.86% followed by European managers who were up 0.46% during the month, On the other hand, Japanese long/short equities mandated hedge funds lost 0.18%.

On a year-to-date basis, Latin American long/short equities led the table, gaining 18.95% over the past eight months. Developments over Dilma Rousseff's impeachment have had a positive effect on the Latin American market, leading the Ibovespa up 33.57% over the past eight months alone. Furthermore, the overall weakness of the US dollar had also propped up the performance of the underlying Latin American commodities sector over the past eight months. North American long/short equities hedge funds were also up 4.47%, followed by Asia ex-Japan hedge fund managers which grew 1.43% year-to-date. On the other hand, Japan and European long/short equities mandated hedge funds languished into negative territory, down 3.85% and 2.73% year-to-date respectively.

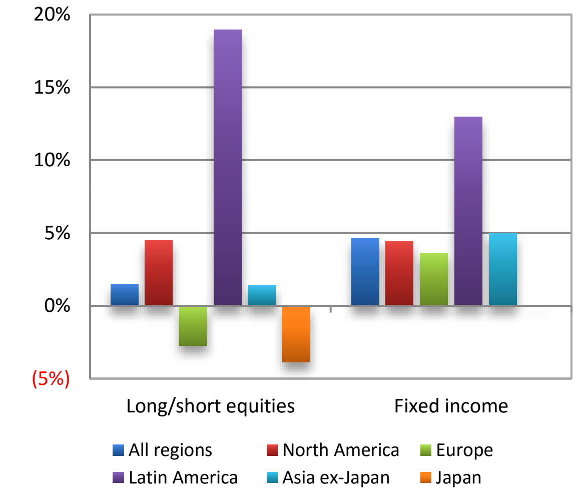
The *Eurekahedge Fixed Income Hedge Fund Index* was up 0.86% in August. Latin American fixed income managers led the table this month, with positive returns of 1.69% followed by European fixed income managers who were up 1.20% this month. Asia ex-Japan and North America fixed income managers were also up 1.09% and 0.69% during the month respectively. On a year-to-date basis, Latin American fixed income managers led the table with gains of 12.97%, followed by Asia ex-Japan managers who were up 5.00%. North American and European fixed income hedge funds were also in positive territory with year-to-date gains of 4.45% and 3.61% respectively. The index gained 4.64% over the past eight months.

**Figure 8a: Long/short equities and fixed income August 2016 returns**




Source: Eurekahedge

**Figure 8b: Long/short equities and fixed income 2016 year-to-date returns**



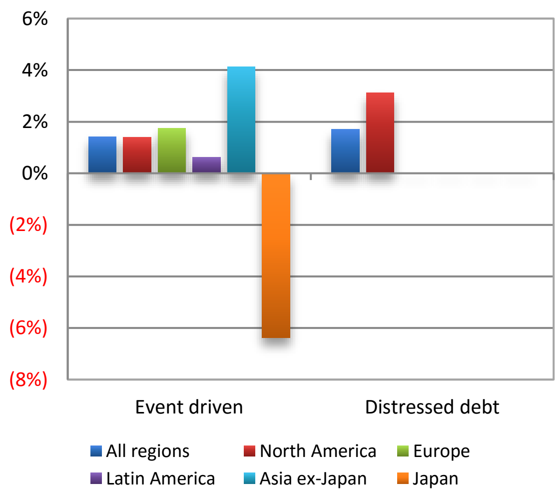

Source: Eurekahedge

**Event driven and distressed debt**

The *Eurekahedge Event Driven Hedge Fund Index* was up 1.42% in August, with performance led by Asia ex-Japan event driven managers (+4.13%) followed by European and North American managers who gained 1.74% and 1.41% respectively. Latin American event driven hedge funds were also up 0.63% during the month. On the other hand, Japan event driven hedge funds fell 6.37%, the only regional mandate to post a decline within this strategy. North American event driven managers led the tables, up 11.33% year-to-date, followed by Latin American managers with 5.88% gains. European and Asia ex-Japan managers were also positive with 5.03% and 0.11% increases respectively year-to-date. Japan event driven mandated hedge funds were the only region to languish into negative territory, losing 9.33% over the past eight months. The index was up 6.36% year-to-date.

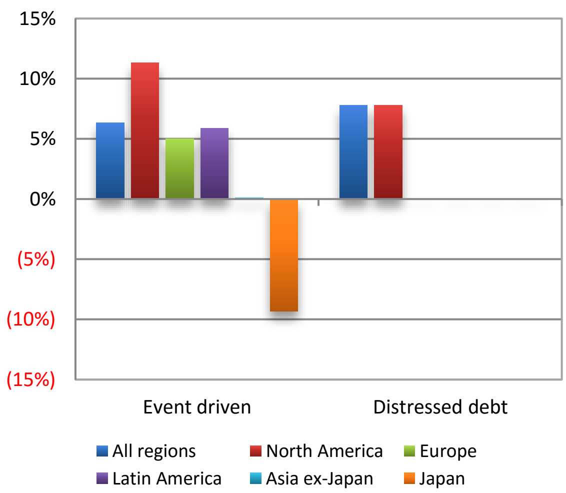
The *Eurekahedge Distressed Debt Hedge Fund Index* was up 1.71% in August, with North American distressed debt managers gaining 3.13% during the month and up 7.78% on a year-to-date basis. The high yield and leveraged loans space were up in August, with the Bank of America Merrill Lynch US High Yield Master II Index gaining 2.23% whereas the S&P LSTA Leveraged Loans 100 Index was up 0.70% during the month on the back of improving risk appetite and lower volatility levels in August. The recovery in oil and commodity prices have also indicate that troubled assets purchased over the past year have started to post gains. On a year-to-date basis, the index was up 7.79% - the best performing strategy over this period. Roughly 81% of distressed debt hedge funds were in positive territory over the past eight with roughly a quarter of them posting double digit returns.

**Figure 9a: Event driven and distressed debt August 2016 returns**




Source: Eurekahedge

**Figure 9b: Event driven and distressed debt 2016 year-to-date returns**




Source: Eurekahedge

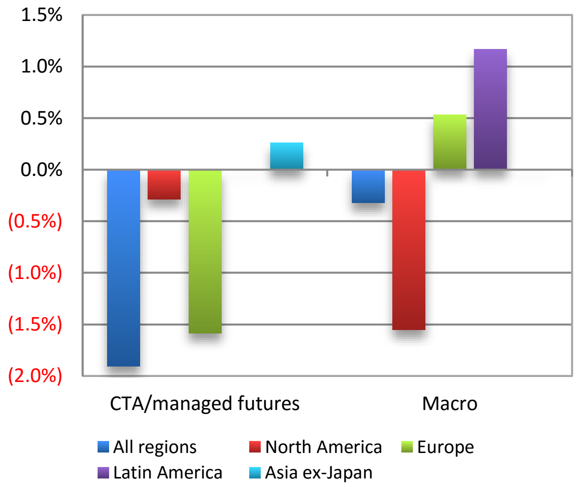
### CTA/managed futures and macro

The *Eurekahedge CTA/Managed Futures Hedge Fund Index* fell 1.91% during the month. Asia ex-Japan CTA/managed futures hedge funds led regional mandate performance, up 0.26% whereas North American and European CTA/managed futures hedge funds lost 0.29% and 1.58% respectively over the same period. On a year-to-date basis, North American hedge funds were up 2.20% followed by Asia ex-Japan hedge funds with gains of 2.00%. European mandated hedge funds were down 4.70% over the past eight months. The index is up 1.98% over the past eight months.

The *Eurekahedge Macro Hedge Fund Index* lost 0.32% during the month. Latin American managers led regional performance, gaining 1.17%, followed by European hedge funds which were up 0.53%. On the other hand, North American macro managers declined by 1.55% in August. On a year-to-date basis, Latin American macro managers were up 11.09%, followed by North American managers with marginal gains of 0.07%. European macro managers lost 2.66% over the same period. Over the past eight months the index gained 1.38%.

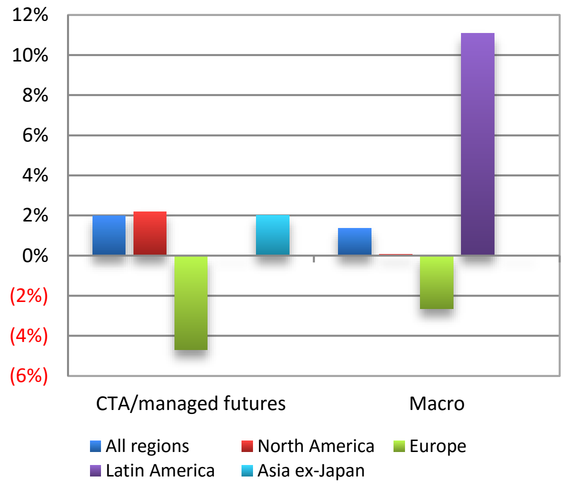
Broadly speaking, CTA/managed futures and macro mandated hedge funds led much of the overall weakness in hedge funds this month as they were the hardest hit due to signals from Fed members leading to difficult trading conditions. The strengthening of the dollar towards the end of the month also affected manager's positions into precious metals, with long positions into gold a performance detractor for managers as anticipation on the Fed rate hike builds up. This led to investors unwinding their bets on precious metals and also US sovereign bonds, with yields on both the 90 day and 10 year Treasury bills ending the month higher. Short positions within the energy sector also led to losses as developments from the OPEC meeting led to the jump in oil prices. That being said, a concrete plan has yet to be communicated among OPEC members. As of current time, potential inventory disruptions as a result of Hurricane Hermine within the North American oil space is adding to some respite in an otherwise oversupplied oil market. On the FX side, managers were caught in the USD reversal late into the month, giving back the gains made from shorting the dollar. Among short term programs, going into long USD/JPY towards month-end did cushion the impact of the reversal to some extent, but this was not sufficient to recoup losses made during the reversal.

**Figure 10a: CTA/managed futures and macro August 2016 returns**




Source: Eurekahedge

**Figure 10b: CTA/managed futures and macro 2016 year-to-date returns**



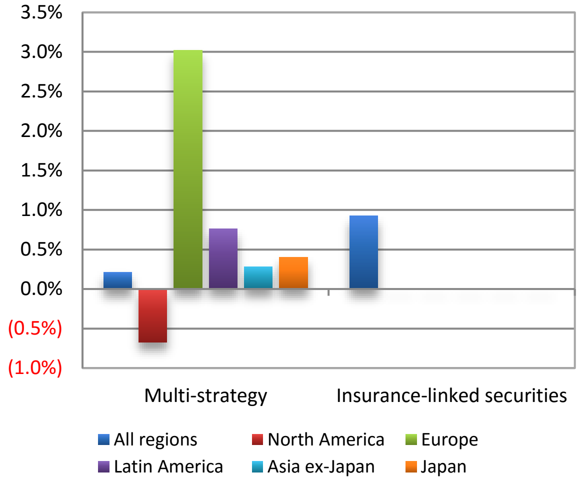

Source: Eurekahedge

### Multi-strategy and insurance-linked securities

The *Eurekahedge Multi Strategy Hedge Fund Index* was up 0.22% in August. European managers led the tables this month, up 3.02% followed by Latin American and Japan managers with gains of 0.76% and 0.40% respectively while Asia ex-Japan hedge fund managers were up 0.28% during the month. On the other hand, North American managers posted the steepest loss this month, down 0.67%. On a year-to-date basis, Latin American managers led the tables and were up 14.83%, followed by North American and European multi-strategy managers with gains of 5.94% and 1.75% respectively. Japan multi-strategy managers posted the steepest year-to-date loss, down 1.67%, followed by Asia ex-Japan managers who were down 1.54% over the same period. The index was up 3.15% over the past eight months.

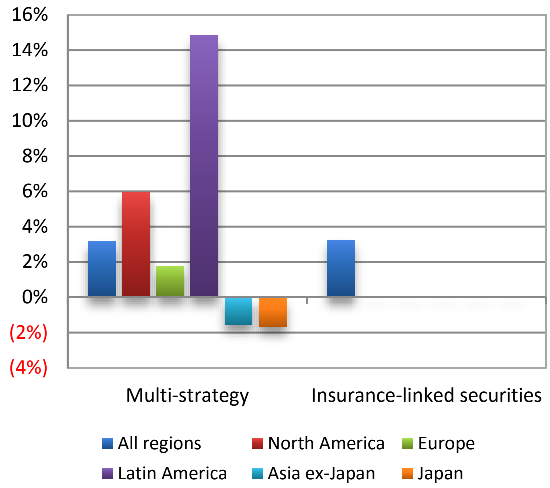
Insurance-linked securities (ILS) offer investors direct access to the reinsurance market, which can include various insurance perils such as catastrophic event. ILS registered gains of 0.93% in August, with the 2016 year-to-date figures coming in at 3.23%.

**Figure 11a: Multi-strategy and insurance-linked securities August 2016 returns**




Source: Eurekahedge

**Figure 11b: Multi-strategy and insurance-linked securities 2016 year-to-date returns**



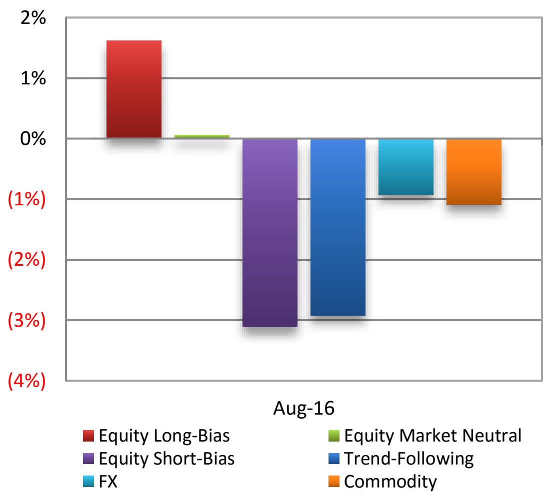

Source: Eurekahedge

## Sub-strategies

The *Eurekahedge Equity Long Bias Hedge Fund Index* was up 1.61% during the month, and up 2.65% year-to-date. Unsurprisingly, long bias hedge funds were the best performers among sub-strategy indices as equity markets had a good month in August. Meanwhile, the *Eurekahedge Equity Short Bias Hedge Fund Index* was down 3.11% during the month. Equity market neutral hedge funds, as represented by the *Eurekahedge Equity Market Neutral Hedge Fund Index* were up a marginal 0.06% in August. While equity market neutral strategies tend to maintain low directional exposures to underlying markets, manager performance is very much affected by large market moves. The index declined 1.22% year-to-date.

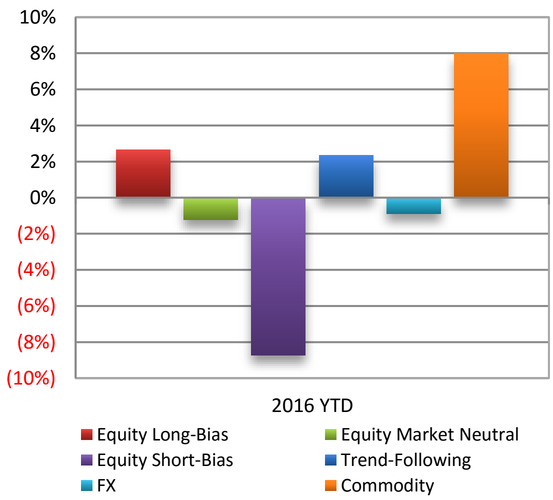
Trend-following hedge funds, a sub-group of the broad CTA index lost 2.92% in August, and up 2.34% year-to-date. Depending on the nature of a trend-following program, some very short-term trend-following hedge funds are able to quickly capture returns despite market fickleness, thereby stemming extended losses. While some short-term programs were able to reverse the short positions in the USD to capture the end-month dollar rally, the gains made were not sufficient to offset losses made when the dollar started to climb. Losses were also made within the US sovereign bond space with investors selling off their treasury holdings in anticipation of a hawkish Fed raising rates in September. Across the commodities sector, the rally in the dollar had also led to some sell-off in precious metals, particularly in gold. The *Eurekahedge Commodity Hedge Fund Index* was down 1.09% during the month, as price action in precious metals and oil had negatively impacted the performance of commodity managers. The *Eurekahedge FX Hedge Fund Index* is a broad measure of performance of underlying hedge fund managers who invest with an FX strategy. FX managers were down 0.92% with short USD positions a costly move as the dollar climbed towards the end of the month. On a year-to-date basis, FX managers declined 0.88%.

**Figure 12a: Sub-strategies August 2016 returns**




Source: Eurekahedge

**Figure 12b: Sub-strategies 2016 year-to-date returns**




Source: Eurekahedge

# Volatility Hedge Funds – The Dark Knights of the Industry

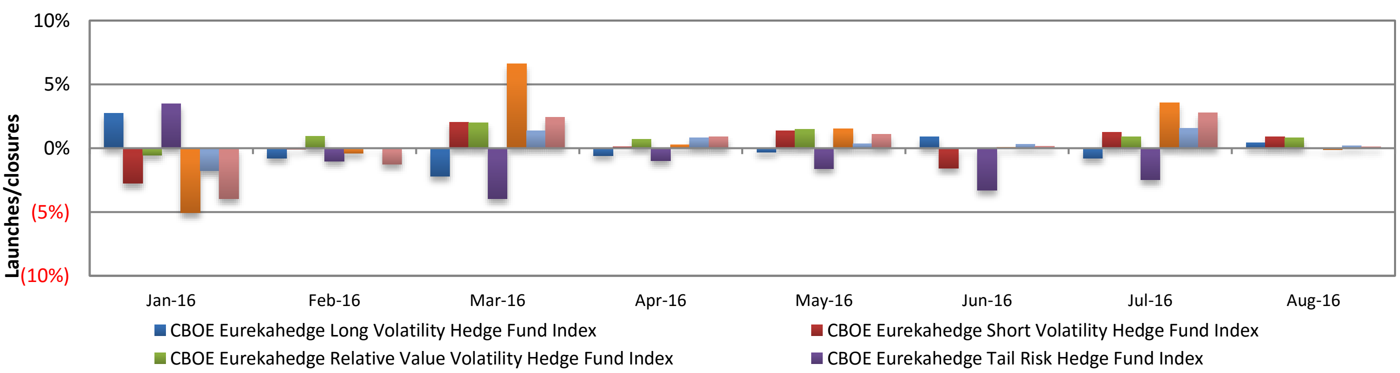
Volatility investing hedge funds are a much overlooked segment of the hedge fund industry - niche players who invest exclusively in volatility as either a standalone alpha generating strategy or as part of a diversified portfolio seeking to provide downside protection during periods of elevated market stress. The strategy though is ripe for a comeback, and a source of much added value for investors seeking to hedge their portfolios during uncertain times and possibly flirt with the notion of direct exposure to volatility as an asset class in its own right. The report which follows will review the performance of the *CBOE Eurekahedge Volatility Indexes* over the years and the added benefits that can arise from increasing allocations towards volatility investing strategies.

The *CBOE Eurekahedge Volatility Indexes* are a set of equal-weighted indices which track the performance of underlying hedge fund managers who invest exclusively into volatility as an asset class. The *CBOE Eurekahedge Volatility Indexes* comprises 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. Historical returns for the indices along with constituent details can be accessed ***here***.

Figure 1 shows the performance of various volatility investing hedge fund strategies along with monthly gains/losses for the S&P500, *Eurekahedge Long Short Equity Hedge Fund Index* and the Long Short Equity 20 Index[1]. The year started off on a sour note with weakness in Asia and declining energy prices leading markets lower, with the CBOE VIX Index (measuring 30 day implied volatility on SP500 futures contracts) climbing almost 11% in January. The S&P500 and the *Eurekahedge Long Short Equity Index* declined 5.07% and 1.78% respectively during the month, while strategies with a net long view on implied volatility saw strong gains – Long Volatility and Tail Risk strategies up 2.75% and 3.48% respectively. As markets somewhat calmed down in the months leading up to Brexit, the momentum shifted from long volatility to relative value volatility strategies (opportunistic trades on volatility) and short volatility strategies which were up 5.20% and 3.48% in the February 2016 to May 2016 period while the *Eurekahedge Long Short Equity Hedge Fund Index* and the S&P500 were up 2.54% and 8.08% respectively.

Meanwhile Tail Risk strategies saw the steepest decline over this period, down 7.36% in the four months up to May as the VIX plummeted by almost 30%. June followed with the Brexit shock, which did not work as well as expected for long volatility and tail risk strategies as markets were quick to digest the news and volatility levels as depicted by the VIX subsided. Long volatility strategies posted modest gains (up 0.89%) while tail-risk strategies declined 3.29% following the sharp reversal in volatility. In the relative calm that has quite surprisingly followed Brexit, short volatility strategies have stood to gain, up 2.16% in July 2016 to August 2016 as fund managers have harvested premiums through option underwriting – protection that was sought post Brexit against another potential spike in volatility. As of August 2016 year-to-date, relative value volatility strategies are in the lead among the volatility sub-group, up 6.36%, and ahead of the S&P500 which is up 6.21% and the *Eurekahedge Long Short Equity Hedge Fund Index* which has gained 2.76% over the same period.

**Figure 1: Volatility investing strategies in 2016**




Source: Eurekahedge

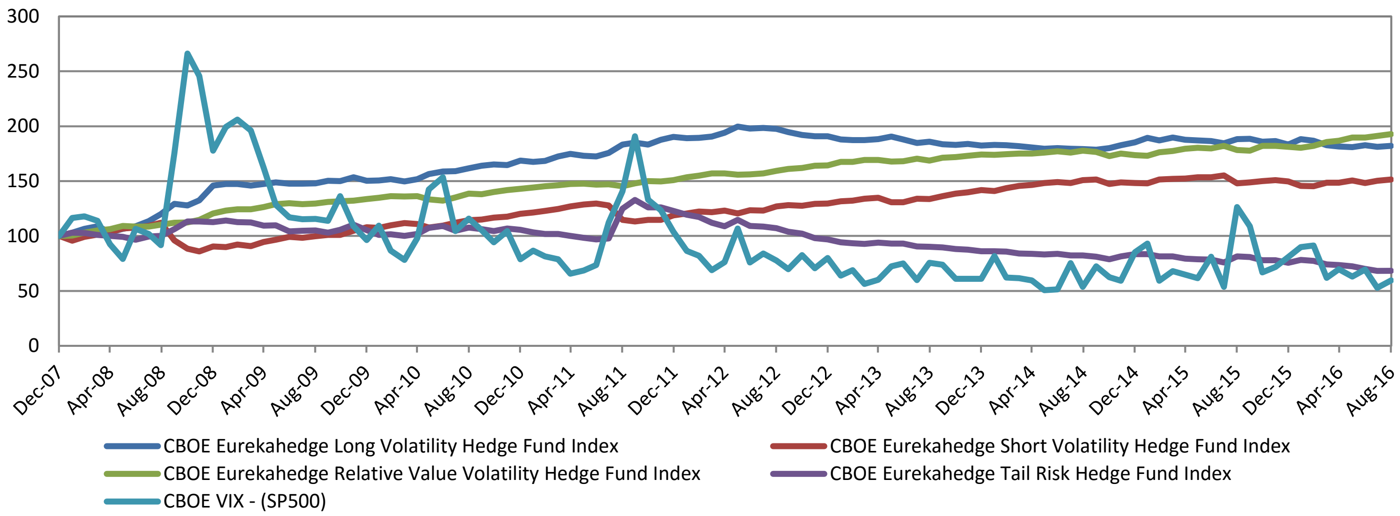
[1] Long Short Equity 20 Index: A custom index of 20 USD denominated equity long short hedge funds with over a nine year plus track record and Q1 2016 AUM in excess of US$300 Million. The index comprises mainly of funds with broad investment mandates though a few single country mandated funds are also included.

