

# Monthly Report – December 2018

## Clear Alpha Global Index (CLAXGBL Index) +0.59% in December, -4.17% in the last 12 months

### About the Clear Alpha Global Index and its sub-indices

The Clear Alpha Global Index™ is designed as a benchmark for the universe of trading strategy indices. It is calculated and published daily. Its constituents and their respective weights are updated once a quarter.

At the end of November 2018, the database contained 2,538 live and 2,108 discontinued trading strategy indices. Indices are considered for inclusion in the Clear Alpha Global Index™ if they i) are unique due to either a different algorithm, sponsor, region or asset class, and ii) aim to be un-correlated to traditional asset benchmarks.

### Clear Alpha Global Index Monthly Performance, 2012 to 2018

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2012	0.94%	0.44%	-0.28%	-0.16%	-0.38%	-1.17%	0.47%	0.30%	-0.14%	-0.36%	0.25%	0.30%	0.18%
2013	0.14%	-0.19%	0.14%	0.27%	-0.01%	-0.47%	-0.02%	-0.40%	0.38%	0.67%	0.15%	-0.78%	-0.14%
2014	-0.75%	0.10%	0.32%	0.35%	0.95%	0.64%	-0.75%	0.74%	-0.51%	-0.37%	0.79%	0.07%	1.57%
2015	0.09%	0.34%	0.21%	-0.45%	-0.05%	-1.27%	0.45%	-1.88%	0.31%	0.80%	0.77%	-0.11%	-0.81%
2016	-0.08%	1.03%	0.25%	-0.37%	-0.13%	0.70%	0.64%	-0.21%	0.45%	-0.02%	0.05%	0.04%	2.37%
2017	0.42%	1.26%	0.17%	0.77%	0.23%	-0.15%	0.61%	0.92%	0.19%	0.90%	0.30%	0.53%	6.31%
2018	0.20%	-2.07%	0.50%	0.02%	-0.06%	-0.58%	0.17%	-0.18%	-0.27%	-1.93%	-0.60%	0.59%	-4.17%

### The Global Index reflects the performance of all indices across our database, rather than a product managed by Clear Alpha

	Dec Return	1Y Return	1Y Sharpe		5Y Return	5Y Sharpe	
Global Index	0.59%	-4.17%	-1.60		5.07%	0.12	
Arbitrage	1.23%	-2.02%	-0.79		13.64%	0.56	
Carry	-3.02%	-5.29%	-1.13		-4.99%	-0.32	
Commodity	8.60%	2.74%	0.11		35.07%	0.86	
Fixed Income	0.40%	10.75%	1.64		29.82%	0.88	
Volatility	-0.67%	-8.26%	-1.02		4.90%	0.05	
Economic Indicators	0.03%	-6.25%	-1.82		-2.36%	-0.36	
Research	-0.82%	-11.54%	-1.87		-15.94%	-0.71	
Macro	1.23%	1.28%	-0.12		10.68%	0.44	
Momentum	0.41%	-4.72%	-1.13		1.66%	-0.09	
Mean Reversion	-1.55%	-9.35%	-0.88		1.34%	-0.05	
Trend Following	1.25%	-2.90%	-1.05		1.17%	-0.11	

Stock markets sold-off in December: the MSCI World Index fell -7.7% and the VIX index rose to 25.4 (+41%). Nevertheless, the Global Index managed to recover +0.59% helped by a rebound in Commodity Arbitrage positions, a reversal in Natural Gas futures (down -34%), as well as gains from trend following and backwardation algorithms.

The S&P 500 index was down -9.2%, the Euro Stoxx 50 index down -5.4%, and the Nikkei 225 index down -10.5%; EM currencies posted mixed returns (flat on average), oil prices fell further (US crude oil futures lost -11.1%), as did interest rates in major curves (the USD 2 year swap rate finished -32bps lower, at 2.66%). Sovereign and investment grade bond prices rallied across the board while high yield bonds declined. The Federal Reserve raised its borrowing costs by +25bps to 2.5% but signalled it would pause tightening in 2019, lifting bond prices.