Figure 2a depicts the four *CBOE Eurekahedge Volatility Index* sub-strategies against the backdrop of the CBOE VIX Index. The chart serves to emphasise two important points:

1. There are multiple routes to gaining exposure to volatility as an asset class for investors as depicted by the distinct stream of returns from the volatility sub-strategies utilised by hedge funds since 2007. The *CBOE Eurekahedge Relative Value Volatility Hedge Fund Index* by far offers the smoothest and most consistent stream of returns, but that would not be to understate the role of short-volatility or long volatility and tail-risk strategies in an investor's portfolio given their unique plays on volatility.

2. Volatility is mean reverting, punctuated by steep spikes and drawdowns with plenty of noise which makes a passive strategy a difficult buy for investors.

**Figure 2a: Volatility investing strategies and CBOE VIX**



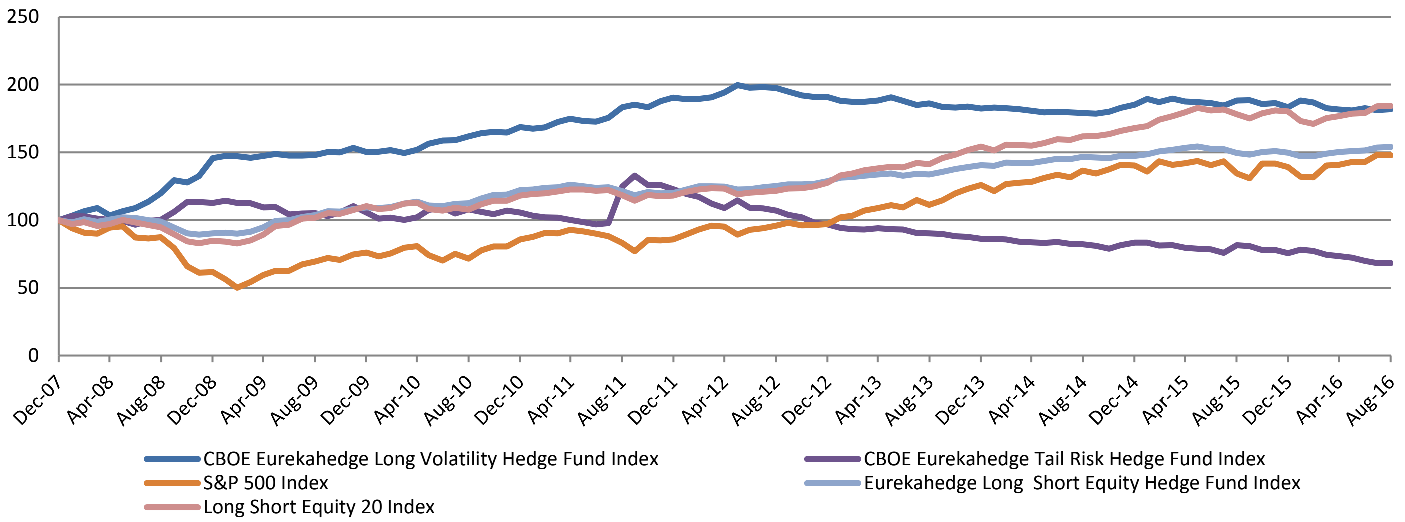

Source: Eurekahedge

Figure 2b depicts long volatility and tail risk strategies against the backdrop of traditional equity long short hedge fund strategies and the S&P500. Tail-risk strategies operate under the goal of providing protection during periods of extreme market stress, while long volatility is an alpha generation strategy that as depicted below minimises the 'bleed' much more effectively during periods of depressed market volatility.

1. Long volatility hedge funds have delivered the best gains since 2007, outperforming the S&P500 and traditional long short equity hedge fund strategies. As can be easily spotted in the figure below, the year that made the difference was 2008 when the *CBOE Eurekahedge Long Volatility Hedge Fund Index* gained 45.81% while the S&P500 and long short equity hedge funds sank 38.49% and 9.74% respectively.

2. Tail risk strategies remained ahead of the S&P500 till end-2012, following which the sustained decline in implied volatility as depicted by the CBOE VIX drained the strategy. However if the recent uptick in volatility and the adage 'the calm before the storm' are any indication, a pay-off could be long overdue.

**Figure 2b: Long volatility and equity strategies**




Source: Eurekahedge

The detailed risk-return metrics for the volatility indices along with those for the CBOE VIX and equity strategies can be seen in Table 1. Over both the five and eight year periods based on annualised returns, relative value volatility hedge fund strategies have posted the best Sharpe ratio – 1.46 and 1.67 respectively. In the past two and three year periods, they come in a close second after traditional equity long short strategies.

**Table 1: Historical returns for volatility strategies**

| | CBOE Eurekahedge Long Volatility Hedge Fund Index | CBOE Eurekahedge Short Volatility Hedge Fund Index | CBOE Eurekahedge Relative Value Volatility Hedge Fund Index | CBOE Eurekahedge Tail Risk Hedge Fund Index | CBOE VIX - (SP500) | S&P 500 Index | Eurekahedge Long Short Equity Hedge Fund Index | Long Short Equity 20 Index |
|---|---|---|---|---|---|---|---|---|
| 2008 | 45.81% | (9.41%) | 20.56% | 12.58% | 77.78% | (38.49%) | (9.74%) | (15.15%) |
| 2009 | 2.98% | 19.10% | 10.97% | (6.33%) | (45.80%) | 23.45% | 21.24% | 29.91% |
| 2010 | 12.36% | 11.35% | 6.98% | 0.10% | (18.13%) | 12.78% | 11.52% | 7.22% |
| 2011 | 12.83% | (1.20%) | 5.46% | 16.39% | 31.83% | (0.00%) | (1.78%) | (0.12%) |
| 2012 | 0.27% | 9.07% | 8.81% | (21.21%) | (22.99%) | 13.41% | 7.31% | 8.13% |
| 2013 | (4.44%) | 9.53% | 6.04% | (10.98%) | (23.86%) | 29.60% | 9.26% | 20.92% |
| 2014 | 1.58% | 4.47% | (0.36%) | (3.22%) | 39.94% | 11.39% | 4.86% | 8.80% |
| 2015 | (1.07%) | 1.09% | 4.47% | (9.51%) | (5.16%) | (0.73%) | 1.64% | 7.37% |
| 2016 Aug | (0.72%) | 1.19% | 6.36% | (9.56%) | (26.30%) | 6.21% | 2.76% | 2.14% |
| 8 year annualised returns | 5.36% | 3.85% | 7.21% | (4.68%) | (5.24%) | 6.80% | 5.68% | 8.67% |
| 8 year annualised volatility | 6.32% | 9.10% | 3.73% | 13.45% | 91.54% | 16.08% | 5.05% | 7.42% |
| 8 year Sharpe Ratio (RFR=1%) | 0.69 | 0.31 | 1.67 | (0.42) | (0.07) | 0.36 | 0.93 | 1.03 |
| 5 year annualised returns | (0.14%) | 5.74% | 5.80% | (11.37%) | (15.75%) | 12.24% | 4.84% | 9.24% |
| 5 year annualised volatility | 4.06% | 5.18% | 3.29% | 8.41% | 94.16% | 11.71% | 3.57% | 5.74% |
| 5 year Sharpe Ratio (RFR=1%) | (0.28) | 0.91 | 1.46 | (1.47) | (0.18) | 0.96 | 1.08 | 1.44 |
| 3 year annualised returns | (0.73%) | 4.26% | 4.57% | (8.89%) | (7.60%) | 9.96% | 4.78% | 9.23% |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3 year annualised volatility | 3.91% | 5.13% | 3.46% | 7.67% | 108.53% | 10.84% | 3.18% | 5.56% |
| 3 year Sharpe Ratio (RFR=1%) | (0.44) | 0.64 | 1.03 | (1.29) | (0.08) | 0.83 | 1.19 | 1.48 |
| 2 year annualised returns | 0.78% | 0.17% | 4.14% | (8.90%) | 5.36% | 4.10% | 2.47% | 6.69% |
| 2 year annualised volatility | 4.61% | 5.59% | 4.03% | 9.26% | 122.63% | 11.78% | 3.34% | 5.68% |
| 2 year Sharpe Ratio (RFR=1%) | (0.05) | (0.15) | 0.78 | (1.07) | 0.04 | 0.26 | 0.44 | 1.00 |

Source: Eurekahedge

A couple of key points should be noted from the correlation matrix show in Table 2 below.

1. As can be expected, both hedged and traditional equity strategies have much to gain from diversification across long volatility and tail risk strategies given their negative correlation to the former. Both volatility strategies can be vital to smoothening returns and improving the overall risk-return profile for an equity portfolio.

2. Short volatility strategies are positively correlated to both traditional and hedged equity strategies, though it is pertinent to note that long/short equity strategies correlate more strongly (0.801) to underlying markets (as depicted by the S&P500) while the correlation is relatively weaker for short volatility strategies (0.540). Hence adding short-volatility exposure to a traditional or hedge fund equity portfolio can yield beneficial effects *vis a vis* risk-return profile for the portfolio.

3. Relative value volatility strategies have small-to-moderate positive correlation to the S&P500 and equity hedged strategies while being negatively correlated to long volatility and tail risk strategies. In the pool of indices depicted in the table below, they correlate most strongly with the short volatility strategies. It could thus be fair to presume that the average relative value volatility hedge fund takes a net short view on implied volatility more often (as opposed to net long implied volatility), which in world where volatility spikes happen less frequently would be the sensible side of the trade to be on – *mostly*.

4. Tail risk strategies, as expected are positively correlated to the long volatility strategies, though not very strongly given the difference highlighted between the two earlier. They correlate negatively to all volatility and equity strategies -0.619 versus the short volatility strategies given their opposing bets.

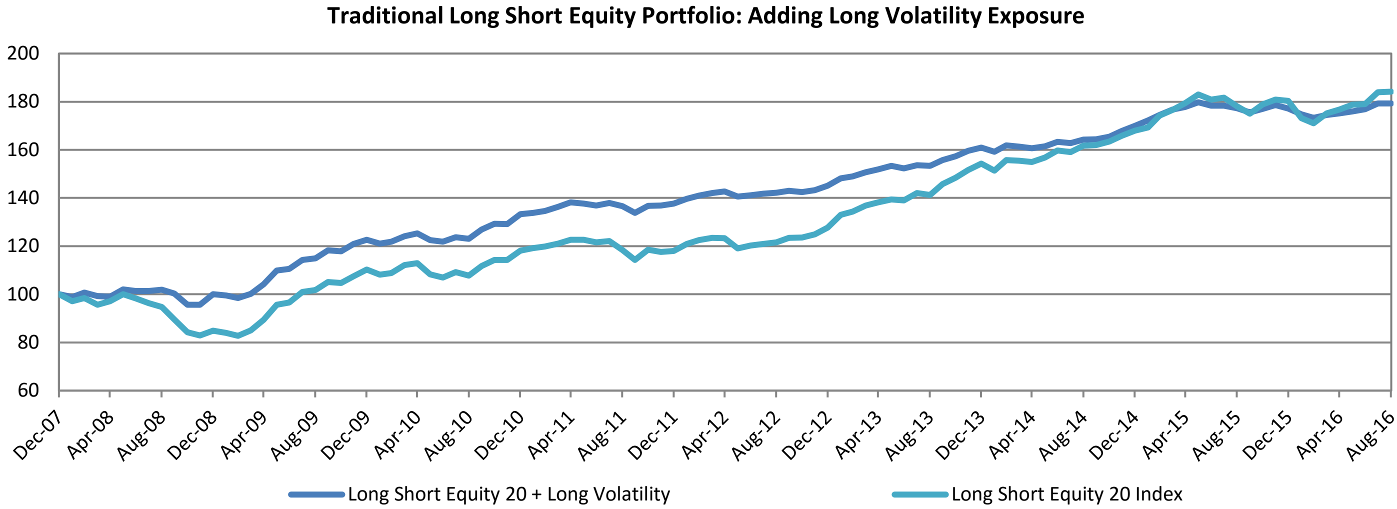
**Table 2: Correlation matrix**

| Correlation Matrix | CBOE Eurekahedge Long Volatility Hedge Fund Index | CBOE Eurekahedge Short Volatility Hedge Fund Index | CBOE Eurekahedge Relative Value Volatility Hedge Fund Index | CBOE Eurekahedge Tail Risk Hedge Fund Index | CBOE VIX - (SP500) | S&P 500 Index | Eurekahedge Long Short Equity Hedge Fund Index | Long Short Equity 20 Index |
|---|---|---|---|---|---|---|---|---|
| CBOE Eurekahedge Long Volatility Hedge Fund Index | 1 | | | | | | | |
| CBOE Eurekahedge Short Volatility Hedge Fund Index | (0.280) | 1 | | | | | | |
| CBOE Eurekahedge Relative Value Volatility Hedge Fund Index | 0.106 | 0.428 | 1 | | | | | |
| CBOE Eurekahedge Tail Risk Hedge Fund Index | 0.436 | (0.619) | (0.274) | 1 | | | | |
| CBOE VIX - (SP500) | 0.277 | (0.671) | (0.516) | 0.486 | 1 | | | |
| S&P 500 Index | (0.341) | 0.540 | 0.248 | (0.460) | (0.679) | 1 | | |
| Eurekahedge Long Short Equity Hedge Fund Index | (0.284) | 0.648 | 0.351 | (0.451) | (0.604) | 0.801 | 1 | |
| Long Short Equity 20 Index | (0.328) | 0.606 | 0.320 | (0.472) | (0.614) | 0.849 | 0.939 | 1 |

Source: Eurekahedge

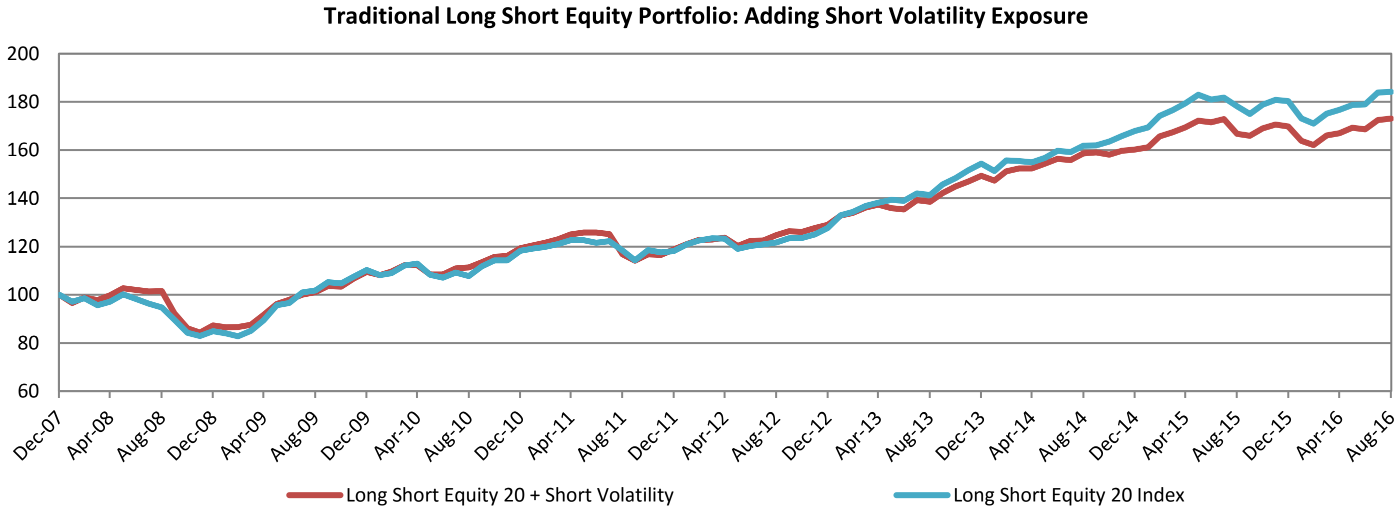
Next we add on the underlying constituents for each of the volatility sub-strategies, using an equal weighted approach, to the Long Short Equity 20 Index to visualise the gains accruing to a hedged equity portfolio. Figure 3a shows the addition of long volatility hedge funds to the Long Short Equity 20 Index – with the return smoothening and reduction in drawdowns quite apparent. Given the bull run of 2013 however, the standalone Long Short Equity 20 Index has fared relatively better.

**Figurea 3a-3d: Long Short Equity 20 Index plus volatility strategies**



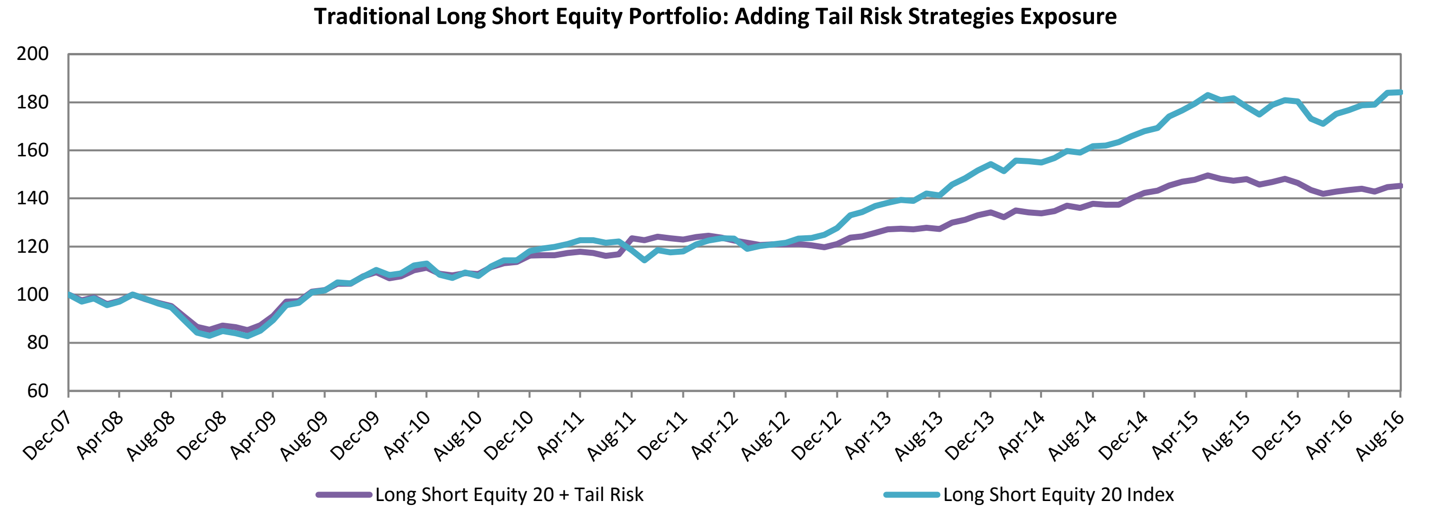

Source: Eurekahedge

Figure 3b shows the addition of short volatility hedge funds to the Long Short Equity 20 Index – given the strong positive correlation between the two, the gains are not as apparent here though the drawdown in 2008 is slightly shallower.



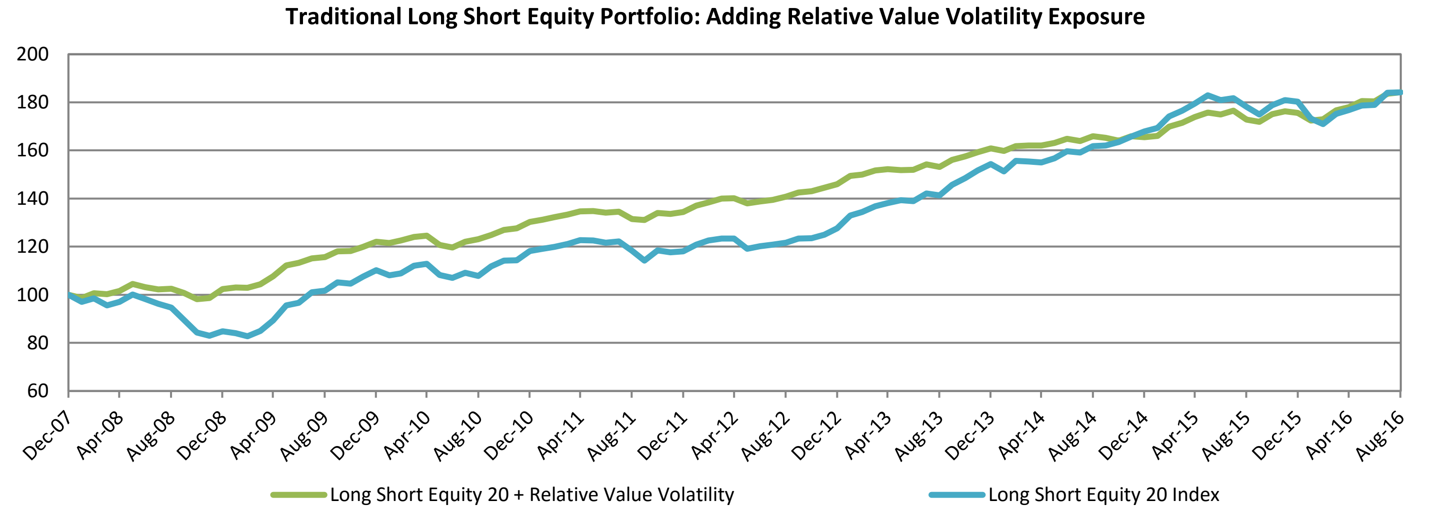

Source: Eurekahedge

Figure 3c shows the addition of tail risk to the Long Short Equity 20 Index – the most noticeable observation is to be made is for 2011 when adding a tail-risk exposure improves returns by 5.78%. However, the bleed inherent to a tail-risk protection strategy does take its toll on the equity hedged portfolio. It should be noted that an equal weighted approach has been adopted in this analysis which overweighs tail risk in an equity hedged portfolio, and thus an asset weighted optimisation approach would yield better results once a limited portion of the portfolio is dedicated to tail risk strategies – like a massive insurance policy that pays out when financial markets suffer from steep drawdowns.




Source: Eurekahedge

Figure 3d shows the addition of relative value volatility strategies to the Long Short Equity 20 Index – with the performance smoothening quite evident as depicted below. More on this with reference to Table 3 which follows shortly.




Source: Eurekahedge

Putting the above charts into numbers, table 3 shows the overall impact on risk-return over the period under analysis. Some key takeaways:

1. Over the last three, five and eight year periods, the combination of relative value volatility hedge funds to a portfolio of 20 equity long short strategies has yielded the best Sharpe ratio among the lot – 1.50, 1.76 and 1.56 respectively.

2. Over the last two years, the addition of long volatility strategies to our equity hedge portfolio has yielded the best risk-return profile, two year Sharpe ratio of 1.15. This given the recent bouts of market volatility would be something to take stock of.

3. Overall portfolio volatility levels have generally declined with the addition of volatility sub-strategies to an equity hedge portfolio, with this reduced volatility in some cases resulting in a drag on returns for the Long Short Equity 20 portfolio.

**Table 3: Performance numbers – Long Short Equity 20 Index plus volatility strategies**

| | Long Short Equity 20 + Long Volatility | Long Short Equity 20 + Short Volatility | Long Short Equity 20 + Relative Value Volatility | Long Short Equity 20 + Tail Risk | Long Short Equity 20 Index | S&P 500 Index | Eurekahedge Long Short Equity Hedge Fund Index |
|---|---|---|---|---|---|---|---|
| 2008 | (0.02%) | (12.73%) | 2.40% | (12.80%) | (15.15%) | (38.49%) | (9.74%) |
| 2009 | 22.70% | 25.42% | 19.19% | 25.37% | 29.91% | 23.45% | 21.24% |
| 2010 | 8.64% | 9.01% | 6.72% | 6.37% | 7.22% | 12.78% | 11.52% |
| 2011 | 3.32% | (0.49%) | 3.22% | 5.66% | (0.12%) | (0.00%) | (1.78%) |
| 2012 | 5.39% | 8.69% | 8.52% | (1.43%) | 8.13% | 13.41% | 7.31% |
| 2013 | 10.88% | 15.70% | 10.21% | 10.87% | 20.92% | 29.60% | 9.26% |
| 2014 | 5.63% | 7.29% | 2.96% | 6.03% | 8.80% | 11.39% | 4.86% |
| 2015 | 4.24% | 6.01% | 6.04% | 2.86% | 7.37% | (0.73%) | 1.64% |
| 2016 Aug | 1.16% | 1.91% | 4.91% | (0.86%) | 2.14% | 6.21% | 2.76% |
| 8 year annualised returns | 7.30% | 6.91% | 7.60% | 5.41% | 8.67% | 6.80% | 5.68% |
| 8 year annualised volatility | 4.96% | 7.48% | 4.24% | 5.78% | 7.42% | 16.08% | 5.05% |
| 8 year Sharpe Ratio (RFR=1%) | 1.27 | 0.79 | 1.56 | 0.76 | 1.03 | 0.36 | 0.93 |
| 5 year annualised returns | 5.58% | 8.18% | 6.98% | 3.30% | 9.24% | 12.24% | 4.84% |
| 5 year annualised volatility | 3.14% | 5.11% | 3.39% | 3.47% | 5.74% | 11.71% | 3.57% |
| 5 year Sharpe Ratio (RFR=1%) | 1.46 | 1.41 | 1.76 | 0.66 | 1.44 | 0.96 | 1.08 |
| 3 year annualised returns | 5.33% | 7.71% | 6.34% | 4.48% | 9.23% | 9.96% | 4.78% |
| 3 year annualised volatility | 3.02% | 5.19% | 3.56% | 3.84% | 5.56% | 10.84% | 3.18% |
| 3 year Sharpe Ratio (RFR=1%) | 1.43 | 1.29 | 1.50 | 0.91 | 1.48 | 0.83 | 1.19 |
| 2 year annualised returns | 4.45% | 4.45% | 5.38% | 2.66% | 6.69% | 4.10% | 2.47% |
| 2 year annualised volatility | 2.99% | 5.50% | 3.97% | 3.68% | 5.68% | 11.78% | 3.34% |
| 2 year Sharpe Ratio (RFR=1%) | 1.15 | 0.63 | 1.11 | 0.45 | 1.00 | 0.26 | 0.44 |

Source: Eurekahedge

# Introduction

"Assets under management for the Asian hedge fund industry declined by US$0.7 billion as of 2016 YTD, with managers posting performing-based declines of US$1.2 billion amid a difficult trading environment."

"Investor allocations totalled US$0.5 billion over the past seven months, down from US$5.7 billion over the same period last year."

"Asian managers have seen three consecutive months of redemptions totalling US$2.6 billion in the period ending July 2016."

"As of 2016 YTD, Singapore-based hedge funds are in the lead, up 2.08% while Japan and Hong Kong-based funds are in the red among key Asian hedge fund centres, down 2.50% and 2.27% respectively for the year."

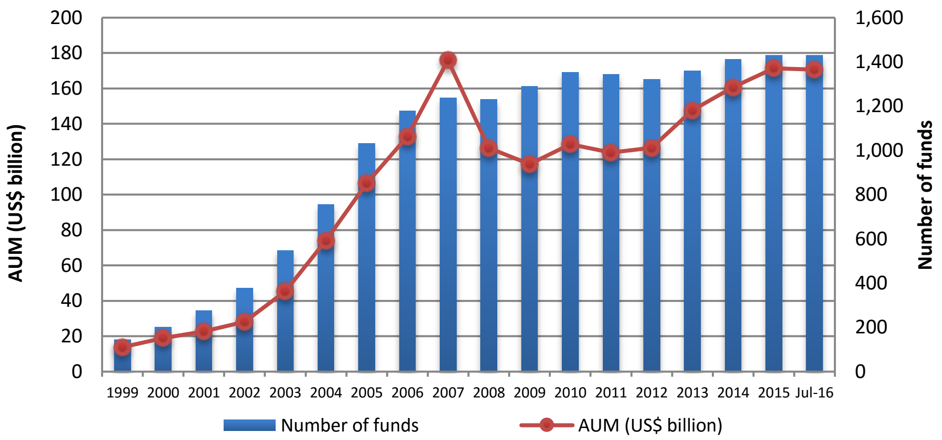
"New fund launches remain muted for Asia, with only 27 launches in 2016, down from 83 in 2015 and 126 in 2014."

Global financial markets have been peppered with a series of events adding to volatile conditions in the trading environment. Within Asia, monetary stimulus continues to be a main theme as global events weigh in on investor sentiment. The fallout from Brexit; though largely contained for the moment, and the US Federal Reserve's unconfident march towards policy normalisation will be much watched for as 2016 draws to a close.

Indeed with regional and global developments in the background, the Asian hedge fund industry had a difficult start to the year. The industry's assets under management (AUM) declined by US$0.7 billion in the first seven months of 2016, the lowest year-to-date decline on record since 2010. Over the past seven months, the pace of investor allocations were slow and net inflows stood at a modest US$0.5 billion. Investor redemptions have picked up pace over the past couple of months, with managers witnessing three consecutive months of outflows totalling US$2.6 billion in the period ending July. Performance-based figures were also hard to come by for Asian managers, who posted losses of US$1.2 billion over the same period. The Asian hedge fund industry recorded modest growth in asset base in 2016, bring the industry's total AUM to US$170.7 billion, overseen by 1,430 funds.

Among geographic mandates, India-focused funds topped the table, up 6.49% year-to-date. On the other hand, performance for Greater China focused hedge funds languished over the same period, declining 4.55% year-to-date. Asian relative value hedge funds were up 6.61% year-to-date, topping the table among strategic mandates while performance was lacklustre for Asian event driven hedge funds, which declined 2.32% over the same period.

**Figure 1a: Industry growth since 1999**

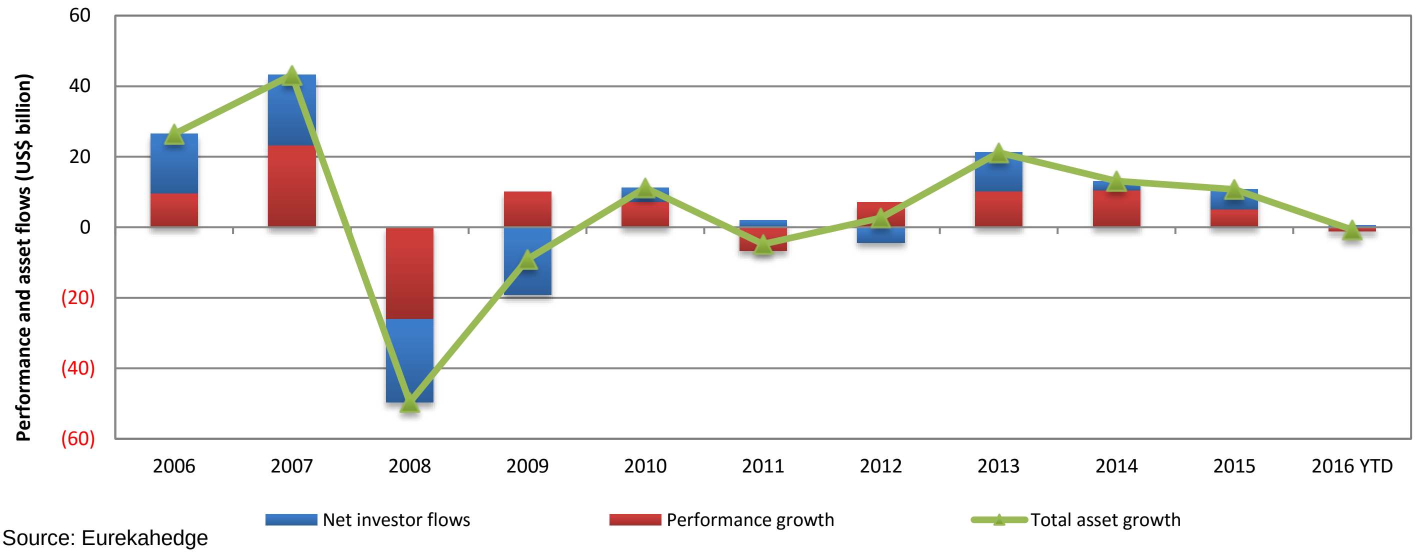



Source: Eurekahedge

In the pre-financial crisis era, the Asian hedge fund industry saw the steepest climb over the next eight years, starting from 1999. Assets under management (AUM) stood at US$14 billion as at end-1999 and reached US$176 billion by end-2007. Fund population also grew in tandem over the same period of time, from 145 funds in 1999 to reach 1,237 funds as at end-2007. However, gains realised over this period were partially reversed by the global financial crisis, resulting in a spate of fund liquidations as managers struggled to deal with negative returns and strong redemptions from investors. April 2009 saw AUM declining to a US$104.8 billion low before the industry witnessed a rebound on the back of rallying equity markets and positive asset flows in the second half of 2009.

During the Eurozone debt crisis in 2011, the ensuing market uncertainty also affected the performance of Asian managers with their asset base contracting by US$4.8 billion during the year. While performance figures improved in 2012 with gains of US$7.0 billion, asset base saw a modest growth of US$2.7 billion as gains were erased by strong redemption pressure from investors.

**Figure 1b: Contribution of performance and investor allocation to industry growth**




Source: Eurekahedge

The industry made unprecedented growth in 2013, with the industry's asset base growing by US$21.2 billion - its highest since 2007 as the theme of global economic recovery began to gather more credence, especially in Asia with renewed investor optimism in the region. Growth was somewhat slower in the following year as net flows into Asia fell despite performance-based gains, sustained by equity markets outperformance particularly from Indian and Greater China in the latter half of 2014.

As of July 2016 year-to-date, AUM for the Asian hedge fund industry lost US$0.7 billion partly due to the decline in performance-based figures as well as a slow period of investor allocations. Performance-based losses of US$1.2 billion were recorded over the past seven months, with investors allocating US$0.5 billion during this period. This is compared to US$5.7 billion growth in AUM over the same period in 2015. Performance-based gains have been hard to come by this year, and the pace of redemptions have started to pick over the past couple of months not only in the Asian hedge fund space but globally as well. Global hedge fund assets grew by US$9.1 billion during the first seven months of this year, compared to asset growth of US$107.3 billion over the same period last year.

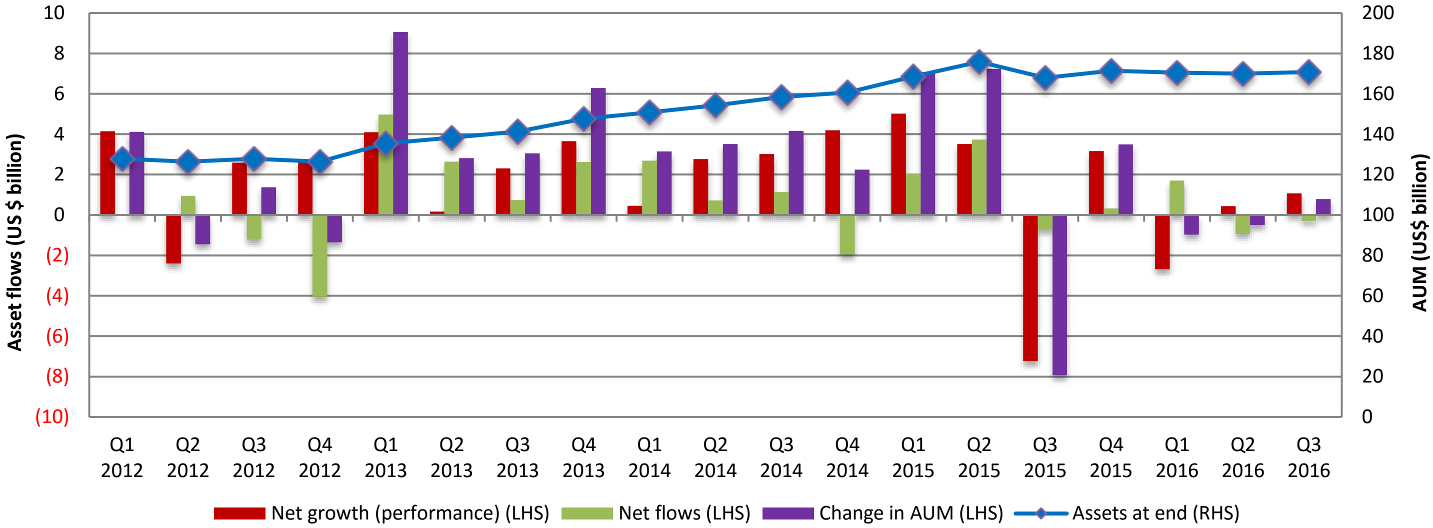
# Industry composition and growth trends

### Asset flows

Asset flows were mixed throughout 2012, with asset base increasing marginally by US$2.7 billion. While performance-based gains of US$7.0 billion were recorded, gains made by managers during the year were erased by redemption pressure – most of which occurred in the last quarter of the year. 2013 was a good year for Asian hedge fund managers which saw all four quarters of performance-based gains and investor inflows totalling US$10.2 billion and US$11.0 billion respectively. Going into 2014, performance-based gains were recorded across all four quarters totalling US$10.5 billion, while net flows of US$2.6 billion were posted despite redemptions of US$2.0 billion in the fourth quarter alone. Performance-based figures were positive for 2015, with managers recording gains of US$4.5 billion. This is despite a challenging third quarter which saw performance-based figures taking a dive, down US$7.2 billion during the quarter alone. Investor allocations were also up in 2015, with net inflows totalling US$5.4 billion. Similarly the tough trading environment in the third quarter led to considerable market uncertainty with investors redeeming US$0.7 billion during this quarter.

The trading environment was rather volatile going into 2016, with managers witnessing US$2.7 billion in performance-based losses during the first quarter of 2016. However, performance figures recovered in the subsequent two quarters with gains totalling US$1.5 billion in both the second and third quarter of the year. In terms of investor flows, the first quarter of 2016 saw US$1.7 billion of investor inflows. As volatility in the markets continue to unnerve investors, redemptions have also gradually picked up its pace in the subsequent quarters with redemptions totalling US$1.2 billion in the second and third quarters of the year. Asian managers have also been facing three consecutive months of net outflows totalling US$2.6 billion in the period ending July 2016 with the ongoing market uncertainty putting investors at the edge of their seats.

**Figure 2: Quarterly asset flows in Asian hedge funds since December 2011**

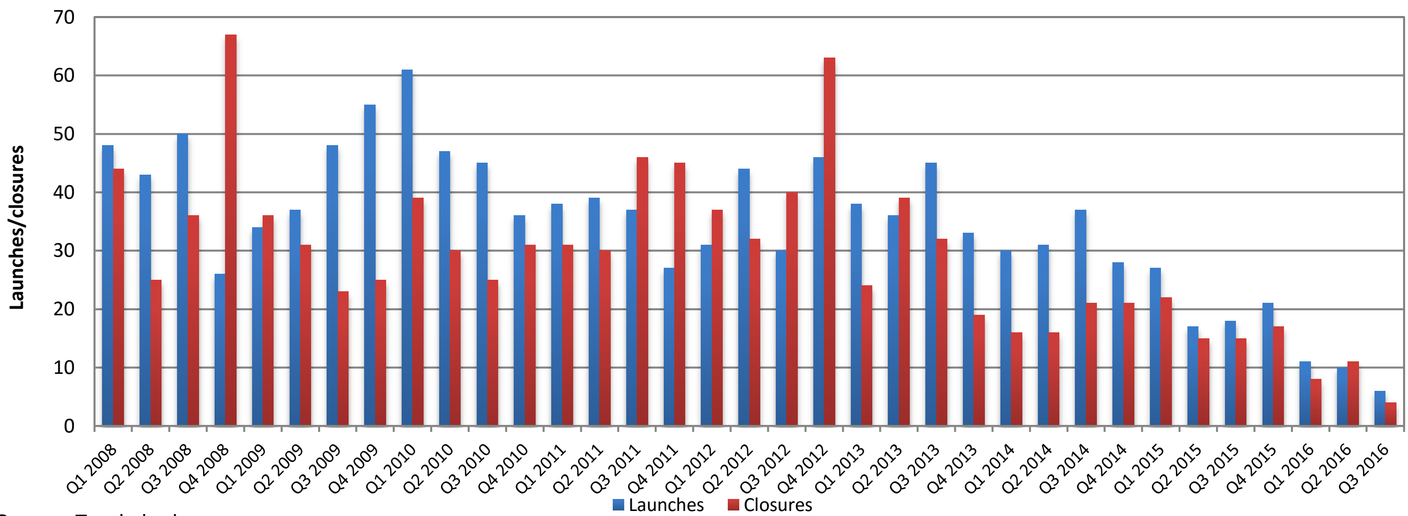



Source: Eurekahedge

**Launches and closures**

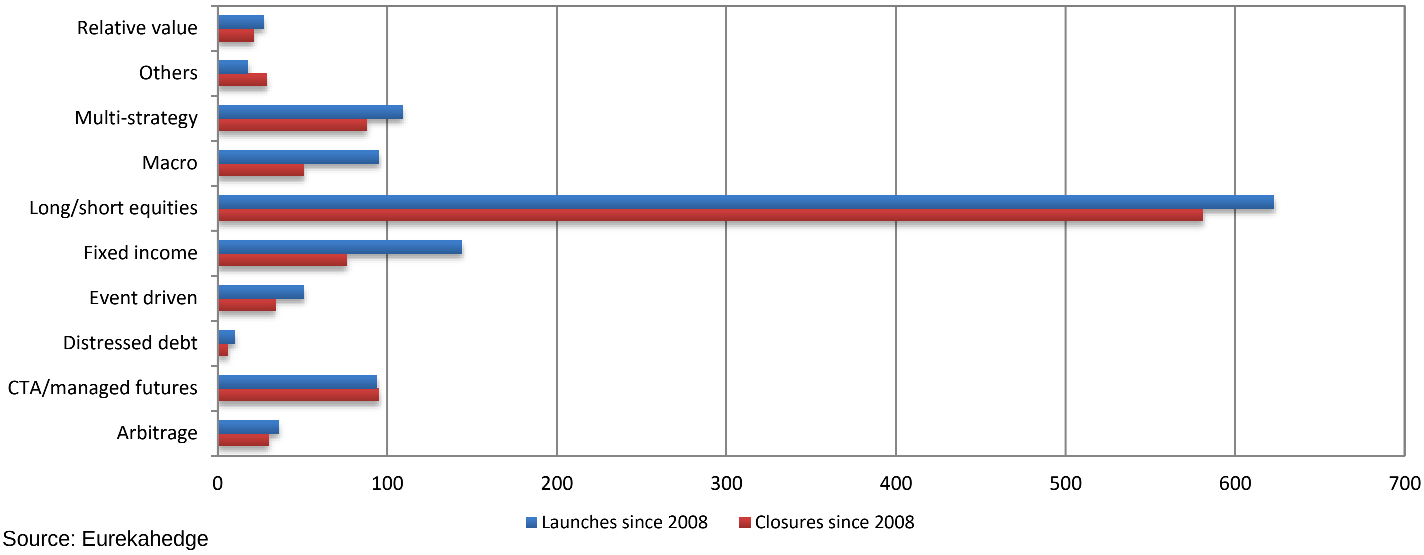
The industry's trend for launches and closures vary greatly when compared across the pre- and post-financial crisis era. Hedge fund attrition rates spiked up post-financial crisis with a total of 184 fund liquidations in 2008. This was also the year with the highest number of fund liquidations over the period analysed here as fund managers posted heavy losses amid a global financial meltdown. Launch activity picked up from mid-2009 to end-2010 while fund liquidation was relatively subdued. In tandem with market uncertainty in 2011 as a result of the Eurozone crisis, fund liquidations saw another spike during the year with 151 liquidations – the highest attrition rates were seen across hedge funds with an Asia-ex-Japan and global mandates. Fund liquidations remained high throughout 2012, taking a toll on smaller hedge funds which failed to qualify for the performance fees. Looking at the past few years, launch activity has been slowing down as seen in 2012 (149 launches), 2013 (149 launches), 2014 (117 launches), 2015 (83 launches) and as of July 2016 (27 launches). As with the trend globally, launch activity in Asia has been rather muted going into 2016. A difficult trading environment has taken its tolls on hedge fund returns, and with investor redemptions picking up pace post Brexit the capital raising environment for new launches looks rather bleak unless they have good investor backing to begin with. Fund closures on the other hand could pick pace if returns continue to remain dampened, with some Greater China investing funds at particular risk given the disappointing returns post June 2015.

**Figures 3a-3b: Launches and closures of Asian hedge funds**




Source: Eurekahedge

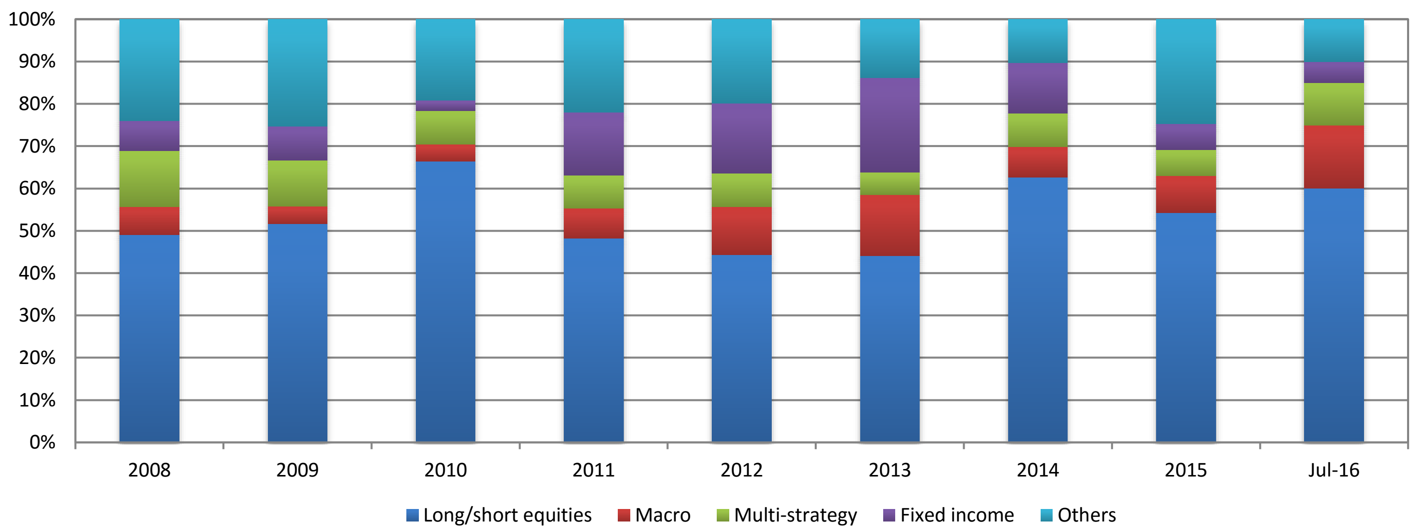
The following chart shows the breakdown of fund launches and closures by strategic mandates since 2008. Long/short equities account for the majority of hedge fund launches, followed by fixed income, multi-strategy and macro. Fund population across all strategic mandates grew since 2008, except for those in CTA/managed futures and 'Others' category, which saw a net decrease in their population growth. Among those strategic mandates which have seen growth in their fund population, fixed income and macro have shown the highest overall net increase in their respective fund population since 2008. The net population of fixed income hedge funds grew by 68 funds, followed by macro mandated funds which grew by 44 funds. A popular strategy among Asian hedge fund managers, long/short equity hedge funds also saw their net fund population growing by 42 funds since 2008.