Commodity Arbitrage strategies made substantial gains, up +8.6% in aggregate, as Natural Gas futures fell back to their levels before the spike in November, and oil curves steepened further in a bearish market. Trend following strategies posted profits as well, benefitting from the bond rally and currency trends in AUD, CAD and Emerging Markets. Commodity backwardation algorithms benefitted from short positions in oil as well as in agriculture futures.

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On the negative side, the Carry and Mean Reversion sub-indices finished at the bottom (-3.02% and -1.55% respectively). Carry positions were undermined by adverse G10 currency movements, particularly a rally in JPY vs USD (+3.3%) and AUD (+7.4%). Mean reversion strategies suffered in the equity sell-off; in particular, the S&P 500 index suffered an extended losing streak between December 3<sup>rd</sup> and 24<sup>th</sup>, before staging a small recovery at the end of the month.

Overall, 2018 was a year to forget for Alternative Risk Premia as the Global Index declined -4.2%, its worst yearly return in the past decade.

## Top 3 Sub-index Constituents<sup>1</sup> (ranked by 1 year Sharpe ratio)

		1Y Sharpe	1Y return	Dec-18 return	YTD return	2017 return	2016 return	2015 return
<b>Arbitrage - Carry</b>								
1) CIBC FX G10 USD Carry	G10 FX Carry Arbitrage	1.2	8.5%	-1.7%	8.5%			
2) Societe Generale FX G10 Carry	G10 FX Carry Arbitrage	1.0	8.2%	-0.8%	8.2%	-7.5%	3.6%	-7.3%
3) DB Ascent Broad	Global FX Carry Arbitrage	0.4	5.8%	-0.5%	5.8%	3.4%	28.2%	-13.7%
<b>Arbitrage - Commodity Yield Optimization</b>								
1) CIBC COT Enhanced Roll Agriculture	Commodity Congestion Arbitrage	2.0	3.1%	0.2%	3.1%	1.5%	2.2%	0.3%
2) Societe Generale Roll Alpha 1 Vt8	Commodity Future Arbitrage	1.9	12.1%	6.8%	12.1%	10.1%	6.2%	4.8%
3) UBS CMCI Essence	Commodity Future Arbitrage	1.7	4.5%	1.7%	4.5%	2.6%	1.1%	1.6%
<b>Arbitrage - Fixed Income</b>								
1) Nomura Macro Duration	Global Yield Curve Carry Arbitrage	1.8	2.6%	0.5%	2.6%	0.3%	0.3%	0.5%
2) Societe Generale BOSS	Global Yield Curve Carry Arbitrage	1.7	7.1%	0.4%	7.1%	1.4%	-0.5%	2.2%
3) Morgan Stanley Enhanced FRB+ USD	USD Forward Rate Bias Arbitrage	1.6	3.2%	0.6%	3.2%	1.7%	-0.1%	1.2%
<b>Arbitrage - Volatility</b>								
1) Credit Suisse Adaptive Volatility Index All Rolls USD	Short USD Swaption Straddles	1.6	6.5%	-0.3%	6.5%	6.5%	6.5%	8.6%
2) BOA Merrill Lynch Short Synthetic Variance Index - GL	Short SPDR Gold ETF Variance Swaps	1.3	8.6%	0.5%	8.6%	11.7%	7.8%	14.4%
3) BOA Merrill Lynch Short Synthetic Variance Index - HY Series	Short HYG ETF Variance Swaps	1.2	14.9%	3.4%	14.9%	6.6%		
<b>Economic Indicators - Research</b>								
1) Morgan Stanley EF Global Quality	Global Equity Long/Short Quality Factor	1.6	9.1%	-0.2%	9.1%	3.7%		
2) BOA Merrill Lynch Japan Long-Short Volatility Index	Japan Equity Long/Short Low Vol Factor	1.6	9.1%	1.7%	9.1%	-0.8%		
3) BOA Merrill Lynch Europe Long-Short Volatility	Europe Equity Long/Short Low Vol Factor	1.5	8.5%	1.4%	8.5%	2.9%		
<b>Economic Indicators - Macro</b>								
1) Nomura Macro Cross-Country	Government Bonds Relative Value Investing	1.9	3.3%	0.1%	3.3%	0.4%	0.2%	1.3%
2) Barclays CRYSTAL	USD & EUR Short-Term IR Futures Macro Strategy	1.8	2.3%	0.2%	2.3%	1.4%	0.7%	1.2%
3) RBS Pure	Long Short Eurodollar futures	1.4	2.4%	0.6%	2.4%	0.2%	-0.4%	0.6%
<b>Momentum - Mean Reversion</b>								
1) Societe Generale Interest Rates Strangle Premium Euro	Short EUR Swaption Strangle	1.4	2.8%	0.2%	2.8%	4.6%	6.5%	-2.0%
2) Societe Generale Tactical Short	Europe Single Stock Mean Reversion - Short	0.7	2.1%	0.4%	2.1%	0.9%	1.3%	-2.2%
3) BNP Paribas Equity Extremum Reversion	SPX, SX5E, CAC, DAX, SMI and UKX Mean Reversion	0.4	4.3%	2.0%	4.3%	8.3%	0.1%	-2.3%
<b>Momentum - Trend Following</b>								
1) Nomura Macro Pulse	USD, EUR, JPY, GBP & CAD Short Term Interest Rates	2.3	2.0%	0.2%	2.0%	0.9%	0.2%	0.2%
2) BNP Paribas BPSTAR USD Enhanced Series 3	USD Swap Rates Trend Following	1.9	2.2%	0.2%	2.2%	1.1%	0.2%	-0.4%
3) Commerzbank Multi Asset Sharpe	Global Multi-Asset Macro Allocation (Sharpe)	1.6	14.2%	3.4%	14.2%	5.8%		