Source: Eurekahedge

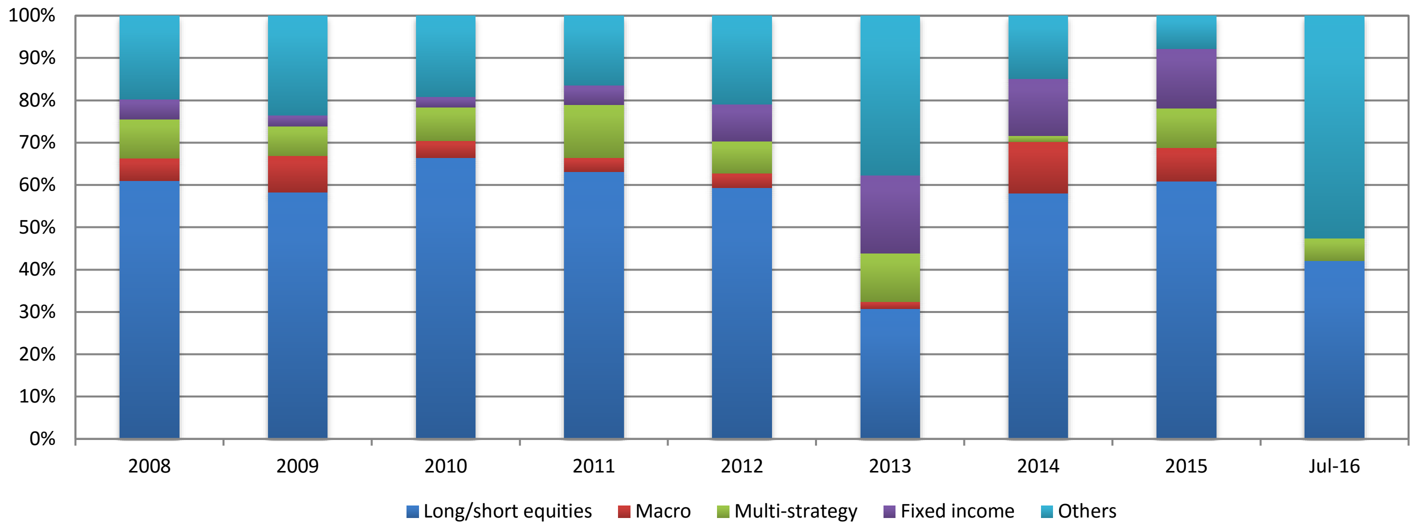
Figures 4a-4b show the fund launches and closures respectively classified by major strategies. Long/short equities mandated hedge funds suffered during the global financial crisis as closures outpaced launches between 2008 and 2012 after which growth picked up in 2013 and 2014. Over the past year, long/short equities mandate had the highest number of launches (43 launches) though closure numbers come up to be quite close (33 closures) for the year. Other strategies which saw launch activity were macro, multi-strategy, relative value and fixed income mandates. As of July 2016, the pace of liquidations have caught up closely with that of launches. Long/short equities continue to be a sought-after strategy for Asian hedge fund managers, followed by macro and multi-strategy mandates though launches itself has been rather muted.

**Figures 4a: Fund launches across major strategies**




Source: Eurekahedge

**Figure 4b: Fund closures across major strategies**




Source: Eurekahedge

**Fees**

Average management fees have seen a declining trend starting from 2010, down from 1.61% to a low of 1.39% in 2013. This figure climbed slightly in the coming years, reaching 1.45% as of 2016 year-to-date. Over the same period of time, average performance fees has also declined from 18.31% in 2010 to 16.20% in 2013, before increasing in the coming years. As of 2016 year-to-date, the average performance fees for funds launched during the year is at a high of 19.31%. In 2016, a number of prominent management companies have launched hedge funds with an Asian angle. Coming from well-known fund management companies, these new hedge funds tend to have higher performance fees at their inception date thus bringing the average performance fees as seen for 2016 year-to-date a notch higher. Having said that, we are dealing with a smaller sample size as launch activity has hit an all-time low in 2016 thus higher performance fees are more an anomaly and less of an emerging trend given the pressures on the industry. Overall, the traditional 2 and 20 hedge fund fee structure has been challenged in the recent years by a fresh start up scene in Asia. These start up hedge funds are often willing to negotiate lower fees in order to attract seed capital, thus putting pressure on existing management companies to be more flexible on their fee structure as well.

**Table 1: Average Asian hedge fund fees by launch year**

| Year | Average management fees (%) | Average performance fees (%) |
|---|---|---|
| 2006 | 1.59 | 18.19 |
| 2007 | 1.63 | 18.03 |
| 2008 | 1.59 | 17.54 |
| 2009 | 1.69 | 17.30 |
| 2010 | 1.61 | 18.31 |
| 2011 | 1.60 | 17.57 |
| 2012 | 1.56 | 17.44 |
| 2013 | 1.39 | 16.20 |
| 2014 | 1.45 | 16.76 |
| 2015 | 1.47 | 16.58 |
| 2016 YTD | 1.45 | 19.31 |

Source: Eurekahedge

**Redemption notification period**

Table 2 points towards an important development taking place in the Asian hedge funds industry. Prior to the financial crisis, the average redemption period was about one month, and during the financial crisis, the average redemption period was at 35 days. In the time following the financial crisis, the average redemption period has been on the decline, falling to less than a month since 2013 as managers try to bring redemption terms more in line with the liquidity of their underlying investment. Hedge funds in general have worked over the past few years to offer better liquidity terms to their investors; such as lowering gates and penalties and giving their investors better redemption terms in order to improve the overall appeal of their products. Having said that, increased liquidity is likely to weigh in on hedge fund performance during periods of market stress as fund managers are forced to exit positions prematurely. A performance comparison based on three year annualised returns between UCITS and non-UCITS compliant hedge funds show that the latter outperformed their more liquid peers by over 300 basis points, an illiquidity premium that should not be ignored by investors seeking added liquidity on their investments.

**Table 2: Redemption notification period**

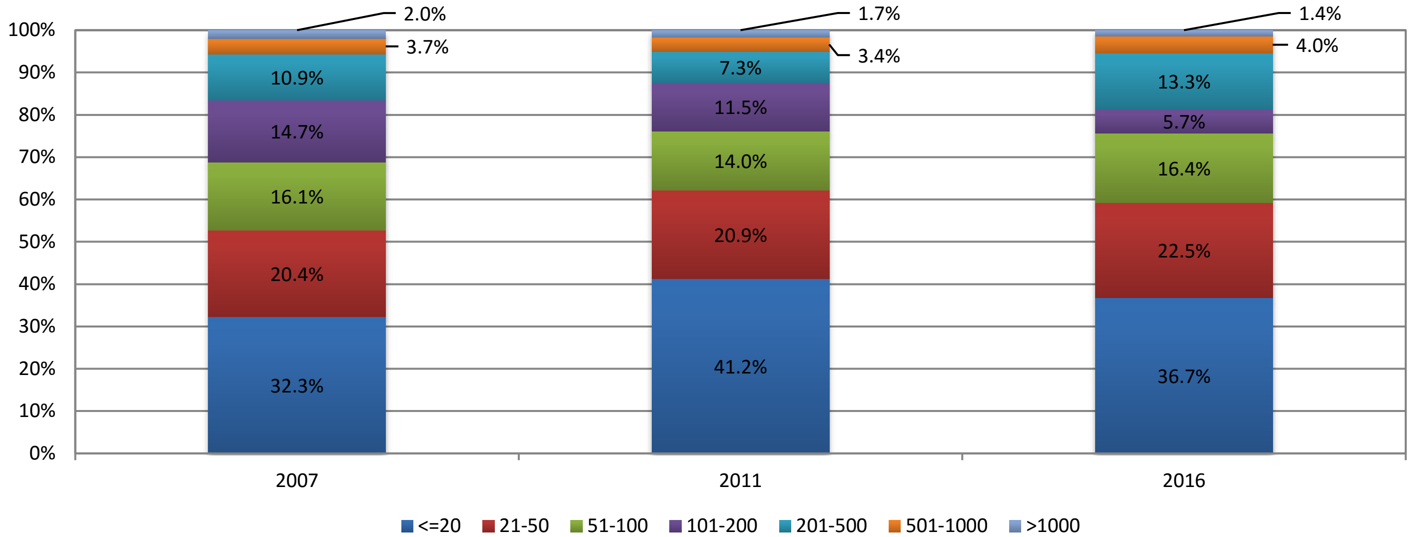
| Year | Average redemption period / days |
|---|---|
| 2006 | 34 |
| 2007 | 37 |
| 2008 | 35 |
| 2009 | 30 |
| 2010 | 31 |
| 2011 | 23 |
| 2012 | 28 |
| 2013 | 20 |
| 2014 | 27 |
| 2015 | 27 |
| 2016 YTD | 20 |

Source: Eurekahedge

**Fund size**

The breakdown of the Asian hedge fund industry by fund size displays interesting trends emerging in the industry. The percentage of funds managing up to US$100 million in assets has increased by 6.8% since 2007 - peaking at 76.1% in 2011 on the back of renewed launch activity in the region which saw a number of small hedge funds enter the industry. Within this band, the proportion of hedge funds managing below US$50 million has increased from 52.7% in 2007 to 59.2% in 2016. On the whole, the percentage of total industry AUM between US$100 million to US$500 million overseen by managers have slightly declined from 25.5% in 2007 to 19.0% in 2016 whereas hedge funds overseeing assets above US$500 million have maintained their market share of around 5% since 2007. Indeed, it is harder for funds to break into the 'billion dollar club' as this would require factors such as proven track record and good returns in order to attract investors. The share of funds in this 'billion dollar club' has largely held stable over the years.

**Figure 5: Breakdown of fund population by fund size (US$ million)**



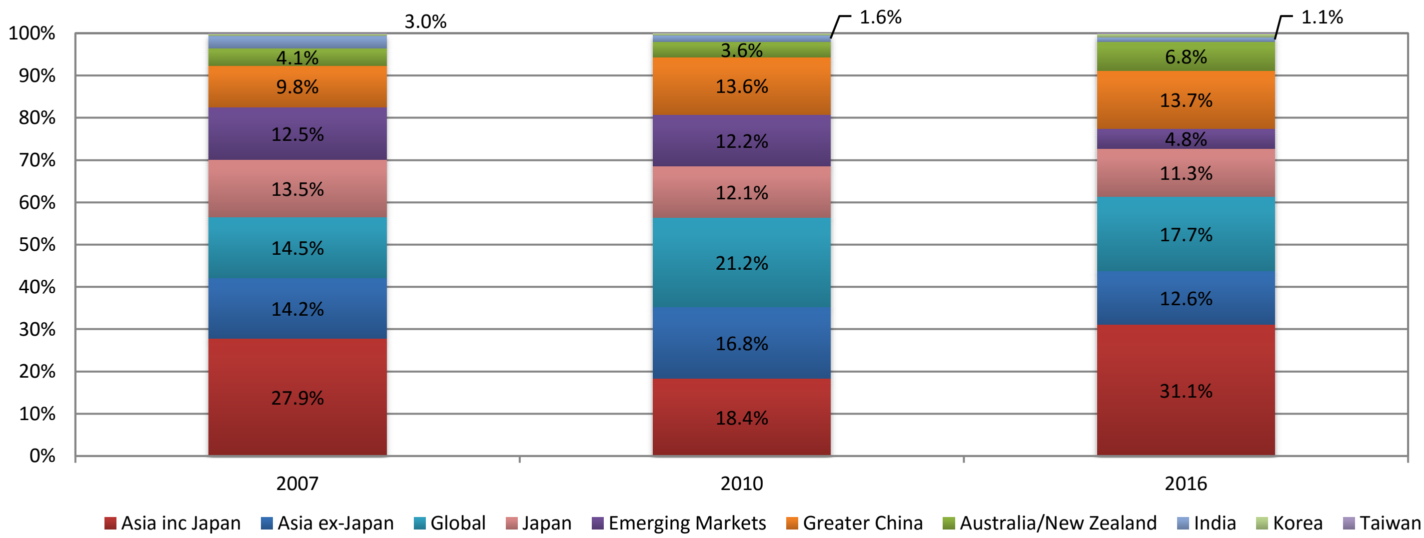

Source: Eurekahedge

(Due to rounding, percentages and totals may vary slightly from the numbers indicated in the figures)

## Geographic mandates

Opportunities present in the Asian hedge fund space continue to attract managers who seek exposure to underlying emerging economies. Across broader geographical mandates, Asia inc Japan and Asia ex-Japan continue to be two popular geographic mandates of choice for hedge fund managers with a collective market share of 43.7% as of 2016. Over the years, managers have increased their allocations into the Asia inc Japan mandate (up 3.3%) while the Asia ex-Japan mandate has seen their share decline by 1.7% since 2007. Manager allocations going into emerging markets declined drastically since 2007 down from 12.5% in 2007 to just 4.8% in 2016, as managers reduced their exposure into emerging market economies in favour of broader mandates. On the other hand, globally mandated hedge funds have seen the market share of their AUM increase by 3.2% since 2007. Across single-country mandates, Greater China mandated hedge funds have seen the market share of AUM grow by 3.9%, followed by Australia/New Zealand mandated hedge funds with an increase of 2.7% in market share over the same period.

**Figure 6: Geographic mandates by assets under management**



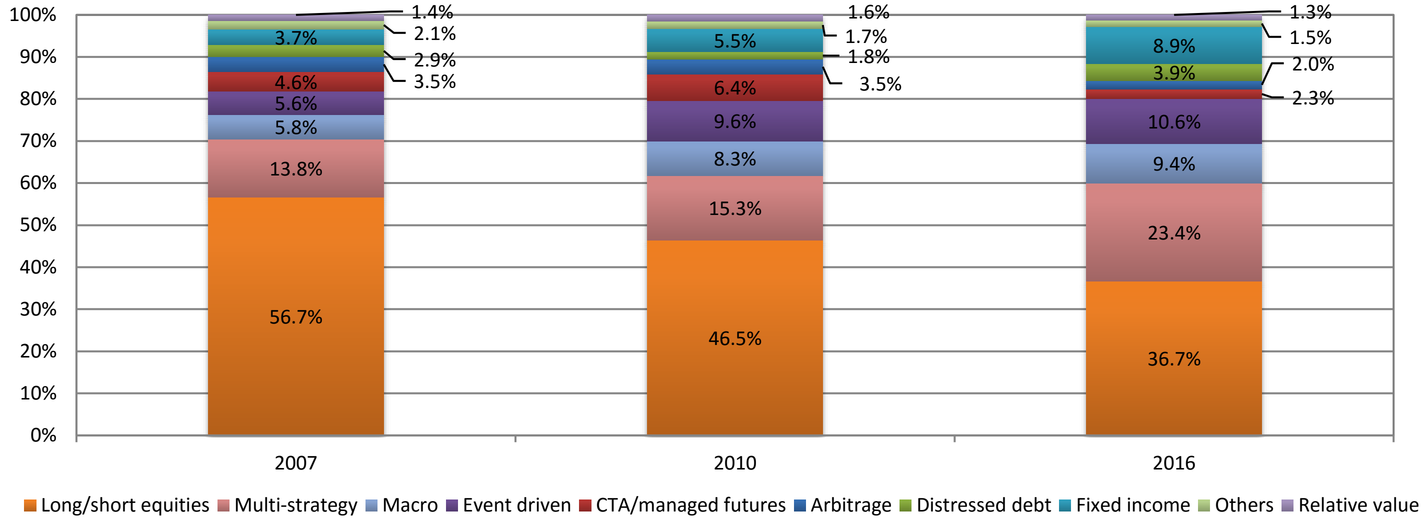

Source: Eurekahedge

(Due to rounding, percentages and totals may vary slightly from the numbers indicated in the figures)

### Strategic mandates

In terms of composition by strategic mandates, the most striking trend we see is a 20% decline in AUM of long/short equity hedge funds from 2007 to 2016. A great part of this contraction occurred during the financial crisis with the *Eurekahedge Asia Long Short Equities Hedge Fund Index* declining 21.80% in 2008. As the Asian hedge fund industry matures, managers are also looking towards other strategies such as event driven, multi-strategy and macro mandates, giving them the opportunity to pursue trading strategies which can sometimes be less correlated to the markets. Since 2007, multi-strategy and event driven hedge funds have increased their AUM by roughly 10% and 5% each.

**Figure 7: Strategic mandates by assets under management**



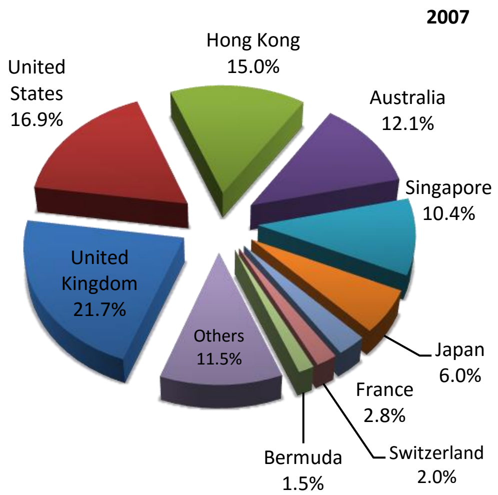

Source: Eurekahedge

(Due to rounding, percentages and totals may vary slightly from the numbers indicated in the figures)

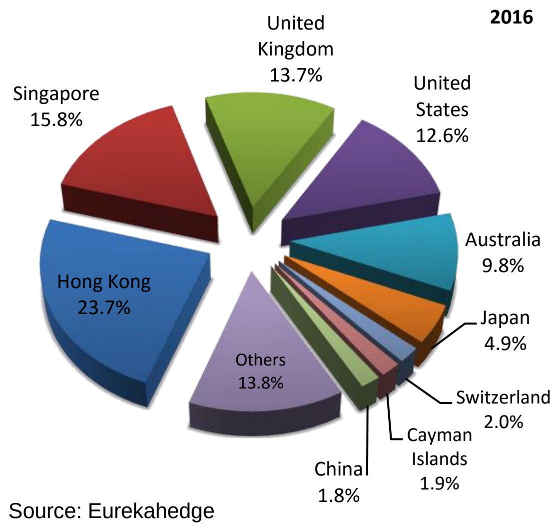
### Head office location

Hong Kong and Singapore are two popular hedge fund locations within Asia itself, with a collective share of 39.5% in 2016 as both locations are home to the increasing population of high net worth individuals in Asia. Australia accounts for another 9.8% of managers located within the entire Asia Pacific region, making the total share of the three countries reach close to half of the entire Asian hedge fund population. Outside of Asia, Asian hedge fund managers also locate in the United Kingdom and United States with both having a total share of 26.3% in 2016. Funds operating outside of United States and United Kingdom tend to be globally mandated or have a broader Asian angle - Asia ex-Japan or Asia inc Japan mandates are common among them as well.

**Figures 8a-8b: Head office locations by number of funds**




Source: Eurekahedge



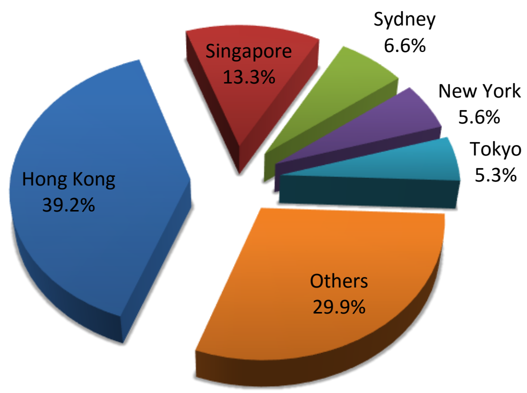

Source: Eurekahedge

(Due to rounding, percentages and totals may vary slightly from the numbers indicated in the figures)

### Top five Asian cities

Figure 9a shows the top five cities for Asian dedicated hedge fund mandates over the last five years. Hong Kong is home to 39.2% of Asian mandated hedge funds, followed by Singapore with 13.3%. Cities such as Sydney and Tokyo are home to hedge funds with an Australia/New Zealand and Japan focus – most of which are long/short equity mandated. Hedge funds based in New York, London and Singapore have a broader focus, but with allocations into underlying Asian markets. While the percentage of the 'Others' category takes roughly one-third of head office locations for Asian hedge funds with some of these locations being London, Shanghai and Melbourne.

**Figure 9a: Top five Asian cities**

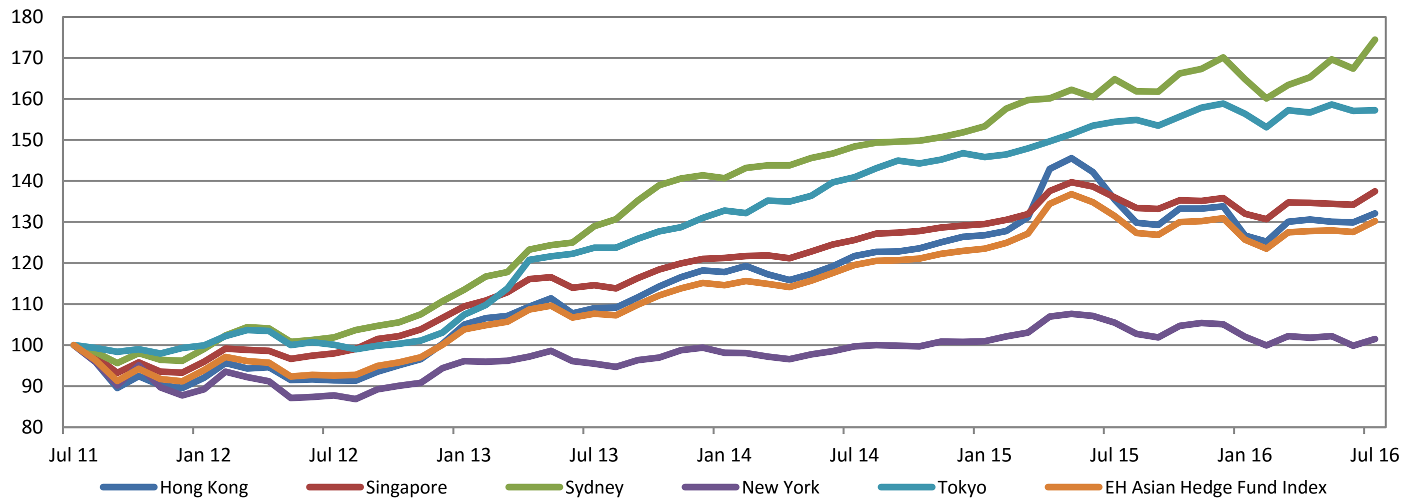



Source: Eurekahedge

(Due to rounding, percentages and totals may vary slightly from the numbers indicated in the figures)

The figure below compares the performance of hedge funds in the top five Asian cities benchmarked against the *Eurekahedge Asian Hedge Fund Index*. The performance of Asian mandated hedge funds located in the top five cities have more or less outperformed the benchmark index, with the exception of New York-based hedge funds. Roughly one-quarter of these New York based hedge funds operate with a global mandate with some of these funds liquidating due to a series of negative returns. On the other hand, Sydney-based hedge funds have outperformed the benchmark index as well as its peers, returning 74.49% over the past five years with majority of these Sydney-based hedge funds being long/short equities mandated and focusing on the Australia/New Zealand markets.

**Figure 9b: Top five Asian cities performance**




Source: Eurekahedge

**Prime brokers**

Tables 3a-b shows the current breakdown of market share of prime brokers by asset under management, compared between 2007 and July 2016. The prime brokerage industry continues to be dominated by large multi-national banks such as Goldman Sachs, Morgan Stanley and Credit Suisse with a collective market share of 54.5% as of 2016. Credit Suisse has also gained considerable market share over the past nine years, up 6.52% climbing three ranks to reach third spot by 2016.

**Tables 3a-3b: Market share of prime brokers by asset under management**

| 2007 | |
|---|---|
| Prime broker | Market share |
| Morgan Stanley | 26.62% |
| Goldman Sachs | 26.49% |
| UBS | 9.15% |
| Bear Stearns | 9.13% |
| Deutsche Bank | 7.50% |
| Credit Suisse | 6.60% |
| Bank of America Merrill Lynch | 3.77% |
| Citibank | 3.23% |
| Fimat | 0.53% |
| Others | 6.98% |

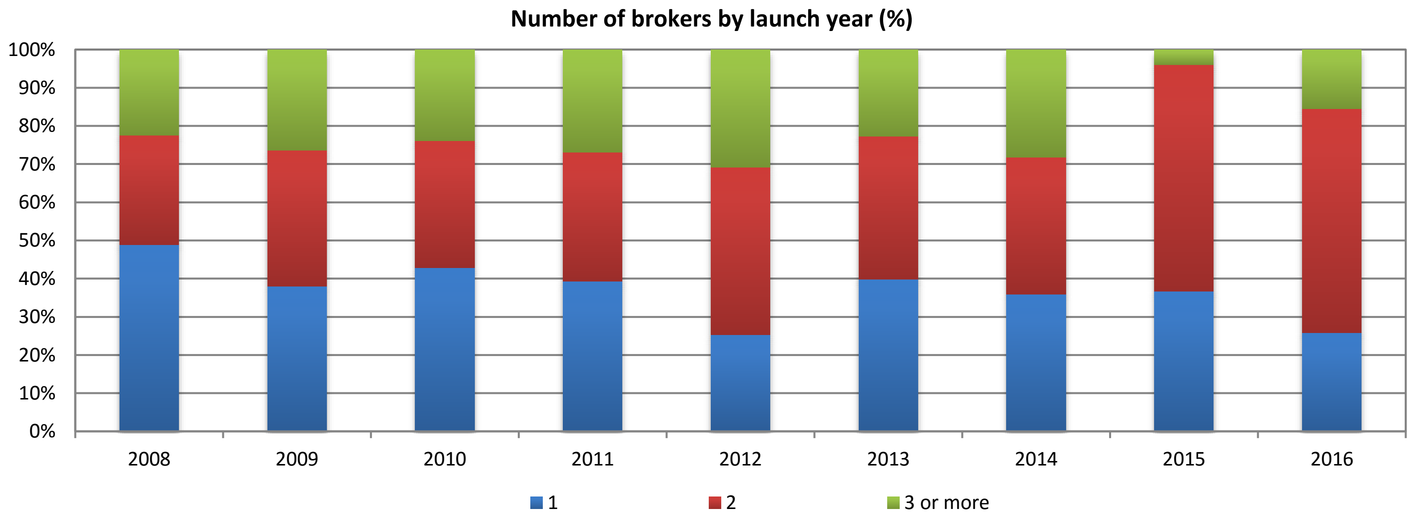
Source: Eurekahedge

| July 2016 | |
|---|---|
| Prime broker | Market share |
| Goldman Sachs | 24.82% |
| Morgan Stanley | 16.56% |
| Credit Suisse | 13.12% |
| UBS | 11.85% |
| Deutsche Bank | 10.75% |
| Citibank | 4.19% |
| Bank of America Merrill Lynch | 4.11% |
| JP Morgan | 3.49% |
| Barclays | 2.38% |
| Others | 8.73% |

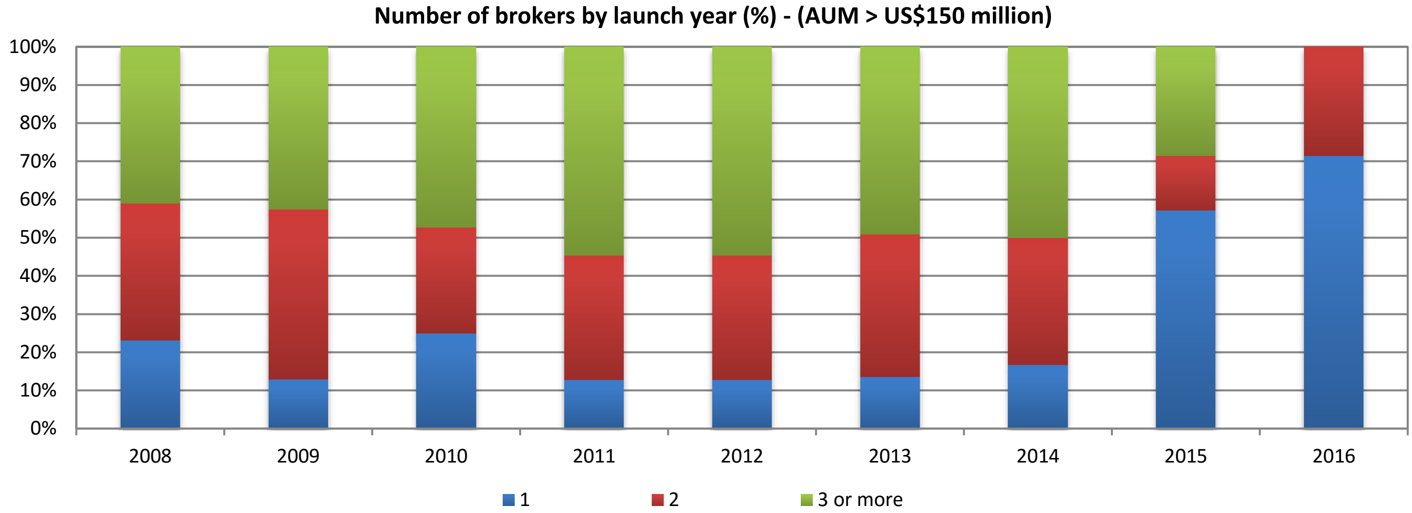
Source: Eurekahedge

Figures 10a-10b below shows the number of prime brokers used by a hedge fund, with the data broken down across new hedge fund launches over the years. The idea is to see if an increasing number of new hedge fund launches utilise multiple brokers in order to reduce counterparty risk. For Asian hedge fund managers, the proportion of hedge funds utilising two brokers have increased over the past eight years, with 2015 seeing the highest proportion of managers in this category. Figure 10b shows the same set of data but for Asian hedge funds with AUM of more than US$150 million. In the years 2011 to 2014, a high proportion of hedge funds utilised three or more prime brokers, potentially as a result of the market uncertainty set across the backdrop of the Eurozone debt crisis. Going into 2015, these larger-sized hedge funds are concentrated into utilising one prime broker, while roughly another 30% choose three or more prime brokers. This trend continues into 2016 with around 70% of new hedge fund launches choosing just one prime broker, while another 30% choose to engage two.

**Figures 10a-10b: Number of prime brokers by launch year**




Source: Eurekahedge




Source: Eurekahedge

## Administrators

State Street, CITCO and HSBC are the administrator of choice for Asian hedge funds, with a market share of 51.7% between them. Since 2007, State Street has been gaining considerable industry recognition in the fund administration space, with its market share up 20% since 2007 while CITCO has increased their market share by 1.5%. We are seeing some consolidation within this industry as the share of the 'Others' category declined from 33.38% in 2007 to 22.81% in 2016. A couple of acquisitions have taken place such as that of Citi's Alternative Investor Business Service by SS&C GlobeOp at the start of 2016. In 1H 2015, BNP Paribas had also acquired the fund administration unit of Credit Suisse (Credit Suisse's Prime Fund Services). The end of 2015 also saw Mitsubishi UFJ's acquisition of UBS's Asset Management's Alternative Fund Services (AFS). The ongoing consolidation within this industry could possibly concentrate assets under administration into the hands of a few key players in the years to come.

**Tables 4a-4b: Market share of administrators by asset under administration**

| 2007 | |
|---|---|
| Administrator | Market share |
| HSBC | 32.17% |
| CITCO | 10.76% |
| State Street | 4.94% |
| Citigroup | 4.11% |
| Goldman Sachs | 3.36% |
| PNC | 2.91% |
| JP Morgan | 2.40% |
| Morgan Stanley | 2.03% |
| Fortis | 1.98% |
| Northern Trust | 1.95% |
| Others | 33.38% |

Source: Eurekahedge

| July 2016 | |
|---|---|
| Administrator | Market share |
| State Street | 25.33% |
| HSBC | 14.13% |
| CITCO | 12.25% |
| SS&C GlobeOp | 8.06% |
| RBC Investor & Treasury Services | 5.30% |
| Citibank | 3.83% |
| Northern Trust | 3.45% |
| BNY Mellon | 1.77% |
| Apex Fund Services | 1.55% |
| Conifer | 1.52% |
| Others | 22.81% |

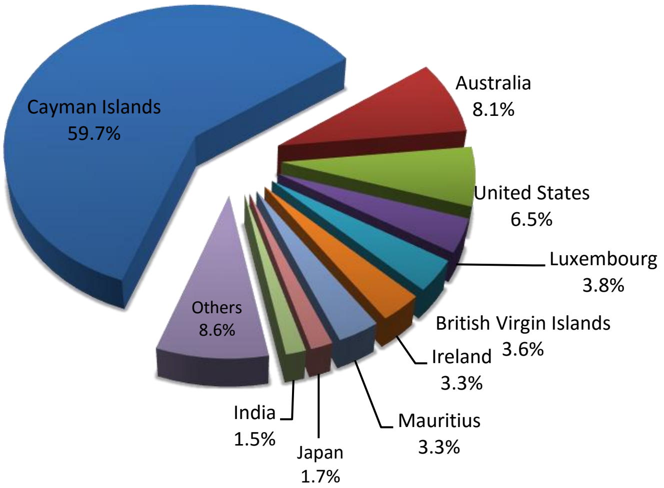
Source: Eurekahedge

## Domicile

In terms of fund domicile, the Cayman Islands account for the majority of Asian hedge funds with a market share of close to 60%. Australia and the United States are also relatively popular choices although their collective market share stands at around

14.6%. Tax and the regulatory environment are the common deciding factors when choosing between offshore and onshore funds. Offshore jurisdictions usually have more lenient tax laws and regulations governing hedge funds and financial products.

**Figures 11: Fund domiciles by number of funds**



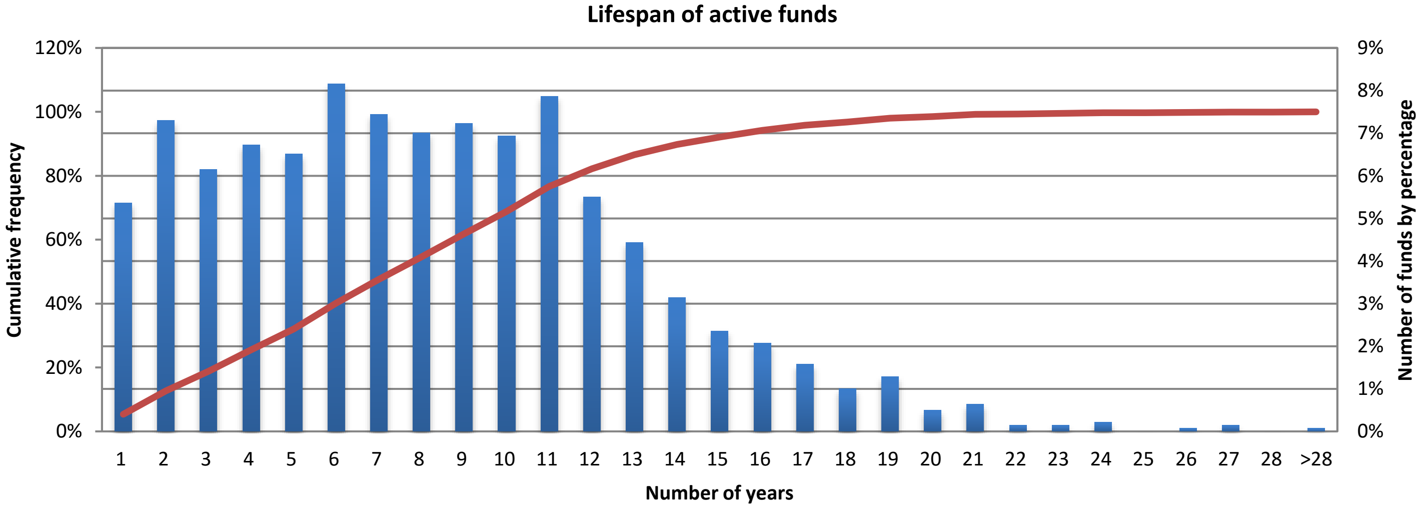

Source: Eurekahedge

**Lifespan**

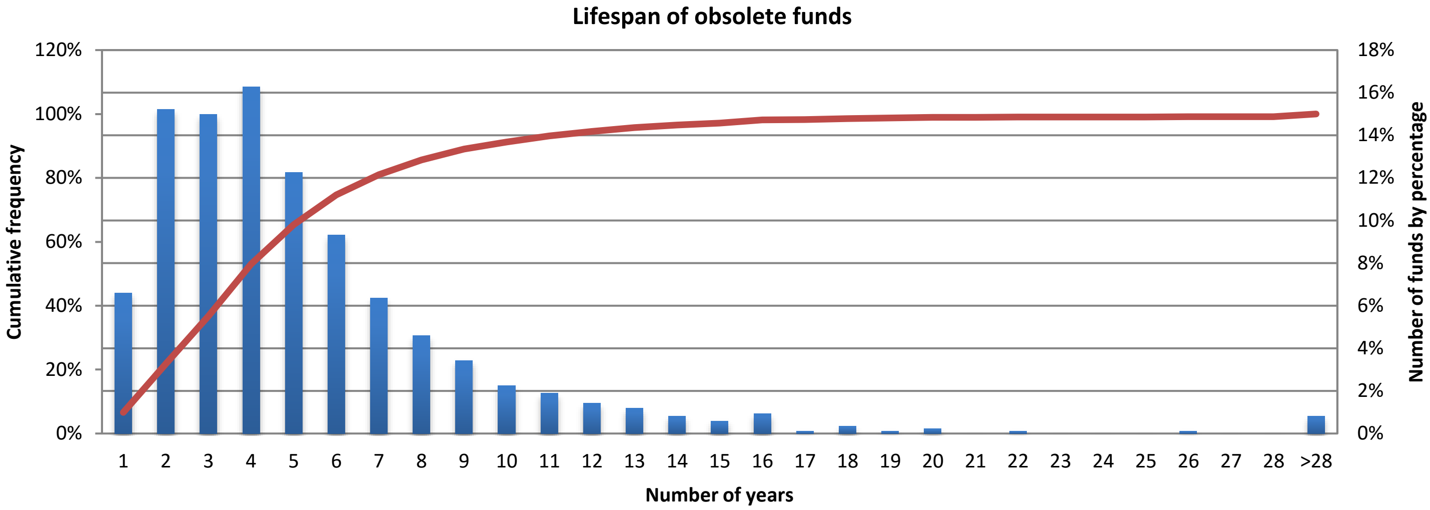
Figures 12a to 12b display the distributions of hedge funds in the Eurekahedge database by their lifespan. We have used the data of 2,246 funds, with 848 closed funds and 1,398 live funds.

The lifespan distributions of both active and obsolete Asian hedge funds listed in the Eurekahedge database show that active funds have a median track record of 7.4 years while that for obsolete funds is 3.8 years. The data also shows that the first few years are the most crucial for determining if a fledgling fund will survive. More than half of obsolete funds ceased operations within the first five years, indicating that they were unable to raise sufficient assets to cover their costs or deliver returns, or a combination of both factors. Among live funds, close to 30% of these funds have more than 10 years of returns with 1.9% of live funds surviving through the bull and bear markets for over 20 years.

**Figures 12a-12b: Distribution of active and obsolete funds by their lifespan**




Source: Eurekahedge

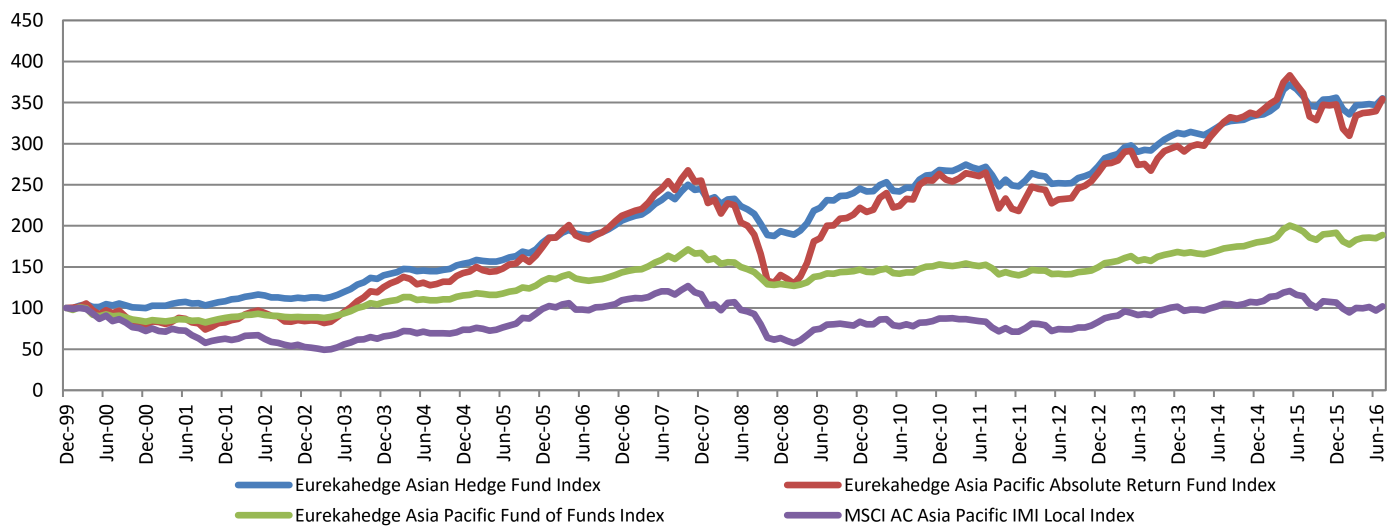



Source: Eurekahedge

# Performance review

This section of the report begins with an evaluation of the overall performance of the Asian hedge fund industry by comparing their returns with alternative investment vehicles. We further look at the performance of Asian fund managers across regional and strategic mandates and conclude with a comparison of their returns across various fund sizes.

**Figure 13: Performance of Asian hedge funds versus market index and other investment vehicles**




Source: Eurekahedge

In Figure 13, Asian hedge fund managers have outperformed competing investment vehicles with the *Eurekahedge Asian Hedge Fund Index* gaining 255.03% since December 1999, compared with the MSCI AC Asia Pacific IMI Local Index which was up only 1.99% over the same period. Fund managers have also beaten absolute return vehicles which gained 254.57% over the same time period, and although the *Eurekahedge Asia Pacific Absolute Return Fund Index* appears to be closely trailing the *Eurekahedge Asian Hedge Fund Index*, it was almost twice as volatile with an annualised standard deviation of 13.32% compared with 7.21% for the *Eurekahedge Asian Hedge Fund Index* over the past five years. Asian hedge fund managers have also adapted better to market volatility post the financial crisis, offering the best risk-to-reward profile- Sharpe Ratio of 0.74 and 0.48 over the last three and five years respectively.

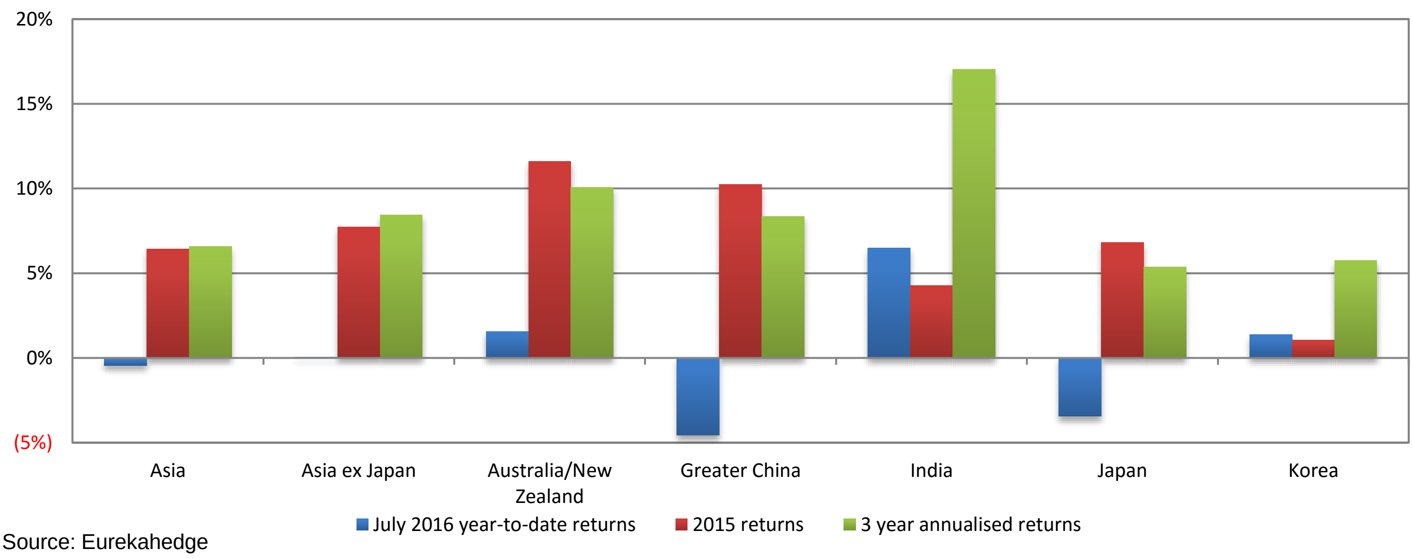
**Table 5: Performance across alternative investment vehicles**

| | Eurekahedge Asian Hedge Fund Index | Eurekahedge Asia Pacific Absolute Return Fund Index | Eurekahedge Asia Pacific Fund of Funds Index | MSCI AC Asia Pacific IMI Local Index |
|---|---|---|---|---|
| July 2016 year-to-date returns | (0.26%) | 1.93% | (1.52%) | (4.37%) |
| 2015 returns | 6.44% | 3.75% | 6.57% | (0.09%) |
| 3 year annualised returns | 6.65% | 8.82% | 5.81% | 3.25% |
| 3 year annualised volatility | 6.27% | 11.79% | 7.07% | 12.29% |
| 3 year Sharpe Ratio (RFR = 2%) | 0.74 | 0.58 | 0.54 | 0.10 |
| 5 year annualised return | 5.48% | 6.02% | 4.33% | 4.13% |
| 5 year annualised volatility | 7.21% | 13.32% | 7.13% | 13.53% |
| 5 year Sharpe ratio (RFR = 2%) | 0.48 | 0.30 | 0.33 | 0.16 |

Source: Eurekahedge

Figure 14a shows the performance of Asian hedge funds across geographic mandates, with all regional mandates in positive territory for both 2015 and July 2016 year-to-date returns. India focused funds outperformed its peers returning 6.49% in July 2016 year-to-date whereas Greater China hedge funds were the worst performer, declining 4.55% as of 2016 year-to-date after a troubling start to the year. Japan focused funds also saw a steep drop of 3.45% year-to-date, though still outperforming the Nikkei which was down 12.95% over the same period. Asia ex-Japan focused hedge funds were up a marginal 0.05% year-to-date, outperforming underlying markets as the MSCI Asia Pacific ex Japan Index fell a steep 4.37% year-to-date. In terms of three-year annualised returns, India and Australia/New Zealand both led the tables, up 17.04% and 10.06% respectively, followed by Asia ex Japan and Greater China mandated hedge funds which were up 8.45% and 8.36%.