annual performance is blank for indices that were not live during the full year

<sup>1</sup> All performance figures are based on daily snapshots of published returns, not allowing for corrections or restatements at a later stage. In order for all indices to be comparable, the performance numbers in this report have been adjusted when an index is not published in USD or its return is not expressed as a total return.

**Disclaimer:** to the extent the information relates to the Clear Alpha Global Index™ (the "Index"), the information contained herein (including historical prices or values) has been obtained from sources that Clear Alpha considers to be reliable; however, Clear Alpha does not make any representation as to, or accepts any responsibility or liability for, the accuracy or completeness of the information contained herein. For a more complete description of the Clear Alpha Global Index™, reference is made to the document Index Methodology, available from Clear Alpha on request. All data are historical estimations using available data. Clear Alpha does not make any representation herein regarding the advisability of investing in any product based on the Index. Past performance is no guarantee of future performance.

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## Arbitrage Strategies (CLAXARB Index)

**+1.23% in December, -2.02% in the last 12 months**

### Carry Strategies (CLAXCAR Index) -3.02% in Dec, -5.29% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	-2.11%	2.39%	2.75%	0.13%	0.72%	0.37%	-0.30%	0.73%	-2.61%	0.38%	0.12%	-1.14%	1.30%
2015	-2.82%	1.02%	-0.83%	0.97%	-0.87%	-1.42%	-1.92%	-4.18%	-1.76%	2.88%	0.74%	-1.03%	-9.04%
2016	-1.20%	-0.44%	2.68%	0.09%	-0.90%	1.69%	0.28%	0.55%	0.74%	1.90%	0.38%	0.88%	6.78%
2017	-0.05%	1.91%	-0.39%	-0.61%	-0.37%	0.22%	0.61%	-0.40%	0.67%	-0.63%	-0.42%	1.44%	1.95%
2018	-0.45%	-0.17%	-0.29%	0.91%	-0.84%	-1.05%	1.42%	-5.05%	1.49%	-0.43%	2.28%	-3.02%	-5.29%