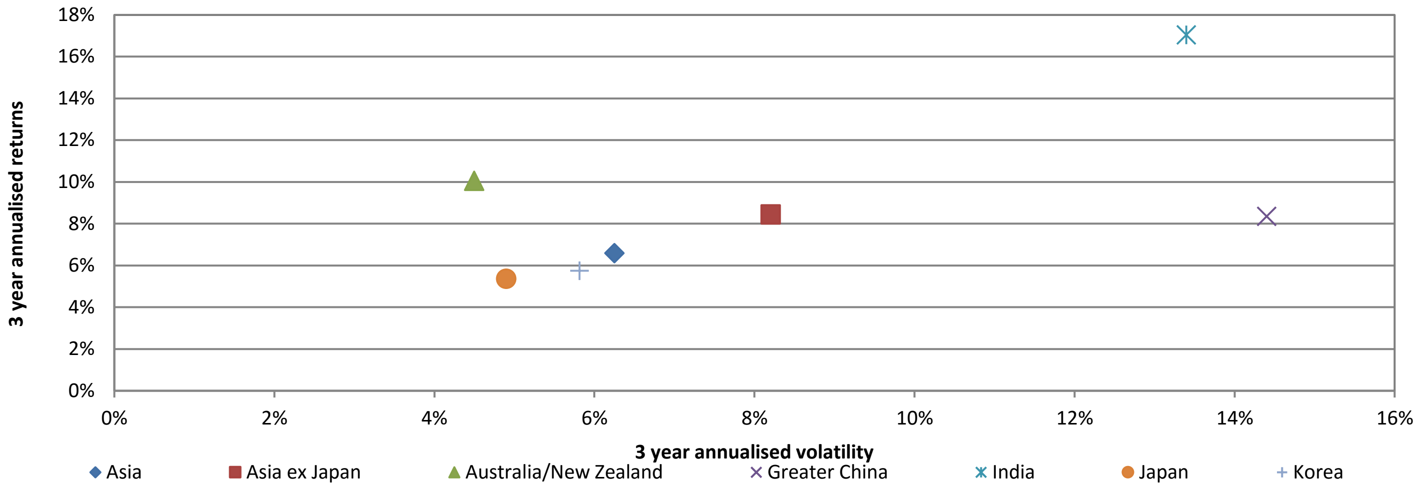
**Figure 14a: Performance across geographic mandates**



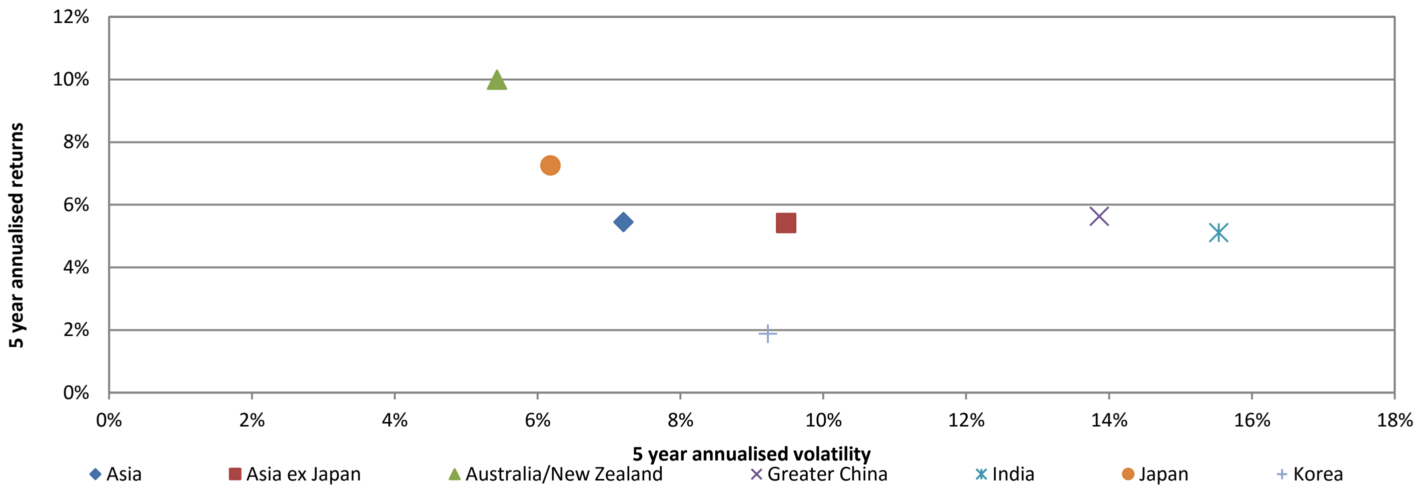

Source: Eurekahedge

Figures 14b-14c show the risk-return profile for Asian hedge funds across geographic mandates. Over a three-year period, India posted the best annualised returns. Australia/New Zealand, Greater China and Asia ex Japan mandated hedge funds are close in terms of annualised returns. Both India and Greater China focused hedge funds are seen to be more volatile compared across all geographic mandates. Over a five-year period, Australia/New Zealand posted the best five-year annualised returns, followed by Japan. Comparing annualised volatilities, India focused hedge funds have the highest five year annualised volatility – 15.54%, followed by Greater China focused hedge funds with 13.86%.

**Figures 14b-14c: Risk-return performance of Asian hedge funds across geographic mandates**




Source: Eurekahedge




Source: Eurekahedge

In terms of their reward to risk profiles, Australia/New Zealand focused funds have delivered excellent risk adjusted returns (Sharpe ratios of 1.79 and 1.47 for both time periods). It is also interesting to note that they offer the lowest annualised volatility (three and five year volatilities of 4.50% and 5.43% respectively), which is in stark contrast to other single country investment mandates such as India and Korea and even lower than that of more diversified mandates such as Asia.

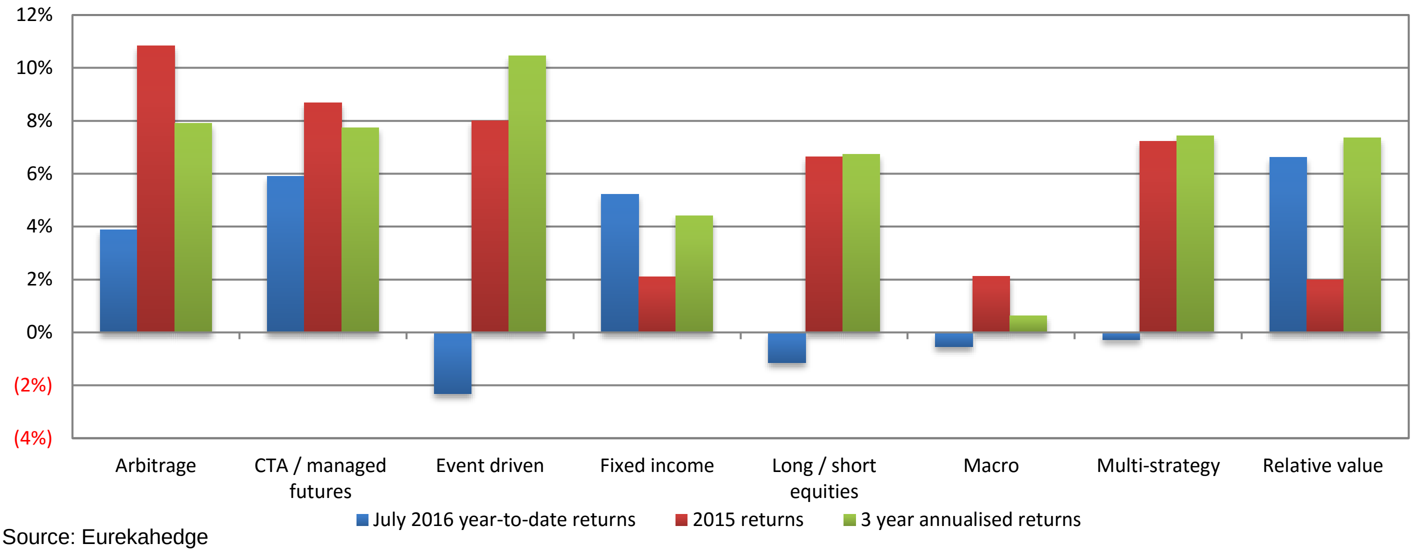
**Table 6: Performance across geographic mandates**

| | Asia | Asia ex -Japan | Australia/New Zealand | Greater China | India | Japan | Korea |
|---|---|---|---|---|---|---|---|
| July 2016 year-to-date returns | (0.44%) | 0.05% | 1.55% | (4.55%) | 6.49% | (3.45%) | 1.37% |
| 2015 returns | 6.44% | 7.72% | 11.61% | 10.24% | 4.28% | 6.81% | 1.07% |
| 3 year annualised returns | 6.59% | 8.45% | 10.06% | 8.36% | 17.04% | 5.37% | 5.76% |
| 3 year annualised volatility | 6.25% | 8.20% | 4.50% | 14.40% | 13.40% | 4.90% | 5.81% |
| 3 year Sharpe Ratio (RFR = 2%) | 0.73 | 0.79 | 1.79 | 0.44 | 1.12 | 0.69 | 0.65 |
| 5 year annualised return | 5.45% | 5.42% | 9.99% | 5.63% | 5.11% | 7.26% | 1.89% |
| 5 year annualised volatility | 7.20% | 9.48% | 5.43% | 13.86% | 15.54% | 6.18% | 9.22% |
| 5 year Sharpe ratio (RFR = 2%) | 0.48 | 0.36 | 1.47 | 0.26 | 0.20 | 0.85 | 0.01 |

Source: Eurekahedge

Relative value outperformed all strategic mandates returning 6.61% year-to-date, followed by CTA/managed futures and fixed income mandated hedge funds returning 5.91% and 5.22% year-to-date respectively. On the other hand, event driven, long/short equities, macro and multi-strategy hedge funds were all in the red year-to-date, with event driven hedge funds posting the steepest loss, down 2.32% over this period. In terms of three-year annualised returns, event driven and arbitrage hedge funds led the tables with gains of 10.46% and 7.90% respectively. This is followed by CTA/managed futures and multi-strategy hedge funds which were up 7.74% and 7.43% respectively.

**Figure 15: Performance across strategic mandates**




Source: Eurekahedge

In Table 7 arbitrage strategies offered the best reward to risk profile over a three year time horizon (Sharpe ratio 2.67) followed by event driven (1.19) and multi-strategy (1.14). Long/short equities, which is the most popular strategy among Asian hedge funds posted risk adjusted returns of 0.66 over the three year time horizon. In terms of volatility levels, arbitrage and macro mandated hedge funds post lower volatilities compared to other strategic mandates – volatility levels for arbitrage and macro hedge funds were 2.21% and 3.24% respectively over the three year period. Over the five year period, their respective volatilities were 3.75% and 3.51%.

**Table 7: Performance across strategic mandates**

| | Arbitrage | CTA/managed futures | Event driven | Fixed income | Long/short equities | Macro | Multi-strategy | Relative value |
|---|---|---|---|---|---|---|---|---|
| July 2016 year-to-date returns | 3.89% | 5.91% | (2.32%) | 5.22% | (1.14%) | (0.54%) | (0.27%) | 6.61% |
| 2015 returns | 10.83% | 8.69% | 7.99% | 2.10% | 6.65% | 2.12% | 7.24% | 2.00% |
| 3 year annualised returns | 7.90% | 7.74% | 10.46% | 4.42% | 6.73% | 0.64% | 7.43% | 7.35% |
| 3 year annualised volatility | 2.21% | 7.23% | 7.09% | 3.26% | 7.21% | 3.24% | 4.76% | 7.14% |
| 3 year Sharpe Ratio (RFR = 2%) | 2.67 | 0.79 | 1.19 | 0.74 | 0.66 | (0.42) | 1.14 | 0.75 |
| 5 year annualised return | 4.67% | 4.58% | 6.15% | 2.63% | 3.98% | 0.38% | 4.39% | 4.35% |
| 5 year annualised volatility | 3.75% | 6.38% | 7.91% | 5.19% | 8.05% | 3.51% | 5.69% | 8.40% |
| 5 year Sharpe ratio (RFR = 2%) | 0.71 | 0.40 | 0.52 | 0.12 | 0.25 | (0.46) | 0.42 | 0.28 |

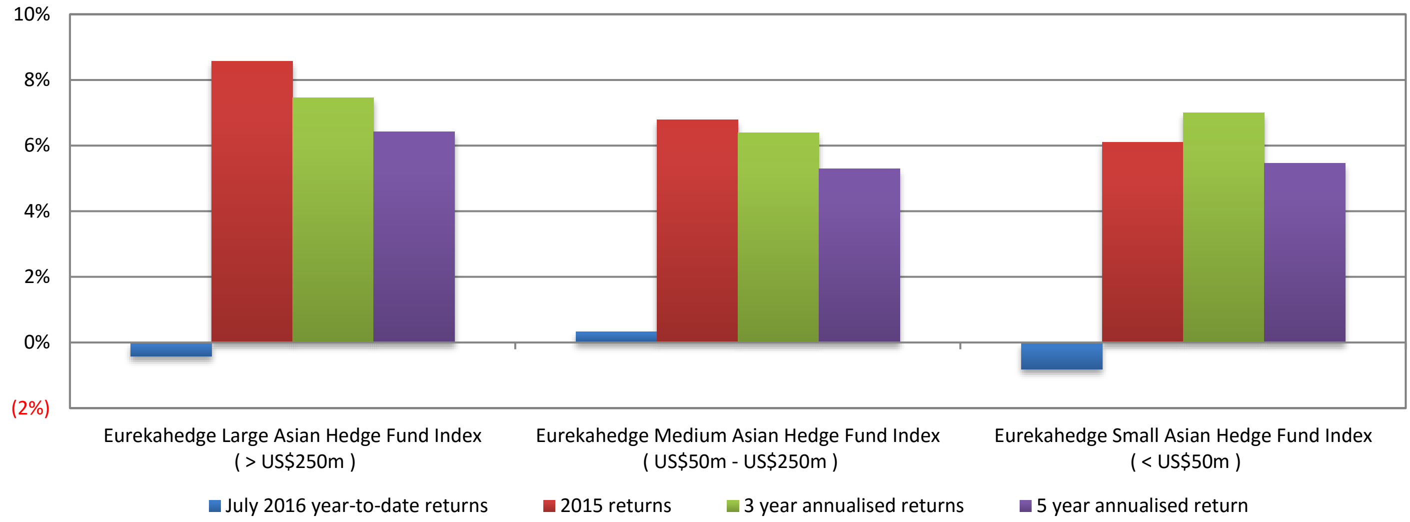
Source: Eurekahedge

**Performance and hedge fund size**

Figure 16 and Table 8 show the performance of Asian hedge funds according to fund size. For July 2016 year-to-date, medium Asian hedge funds (US$50 million to US$250 million) posted the best returns (up 0.33%) in comparison to small and large sized hedge funds, both of which languished into negative territory over the same period. Over the past year, small-sized hedge funds topped the table and were up 8.57%, followed by medium and large sized hedge funds with 6.79% and 6.09% gains respectively.

Over a three and five year time horizon small Asian hedge funds (<US$50 million) have posted the best risk adjusted returns with a Sharpe ratio of 1.01 and 0.75 respectively. In terms of volatility, small hedge funds posted lowest three and five year volatilities – 5.39% and 5.89% respectively.

**Figure 16: Performance of Asian hedge funds by fund size**




Source: Eurekahedge

**Table 8: Performance by fund size**

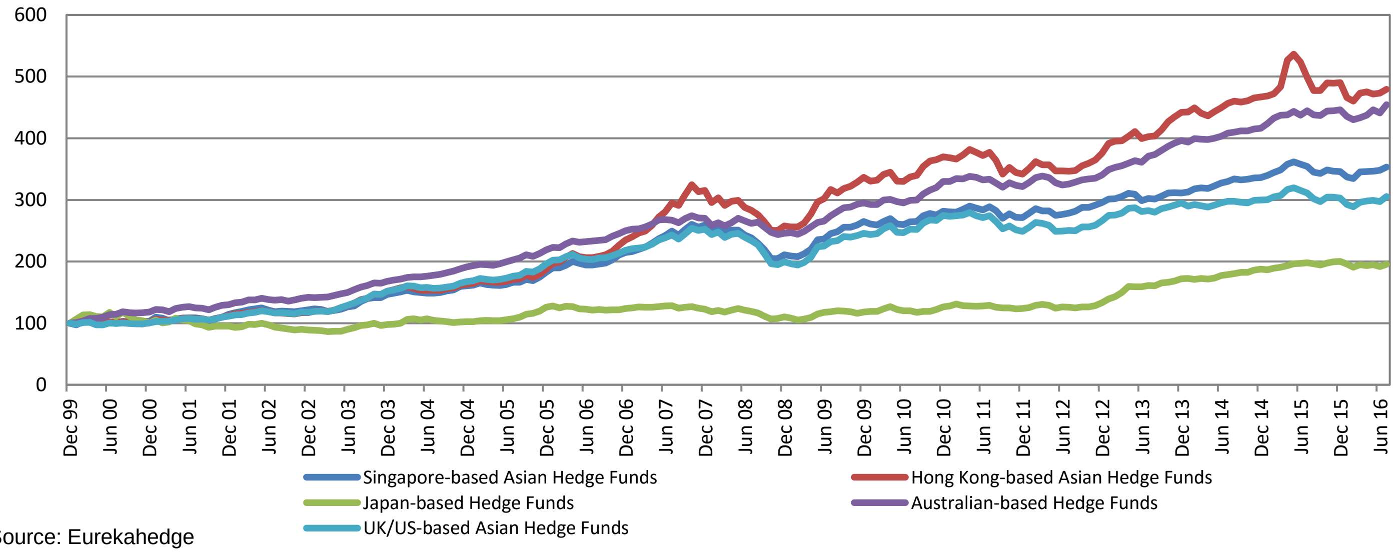
| | EH Small Hedge Fund Index ( < US$50m ) | EH Medium Hedge Fund Index ( US$50m - US$250m ) | EH Large Hedge Fund Index ( > US$250m ) |
|---|---|---|---|
| July 2016 year-to-date returns | (0.41%) | 0.33% | (0.81%) |
| 2015 returns | 8.57% | 6.79% | 6.09% |
| 3 year annualised returns | 7.46% | 6.39% | 6.99% |
| 3 year annualised volatility | 5.39% | 6.66% | 6.06% |
| 3 year Sharpe Ratio (RFR = 2%) | 1.01 | 0.66 | 0.82 |
| 5 year annualised return | 6.43% | 5.29% | 5.46% |
| 5 year annualised volatility | 5.89% | 6.91% | 7.66% |
| 5 year Sharpe ratio (RFR = 2%) | 0.75 | 0.48 | 0.45 |

Source: Eurekahedge

**Top Asian hedge fund locations**

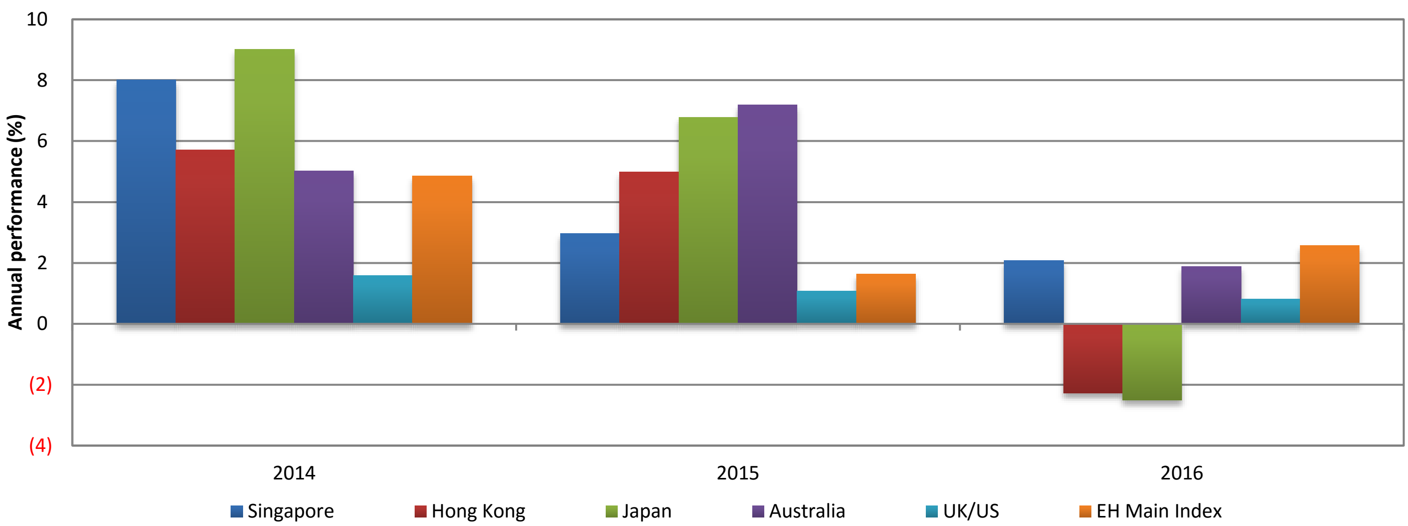
The figure below shows the performance of Asia-based hedge funds by their country location, along with UK/US based hedge funds that operate with an Asian mandate, since December 1999. Hong Kong-based hedge funds have outperformed Asian hedge fund managers based in other locations, gaining 379.30% since December 1999, followed by Australia-based hedge funds which are up 354.49% over the same period. Singapore-based hedge funds were also up, gaining 253.38% while Japan-based hedge funds were up 95.18% over the same period, the smallest overall gain in the group. Outside of Asia, UK/US based Asian hedge funds gained 205.28% during the same period.

**Figure 17: Performance of Asia-based hedge funds by country**




Source: Eurekahedge

**Figure 18: Performance across country location (2014-2016 YTD)**



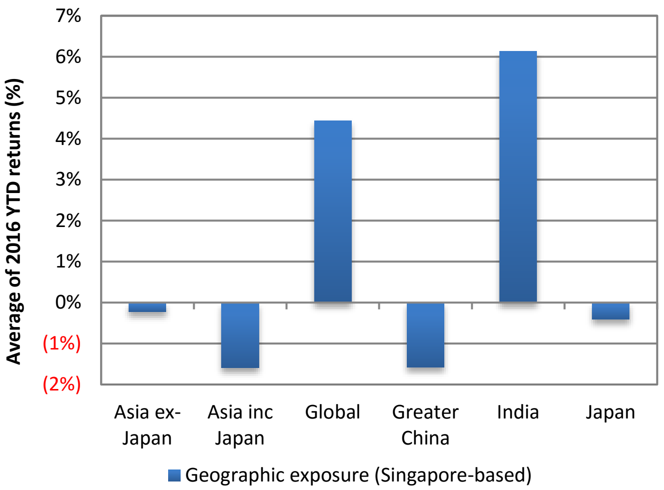

Source: Eurekahedge

As seen in Figure 18, Japan and Singapore-based hedge funds were the top performers in 2014 gaining 9.01% and 8.02% respectively. Japan-based hedge funds also had an impressive year in 2013, gaining 29.09% as the onset of Abenomics spurred confidence in the markets, leading to a bull run in the Japanese stock markets. This is also the case for Singapore-based hedge funds, some of which have exposure into Japanese markets – in fact the only country outside of Japan that hosts the greatest number of Japan investing vehicles.

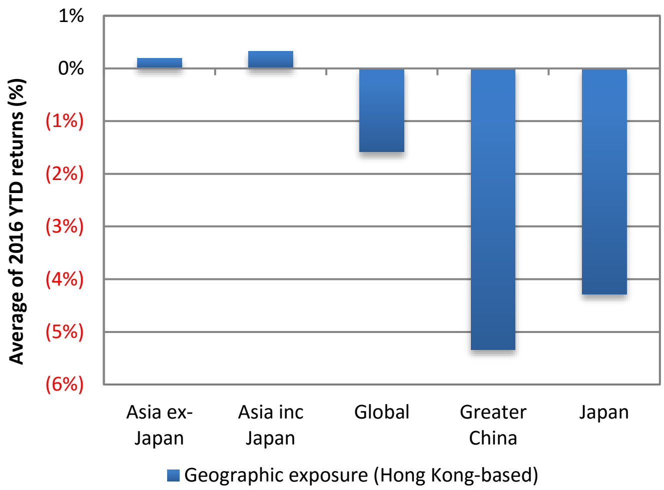
Despite a tumultuous 2015 in the Asian and global financial markets, hedge funds based in the above locations were all in positive territory for the year with Australia-based hedge funds leading gains among peers, up 7.19%. This is followed by Japan-based hedge funds which were up 6.78%. In July 2016 year-to-date, all country-based hedge funds underperformed the *Eurekahedge Hedge Fund Index* which was up 2.57% year-to-date. Japan-based hedge funds witnessed the steepest decline, down 2.50%, followed by Hong Kong-based hedge funds which were down 2.27% over the same period. On the other hand, Singapore-based hedge funds were up 2.08% year-to-date, with majority of these hedge funds operating a long/short equities mandate and with a broader pan-Asia exposure. This is in comparison to Hong Kong and Japan-based hedge funds which tend to operate with a Greater China and Japan angle respectively and hence are more susceptible to volatility in their respective underlying markets.

The following figures below depicts the performance of each country location broken down across its geographical exposure. For Singapore-based hedge funds, those with a focus on India did well for the first seven months of the year, up 6.13%. Funds with a broad global exposure also posted good returns up 4.44% year-to-date. On the other hand, performance was lacklustre for those exposed to Greater China. Greater China-focused hedge funds were in the red for those located in Singapore (-1.57%) and Hong Kong (-5.34%) respectively, with Hong Kong having a larger share of hedge funds with a Greater China angle. Managers with exposure into the Chinese markets struggled to post gains this year as the trading environment remains volatile. The CSI 300 Index was down 14.13% year-to-date as Asian markets saw broad-based sell-off over the past seven months.

**Figures 19a-19e: Performance by geographical exposure across country location**

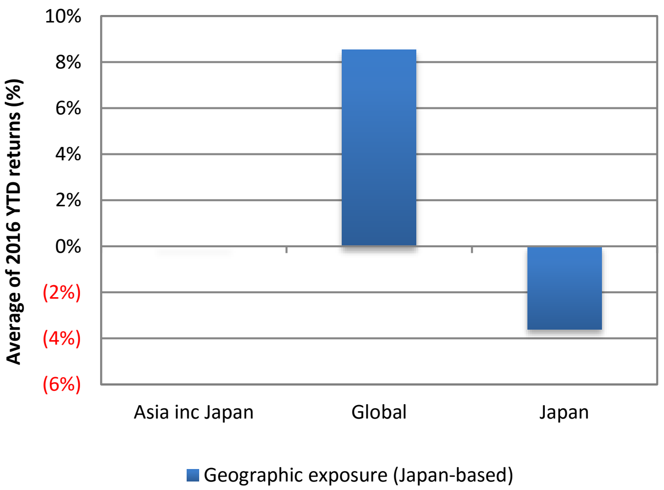



Source: Eurekahedge

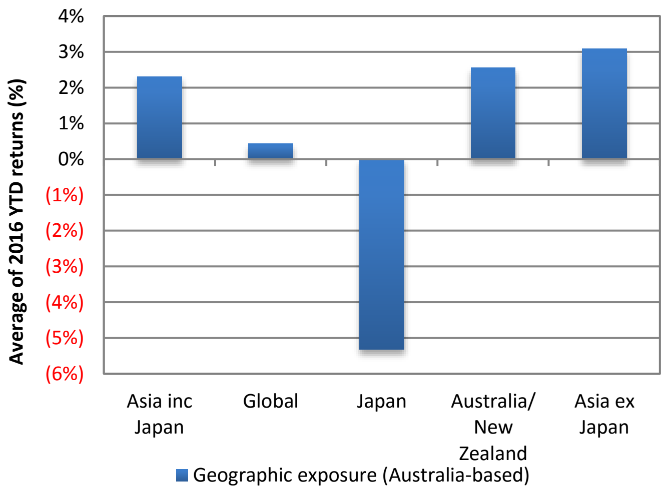



Source: Eurekahedge

Not only for the case of Greater China, hedge funds with a Japan focus have also struggled to post gains. For Japan-based hedge funds, those with a Japan-dedicated angle lost 3.60% year-to-date while for Japan-focused hedge funds based in Australia, year-to-date losses of 5.33% were recorded. Singapore, Hong Kong, United States and United Kingdom are also home to some Japan-focused hedge funds and we are also seeing negative returns for these managers. For the case of Japan, market uncertainty has resulted in investors' flocking to the Yen, which in turn affects the performance of Japan's stock market. Over the past seven months, Japanese stock market also witnessed strong sell-off activity with the Nikkei 225 Index down 12.95% year-to-date.

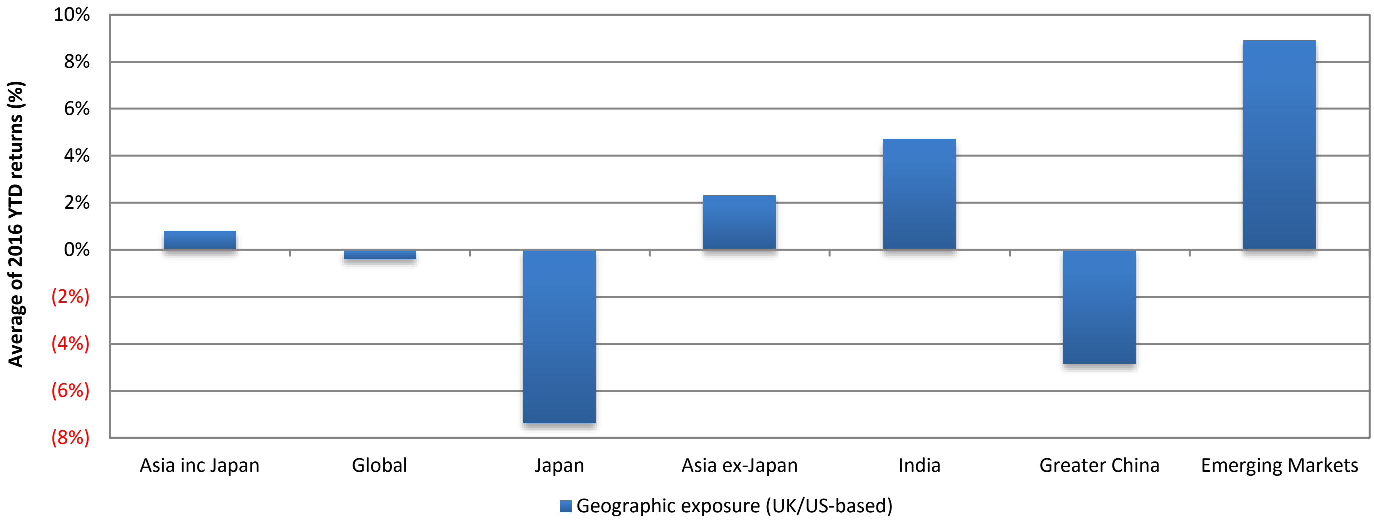



Source: Eurekahedge




Source: Eurekahedge

Interestingly, US/UK-based Asian hedge funds operating with a broad emerging market angle posted the best returns (+8.91%) among other geographical mandates. While these funds have exposure into Asia, a possible reason for this outperformance could also be their exposure into other emerging market economies which received much investors' enthusiasm as emerging market assets rallied and oil prices recovered at the end of Q1 2016.

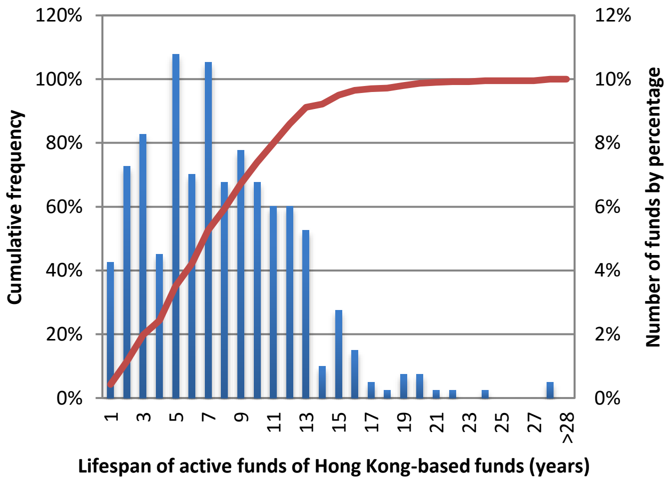



Source: Eurekahedge

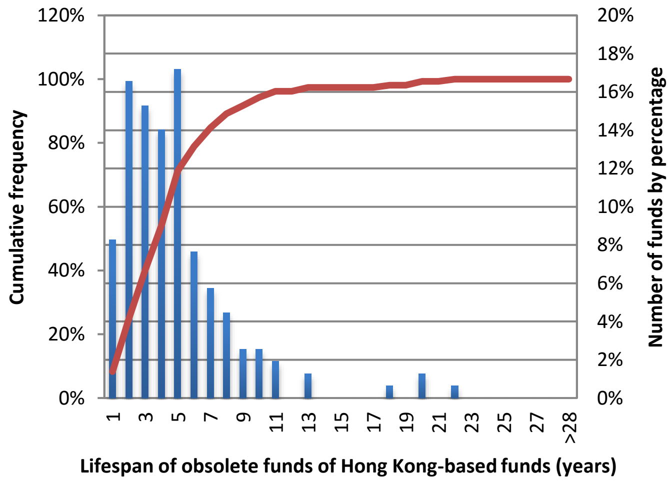
**Lifespan**

Figures 20a-20b show the lifespan of Hong Kong-based hedge funds based on a sample of 400 live funds and 156 obsolete funds. The results for Hong Kong show that active funds have a median track record of 6.6 years while obsolete funds have had a median track record of 3.8 years, with 71.3% of these obsolete funds ceasing operations within the first five years. For funds which are still in operation, only 2% of these live funds have crossed the 20 year-mark.

**Figures 20a-20b: Lifespan of Hong Kong –based hedge funds**



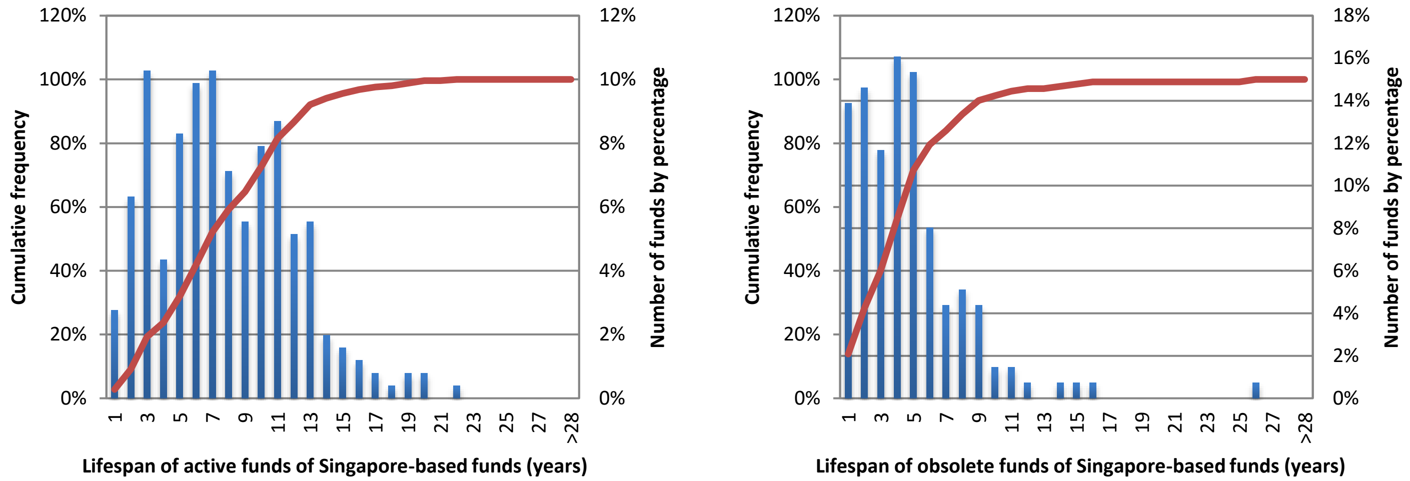

Source: Eurekahedge




Source: Eurekahedge

For the lifespan of Singapore-based hedge funds, the data consists of 253 live funds and 137 obsolete funds. Active Singapore-based hedge funds have a median track record of 6.8 years, while obsolete funds have a median track record of 3.6 years. About 71.5% of Singapore-based hedge funds close shop within the first five years of operation while only 1.2% of live funds cross the 20 year mark.

**Figures 21a-21b: Lifespan of Singapore-based hedge funds**

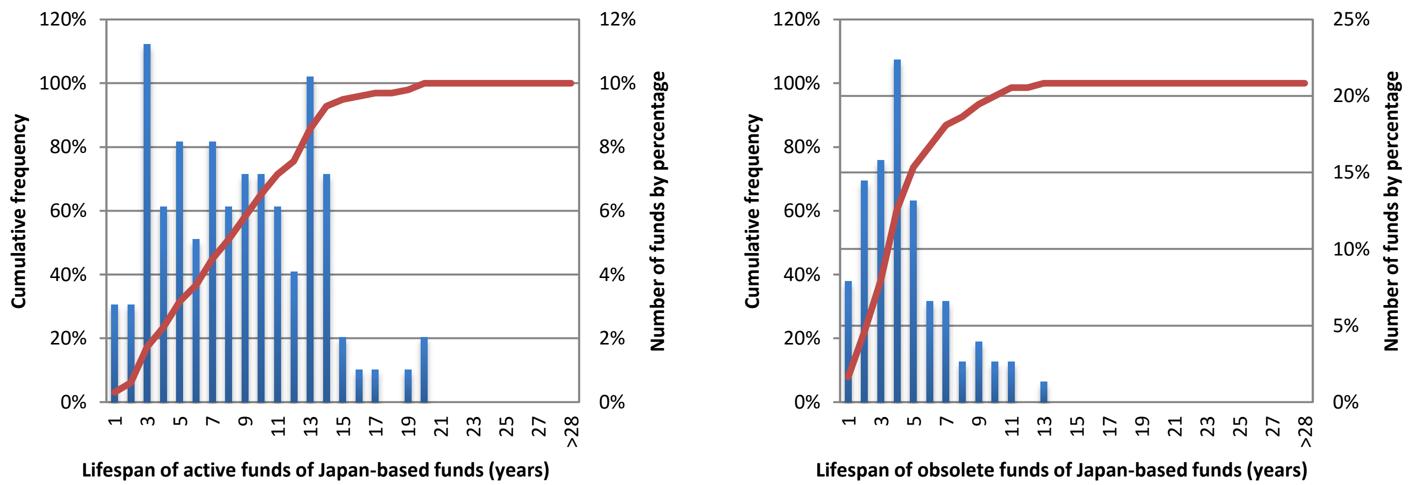



Source: Eurekahedge

Source: Eurekahedge

Figures 22a-22b below shows the lifespan of Japan-based hedge funds based on a sample of 174 hedge funds, of which 98 funds are obsolete and 76 are live funds. The median track record for live Japan-based hedge funds stood at 7.8 years, with around 41% of these funds crossing the 10 year mark. Obsolete hedge funds have a track record of 3.6 years, with 73.6% of these funds ceasing operations within the first five years.

**Figures 22a-22b: Lifespan of Japan-based hedge funds**

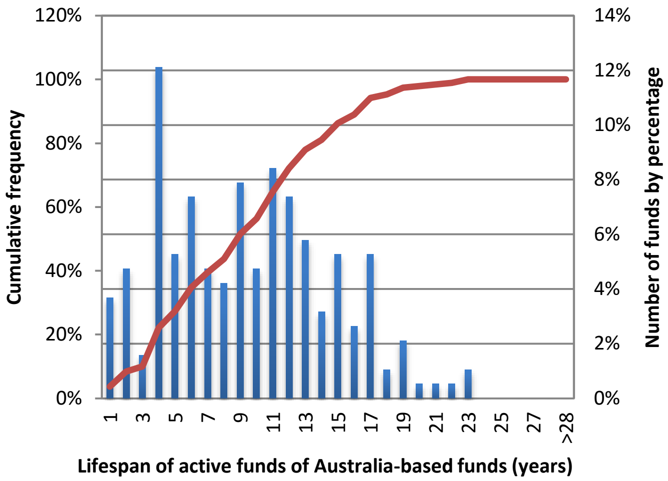



Source: Eurekahedge

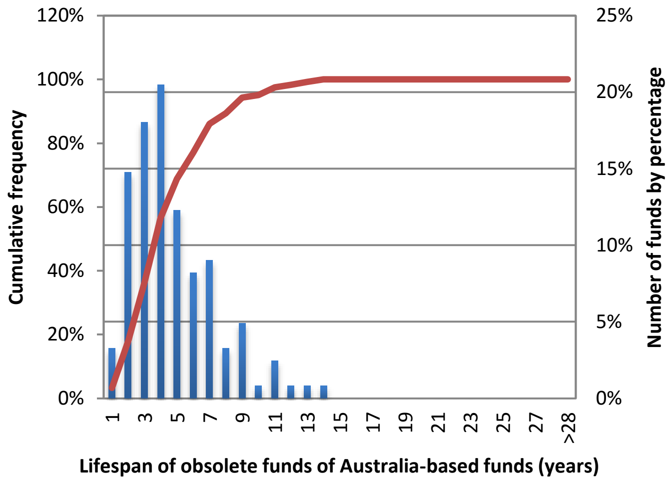
Source: Eurekahedge

Similarly, figures below show lifespan data for Australia-based hedge funds, based on a total of 190 live and 122 obsolete funds. The median track record for Australian-based hedge funds stood at 8.6 years, with 18.9% of live Australian hedge funds crossing the 15 year mark. Obsolete Australian-based hedge funds have a track record of 3.7 years, with 69% of them ceasing operations within the first five years.

**Figures 23a-23b: Lifespan of Australia-based hedge funds**



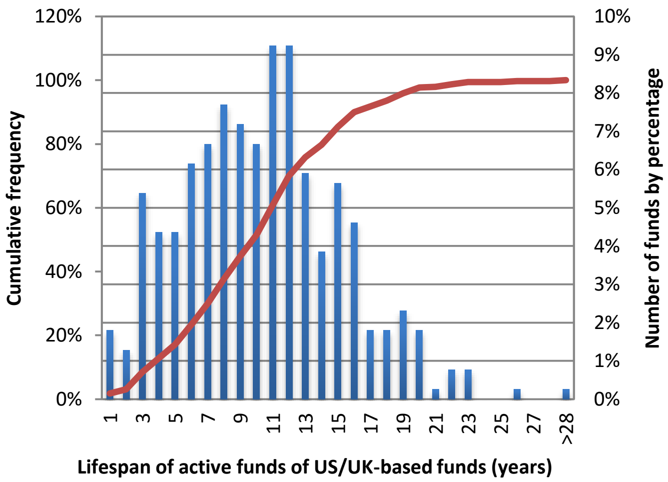

Source: Eurekahedge



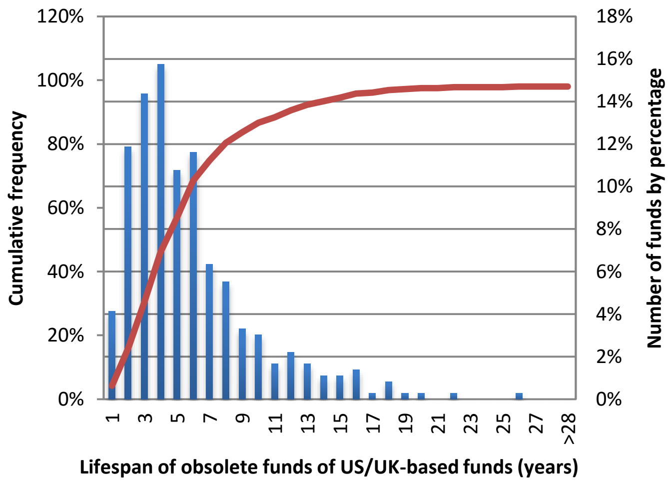

Source: Eurekahedge

The lifespan data for US/UK-based Asian hedge funds consists of 390 live funds and 362 obsolete funds. Close to 55% of live US/UK based Asian hedge funds have a track record of at least 10 years, with the median track record of live funds standing at 9.5 years. Meanwhile, obsolete funds have a median track record of 4.1 years and roughly 56% of them cease operations within the first five years.

**Figures 24a-24b: Lifespan of US/UK-based hedge funds**



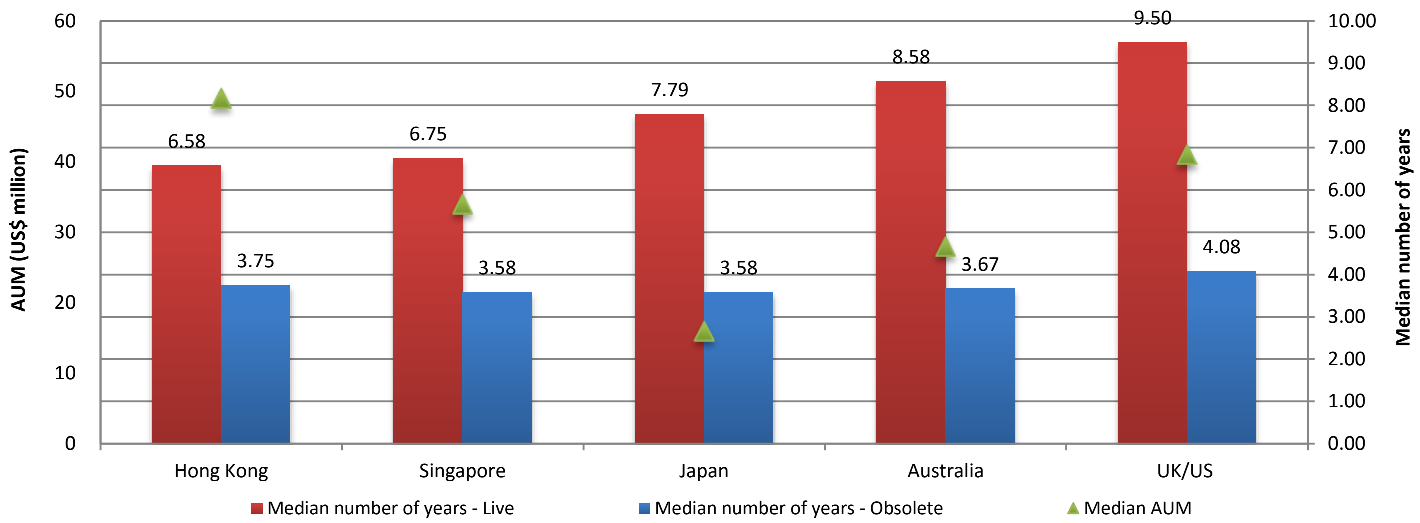

Source: Eurekahedge




Source: Eurekahedge

Figure 25 puts together the median number of years for both live and obsolete funds across all country locations. Seen in the figure below, live UK/US-based Asian hedge funds have the longest median track record (9.5 years). One possible reason for this could be the geographical mandate pursued by these managers coupled with the good access to investors seeking to diversify beyond traditional developed market mandates. Majority of these UK/US-based hedge fund managers operate with a global mandate or a broader pan-Asian theme such as Asia Inc. Japan or Asia ex-Japan, thus making them better positioned for volatile markets and less susceptible to steep drawdowns that single country mandates are prone to. In comparison, live Hong Kong-based Asian hedge funds have the lowest median track record among its peers (6.6 years) with majority of Hong Kong-based hedge funds having significant exposure into Greater China and are long/short equity mandated. While the location allows managers access to investments in the Greater China region, underlying positions are also vulnerable to the volatility in the Chinese stock market, as seen over the past year. Across countries and within obsolete funds, we see that funds rarely cross into the five year mark with 'premature' exits as early as 3.6 years in operation. This serves to emphasise the importance of manager selection especially when seeking to identify the winners of tomorrow from the pool of newer hedge fund start-ups or existing managers with under a 3-year track record.

**Figure 25: Median number of years (live and obsolete) by country locations**




Source: Eurekahedge

| August 2016 Returns (%)* | |
|---|---|
| DSAM Kauthar Global Resources & Mining Fund Ltd | 20.29 |
| Finamatrix Quant Fund | 19.30 |
| The 36 South Cullinan Fund - Class A EUR | 17.53 |
| Golden Bamboo Fund | 10.31 |
| Right Horizons Minerva Fund - India Undervalued | 9.16 |
| Sanchi Credit Value Fund SP | 8.55 |
| Bosheng China Special Value Fund | 8.34 |
| Golden China Fund - Restricted Class | 8.03 |
| La Francaise JKC China Equity - Class GP USD Private Banking | 7.27 |
| Atyant Capital India Fund-I - Class E | 6.03 |

| 3-Month Returns (%) | |
|---|---|
| Finamatrix Quant Fund | 44.27 |
| Sanchi Credit Value Fund SP | 27.91 |
| Atyant Capital India Fund-I - Class E | 22.91 |
| DSAM Kauthar Global Resources & Mining Fund Ltd | 21.99 |
| SAC Global Energy and Mining Fund | 21.52 |
| Golden Bamboo Fund | 21.09 |
| Thai Focused Equity Fund Ltd A | 20.92 |
| Right Horizons Minerva Fund - India Undervalued | 15.93 |
| Prodigy Emerging Markets Opportunities Fund - Class A | 15.50 |
| Redart India Trust | 15.48 |

| 2016 YTD Returns (%) | |
|---|---|
| SAC Global Energy and Mining Fund | 106.24 |
| Geneva Global Macro | 80.42 |
| Finamatrix Quant Fund | 73.47 |
| DSAM Kauthar Gold Fund Ltd | 70.52 |
| DSAM Kauthar Global Resources & Mining Fund Ltd | 52.54 |
| Thai Focused Equity Fund Ltd A | 34.06 |
| Sanchi Credit Value Fund SP | 33.65 |
| Serica Credit Balanced Fund | 25.90 |
| WAM Capital Ltd | 23.77 |
| The Paragon Fund | 21.23 |

| 2015 Returns (%) | |
|---|---|
| Finamatrix Quant Fund | 182.18 |
| Stratton Street PPC Ltd Japan Synthetic Warrant Fund USD | 64.27 |
| Totus Alpha Fund | 53.51 |
| Tairen China Fund | 38.02 |
| Auscap Long Short Australian Equities Fund | 35.95 |
| SPQ Asia Opportunities Fund | 31.75 |
| Credence Oriental QDII Program | 30.44 |
| Credence Global - Class A | 30.30 |
| Bennelong Long Short Equity Fund | 30.03 |
| Geneva Global Macro | 29.77 |

| Annualised Returns (%)** | |
|---|---|
| Finamatrix Quant Fund | 146.08 |
| Geneva Global Macro | 76.04 |
| Edge Investment Management Ltd | 35.90 |
| Auscap Long Short Australian Equities Fund | 30.55 |
| Forefront Alternative Equity Scheme | 29.76 |
| Totus Alpha Fund | 26.82 |
| Golden China Fund - Restricted Class | 25.69 |
| Credence Oriental QDII Program | 25.35 |
| GH China Century Fund | 25.10 |
| Tairen China Fund | 24.83 |

| Annualised Standard Deviation** | |
|---|---|
| Asian Trade Finance Fund | 0.24 |
| GCI Japan Rates Fund | 1.51 |
| Estee I-Alpha | 1.80 |
| PM CAPITAL Enhanced Yield Fund | 2.19 |
| Orchard Landmark | 2.44 |
| Gyrostat Capital Stability Fund | 2.76 |
| MW Japan Market Neutral Fund - Class A JPY | 2.90 |
| GF China RMB Fixed Income Fund Class I | 3.00 |
| Silverdale Fixed Income Fund | 3.02 |
| SuMi TRUST Japan LS I - JPY | 3.09 |

| Sharpe Ratio** | |
|---|---|
| Asian Trade Finance Fund | 26.87 |
| Finamatrix Quant Fund | 8.71 |
| Estee I-Alpha | 7.76 |
| Orchard Landmark | 4.58 |
| Whitehaven SPC Correlation Fund SP - AUD | 3.58 |
| Ellerston Australian Market Neutral Fund | 3.22 |
| Akito Fund JPY - Class A Series 1 | 3.12 |
| Credence Global - Class A | 2.95 |
| PM CAPITAL Enhanced Yield Fund | 2.74 |
| Credence Oriental QDII Program | 2.60 |

| Sortino Ratio** | |
|---|---|
| Orchard Landmark | 62.29 |
| Whitehaven SPC Correlation Fund SP - AUD | 20.06 |
| Akito Fund JPY - Class A Series 1 | 12.37 |
| Ellerston Australian Market Neutral Fund | 11.53 |
| Credence Global - Class A | 9.57 |
| IPEplus Fund 1 | 8.49 |
| Dynamic Japan Long Short Fund | 7.78 |
| Credence Oriental QDII Program | 6.20 |
| PM CAPITAL Enhanced Yield Fund | 6.04 |
| MW Japan Market Neutral Fund - Class A JPY | 5.89 |

* Based on 51.32% of funds which have reported August 2016 returns as at 14 September 2016
** For funds with a track record of at least 8 months as at end-August 2016

EUREKAHEDGE

# HEDGE FUNDS STRATEGY TOP TEN TABLES (AUGUST YTD)**

| Arbitrage | |
|---|---|
| GalNet Alpha Fund LLC | 12.64 |
| Pine River Convertibles Fund LP | 9.59 |
| Macrocapital Adaptive Volatility Accounts | 9.27 |
| Dorset Fund | 7.72 |
| Aroya Investment Partners LP - Class A | 7.07 |
| Tenor Opportunity Fund | 6.60 |
| Estee I-Alpha | 6.60 |
| Yield Strategies Fund II LP | 6.16 |
| Palisade Strategic Master Fund (Cayman) Ltd | 6.08 |
| Orsay Merger Arbitrage Fund - Class 3 EUR | 5.91 |

| CTA/Managed Futures | |
|---|---|
| SafePort Silver Mining Fund | 164.77 |
| SafePort Gold & Silver Mining Fund | 132.25 |
| Martin Fund LP | 34.74 |
| Klassik Strategy | 30.36 |
| Quantitative Global Fund - 3x | 29.28 |
| Kinkopf Capital S&P | 28.77 |
| PPMF(CH) - Physical Gold - I dy USD | 22.93 |
| Tulip Trend Fund - Class A EUR | 21.53 |
| SafePort Precious Metals 95+ Fund | 21.36 |
| Brandywine Symphony Preferred Fund LP | 21.15 |

| Distressed Debt | |
|---|---|
| JLP Credit Opportunity Fund LP | 30.08 |
| Scoggin Worldwide Distressed Fund LLC | 14.09 |
| Hof Hoorneman Phoenix Fund | 13.77 |
| JLP Partners Fund LP | 12.50 |
| Simplon International Ltd | 11.67 |
| Polygon Distressed Opportunity Fund Ltd | 11.01 |
| Orchard Landmark | 8.53 |
| KS Capital Partners LP | 4.16 |
| Dalton High Yield Mortgage Fund Ltd | 3.75 |
| Regan Distressed Credit Fund LP | 1.14 |

| Event Driven | |
|---|---|
| ECF Value Fund I LP | 27.01 |
| Equinox Russian Opportunities Fund Ltd | 19.14 |
| Mountaineer Partners LP | 18.49 |
| Accendo Capital | 16.29 |
| Perlman Family Office Fund | 16.28 |
| Scoggin Capital Management II LLC | 14.59 |
| Scoggin Overseas Fund Ltd | 14.22 |
| P2 Capital Master Fund LP | 13.58 |
| Barington Companies Equity Partners LP | 13.03 |
| CFP Opportunity Fund - Class A | 13.01 |

| Fixed Income | |
|---|---|
| Cheyne Total Return Credit Fund December 2017 USD Accumulating | 34.33 |
| Sanchi Credit Value Fund SP | 33.65 |
| Serica Credit Balanced Fund | 25.90 |
| Bradesco Global Funds - Brazilian Hard Currency Bond Fund - Class I USD | 22.00 |
| Galloway Emerging Markets High Yield Bond Fund | 19.49 |
| Brasil Capital FIC FIM | 18.36 |
| Magna New Frontiers Fund - Class N | 17.41 |
| IP All Seasons Asian Credit Fund | 17.20 |
| Copernico Latam High Yield Fund - Class B USD | 16.75 |
| Silverdale Fund SP-1 | 15.21 |

| Long/Short Equities | |
|---|---|
| AIS Gold Fund LP | 120.03 |
| Left Brain Capital Appreciation Fund LP | 84.80 |
| Teraz Fund | 77.70 |
| DSAM Kauthar Gold Fund Ltd | 70.52 |
| Primevestfund | 66.25 |
| Brasil Capital Equity Fund | 60.39 |
| BNY Mellon Brazil Equity Fund - Class A USD | 55.45 |
| GRT Energy & Income LP | 53.22 |
| Squadra Equity Fund Ltd - Brazil Long-Biased Equity Class USD | 53.11 |
| DSAM Kauthar Global Resources & Mining Fund Ltd | 52.54 |

| Macro | |
|---|---|
| Geneva Global Macro | 80.42 |
| Finamatrix Quant Fund | 73.47 |
| Robust Methods | 19.83 |
| GLI Fund LLC | 17.59 |
| Warburton Global Fund | 15.65 |
| IPM Systematic Currency Fund - Class A USD | 15.00 |
| AIS Balanced Fund LP | 14.81 |
| Haidar Jupiter Fund LLC | 14.54 |
| Macromoney Global Investments Ltd | 14.23 |
| Ibiuna Hedge STR FIC de FIM | 13.63 |

| Multi-Strategy | |
|---|---|
| SAC Global Energy and Mining Fund | 106.24 |
| SW8 Strategy Fund LP - Class B | 60.54 |
| Oceana Selection FIA | 34.93 |
| Oceana Long Biased FIA | 30.54 |
| BNY Mellon ARX Income FIA | 30.53 |
| BNY Mellon ARX Long Term FIA | 28.69 |
| Bresser Fund - Class Brazil Equities | 27.40 |
| GAP Equity Value I FIC FIA | 25.29 |
| Velocity American Energy Master I LP | 24.53 |
| Dynamo Cougar | 22.83 |

| Relative Value | |
|---|---|
| Runestone Capital Fund - Class B | 37.18 |
| SAR Volatility Arbitrage (VOLA) Managed Account | 26.09 |
| Tom Capital Growth Fund | 20.20 |
| Blue Diamond Non-Directional Fund | 16.15 |
| Gondor Partners LP | 15.73 |
| Snow Capital Investment Partners LP | 14.56 |
| Assenagon Alpha Volatility (I) | 11.93 |
| CFB Convertibles Fund PLC - Thailand Sub Fund | 11.38 |
| Zafiro Capital Commodities Trading Fund - Class A | 9.76 |
| Polar Star IDS Qualified Investor Hedged Fund | 8.88 |

* Based on 51.32% of funds which have reported August 2016 returns as at 14 September 2016
** For funds with a track record of at least 8 months as at end-August 2016

| August 2016 Returns (%)* | |
|---|---|
| PB Islamic Asia Strategic Sector Fund | 3.89 |
| Hayat India Equity Fund | 3.59 |
| Public Islamic Asia Tactical Allocation Fund (PIATAF) | 3.34 |
| Public China Ittikal Fund | 3.03 |
| PB Islamic Asia Equity Fund | 2.90 |
| Public Islamic Select Treasures Fund | 2.29 |
| Public Asia Ittikal Fund | 2.23 |
| Public Islamic Asia Dividend Fund | 2.23 |
| PB Islamic Equity Fund | 1.78 |
| CIMB Islamic DALI Equity Theme Fund | 1.77 |

| 3-Month Returns (%) | |
|---|---|
| Deutsche Noor Precious Metals Securities - Class A | 18.13 |
| Mandiri Investa Atraktif - Syariah (Mitra Syariah) | 12.77 |
| Atlas Islamic Stock Fund | 10.27 |
| Atlas Pension Islamic Fund - Equity Sub Fund | 10.01 |
| Meezan Tahaffuz Pension Fund - Equity Sub Fund | 9.49 |
| Mandiri Investa Syariah Berimbang | 9.04 |
| PB Islamic Asia Strategic Sector Fund | 8.62 |
| Public China Ittikal Fund | 8.55 |
| CIMB S&P Ethical Asia Pacific Dividend ETF | 8.54 |
| Public Islamic Asia Tactical Allocation Fund (PIATAF) | 8.13 |

| 2016 YTD Returns (%) | |
|---|---|
| Deutsche Noor Precious Metals Securities - Class A | 87.70 |
| Mandiri Investa Atraktif - Syariah (Mitra Syariah) | 20.88 |
| Atlas Islamic Stock Fund | 20.03 |
| Atlas Pension Islamic Fund - Equity Sub Fund | 19.36 |
| Meezan Tahaffuz Pension Fund - Equity Sub Fund | 18.13 |
| Meezan Islamic Fund | 17.31 |
| Al Meezan Mutual Fund | 16.53 |
| Mandiri Investa Syariah Berimbang | 14.62 |
| WSF Asian Pacific Fund - USD I | 12.53 |
| Meezan Balanced Fund | 10.20 |

| 2015 Returns (%) | |
|---|---|
| Public Islamic Opportunities Fund | 18.70 |
| Public Islamic Select Treasures Fund | 18.35 |
| CIMB Islamic Greater China Equity Fund | 17.63 |
| CIMB Islamic Small Cap Fund | 17.06 |
| Meezan Tahaffuz Pension Fund - Equity Sub Fund | 16.50 |
| Public Asia Ittikal Fund | 15.42 |
| CIMB Islamic Asia Pacific Equity Fund - MYR | 14.87 |
| Public Islamic Asia Tactical Allocation Fund (PIATAF) | 14.57 |
| PB Islamic Asia Equity Fund | 13.05 |
| PB Islamic Asia Strategic Sector Fund | 12.82 |

| Annualised Returns (%)** | |
|---|---|
| Atlas Pension Islamic Fund - Equity Sub Fund | 21.59 |
| Meezan Tahaffuz Pension Fund - Equity Sub Fund | 19.47 |
| Atlas Islamic Stock Fund | 16.01 |
| Public Islamic Select Enterprises Fund | 12.90 |
| Public Islamic Opportunities Fund | 12.54 |
| WSF Global Equity Fund - USD I | 11.07 |
| Public Islamic Equity Fund | 10.06 |
| Mandiri Investa Syariah Berimbang | 9.78 |
| Public Islamic Dividend Fund | 9.77 |
| MNC Dana Syariah | 9.26 |

| Annualised Standard Deviation** | |
|---|---|
| Boubyan KWD Money Market Fund | 0.06 |
| Boubyan USD Liquidity Fund | 0.07 |
| Public Islamic Money Market Fund | 0.14 |
| PB Islamic Cash Management Fund | 0.15 |
| CIMB Islamic Deposit Fund | 0.16 |
| CIMB Islamic Money Market Fund | 0.17 |
| PB Islamic Cash Plus Fund | 0.22 |
| Emirates Islamic Money Market Fund Limited Institutional Share Class I USD | 0.24 |
| Watani USD Money Market Fund | 0.33 |
| Al Rajhi Commodity Mudarabah Fund - USD | 0.47 |

| Sharpe Ratio** | |
|---|---|
| Public Islamic Money Market Fund | 20.39 |
| PB Islamic Cash Management Fund | 17.82 |
| Boubyan KWD Money Market Fund | 17.45 |
| PB Islamic Cash Plus Fund | 12.22 |
| Meezan Tahaffuz Pension Fund - Money Market Sub Fund | 9.66 |
| Boubyan USD Liquidity Fund | 9.42 |
| Meezan Tahaffuz Pension Fund - Debt Sub Fund | 6.40 |
| Al Rajhi Commodity Mudarabah Fund - USD | 6.37 |
| Atlas Pension Islamic Fund - Debt Sub Fund | 6.31 |
| CIMB Islamic Money Market Fund | 5.58 |

| Sortino Ratio** | |
|---|---|
| CIMB Islamic Money Market Fund | 60.32 |
| Atlas Pension Islamic Fund - Debt Sub Fund | 25.57 |
| Meezan Tahaffuz Pension Fund - Debt Sub Fund | 24.88 |
| MNC Dana Syariah | 17.59 |
| Public Islamic Income Fund | 11.87 |
| Public Islamic Select Bond Fund | 6.36 |
| PB Islamic Bond Fund | 5.83 |
| Public Islamic Bond Fund | 5.78 |
| Atlas Pension Islamic Fund - Money Market Sub Fund | 3.30 |
| Mashreq Al-Islami Income Fund - Class B | 2.85 |

* Based on 51.01% of funds which have reported August 2016 returns as at 14 September 2016
** For funds with a track record of at least 12 months as at end-August 2016

# EUREKAHEDGE REGION/STRATEGY INDEX RETURN MATRIX

| | Arbitrage | | CTA/managed futures | | Distressed debt | | Event driven | | Fixed income | | Long/short equities | | Macro | | Multi-strategy | | Relative value | | Insurance-linked securities | | All strategies | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns | August 2016 | 2016 YTD Returns |
| Asia | 0.88 | 5.62 | 0.26 | 6.18 | 0.83 | 1.88 | (1.40) | (3.85) | 0.93 | 6.17 | 0.59 | (0.53) | 0.16 | (0.38) | 0.34 | (0.08) | 0.72 | 6.99 | | | 0.40 | (0.05) |
| Asia ex Japan | | | 0.26 | 2.00 | | | 4.13 | 0.11 | 1.09 | 5.00 | 1.40 | 1.43 | | | 0.28 | (1.54) | 0.72 | 12.93 | | | 1.26 | 1.54 |
| Asia inc Japan | | | 0.26 | 6.18 | 0.83 | 1.88 | 2.34 | (0.09) | 1.22 | 7.33 | 0.91 | 0.50 | 0.16 | (0.38) | 0.32 | 0.13 | 0.72 | 6.99 | | | 0.89 | 1.24 |
| Australia / New Zealand | | | | | | | | | | | (0.11) | 1.39 | | | | | | | | | (0.14) | 1.81 |
| Emerging markets | | | 0.26 | (1.69) | | | 2.84 | 4.55 | 1.32 | 9.21 | 1.27 | 5.12 | 1.40 | 6.56 | 0.70 | 8.90 | 0.72 | 21.66 | | | 1.16 | 6.76 |
| Europe | 0.22 | 1.90 | (1.58) | (4.70) | | | 1.74 | 5.03 | 1.20 | 3.61 | 0.46 | (2.73) | 0.53 | (2.66) | 3.02 | 1.75 | 0.28 | 4.98 | | | 0.66 | (0.95) |
| Greater China | | | | | | | | | | | 2.42 | (2.25) | | | 0.41 | (4.87) | | | | | 2.17 | (2.28) |
| India | | | (0.73) | (3.23) | | | | | | | 1.25 | 9.91 | | | 1.19 | 1.95 | | | | | 0.89 | 7.02 |
| Japan | | | | | | | (6.37) | (9.33) | (0.67) | (4.61) | (0.18) | (3.85) | | | 0.40 | (1.67) | | | | | (0.93) | (4.51) |
| Korea | | | | | | | | | | | | | | | | | | | | | (1.20) | 0.21 |
| North America | 0.74 | 4.91 | (0.29) | 2.20 | 3.13 | 7.78 | 1.41 | 11.33 | 0.69 | 4.45 | 0.86 | 4.47 | (1.55) | 0.07 | (0.67) | 5.94 | 1.79 | 6.27 | | | 0.57 | 4.54 |
| Latin America | | | | | | | | | 1.69 | 12.97 | 0.45 | 18.95 | 1.17 | 11.09 | 0.76 | 14.83 | | | | | 0.71 | 15.75 |
| Latin America (Offshore) | | | | | | | | | | | 0.27 | 18.83 | | | 0.33 | 10.30 | | | | | 0.36 | 12.85 |
| Latin America (Onshore) | | | | | | | | | 1.43 | 12.36 | 0.51 | 19.06 | 1.17 | 11.47 | 0.87 | 15.88 | | | | | 0.81 | 16.55 |
| All Regions | 0.60 | 3.82 | (1.91) | 1.98 | 1.71 | 7.79 | 1.42 | 6.36 | 0.86 | 4.64 | 0.61 | 1.50 | (0.32) | 1.38 | 0.22 | 3.15 | 0.81 | 5.20 | 0.93 | 3.23 | 0.03 | 2.58 |

* Based on 51.32% of funds which have reported August 2016 returns as at 14 September 2016