FX Carry strategies gave back their November gains during December; overall the Carry sub-index finished the year down -5.29%. Losses came mostly from short positions on low yield currencies such as JPY (up +3.3%), CHF (+1.3%), EUR (+0.9%) or DKK (+0.9%). These were compounded by further losses on high yield currencies in the G10 sector<sup>2</sup> which declined alongside energy prices. On the other hand, price movements in EM currencies were mixed<sup>3</sup>. G10 focussed strategies lost large amounts (-2.5% on average across 11 indices) while EM positions saw smaller declines (-0.9% on average, for 12 strategies). Euro Stoxx 50 dividend arbitrage strategies were flat on average (but made the top three spots in the table below); their beta exposure often offset the convergence gains of dividend futures.

#### Top 3 movers (ranked by 1 month returns)

Arbitrage - Carry	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) Credit Suisse Dividend Alpha Euro Stoxx 50 Dividend Arbitrage	1.3%	-3.0%	-1.5	-3.0%
2) BOA Merrill Lynch Long-Short Dividend F Euro Stoxx 50 Dividend Arbitrage	0.4%	1.2%	-0.2	1.2%
3) BNP Paribas Converse Spread Europe Euro Stoxx 50 Dividend Arbitrage	0.2%	1.4%	-0.2	1.4%

### Commodity Yield Optimisation (CLAXCYO Index) +8.60% in Dec, +2.74% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	-3.92%	1.63%	1.16%	0.77%	1.29%	1.57%	2.13%	0.79%	-0.20%	0.41%	0.04%	1.53%	7.29%
2015	0.71%	0.08%	0.30%	-3.96%	-1.41%	0.33%	0.87%	-0.70%	-0.12%	2.72%	4.07%	2.97%	5.75%
2016	0.80%	2.96%	-0.05%	-2.11%	0.03%	1.04%	2.58%	-0.02%	0.13%	0.40%	0.73%	-1.29%	5.22%
2017	2.41%	1.14%	0.24%	1.13%	-0.19%	0.78%	0.90%	2.03%	-0.11%	0.21%	1.61%	-0.42%	10.13%
2018	1.92%	2.16%	0.73%	-1.37%	1.75%	-3.26%	2.10%	2.34%	-2.48%	-0.04%	-8.78%	8.60%	2.74%

Never give up! Last month we expected the Commodity Arbitrage sub-index would finish 2018 in the red for the first time since we started the index, but we were wrong. It turns out the November price spike in natural gas futures was an overreaction; February 2019 contracts fell back -33% to 2.94 in December, having rallied +38% month before. Some algorithms crystallized losses in the process, others kept positions open and recovered. Overall, strategies were helped by the broad steepening in oil future curves<sup>4</sup>. The 34 constituent strategies in the database were all positive except for one congestion arbitrage algorithm (down -2.2%). We also note that a congestion arbitrage algorithm topped the list this month (+8.2% by an index sponsored by Credit Suisse, see table below), which comes to show how, within alternative beta strategies, same trade ideas can be implemented in different ways.

#### Top 3 movers (ranked by 1 month returns)

Arbitrage - Commodity Yield Optimization	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) Credit Suisse Custom 24 (commodity con Commodity Congestion Arbitrage	8.2%	0.9%	-0.1	0.9%
2) Societe Generale Roll Alpha 1 Vt8 Commodity Future Arbitrage	6.8%	12.1%	1.9	12.1%
3) Credit Suisse Custom 88 Curve Arbitrage Commodity Future Arbitrage - 10 Commodities	5.9%	2.5%	0.1	2.5%

<sup>2</sup> The AUD, NZD and CAD were down -3.6%, -2.4% and -2.5% against the USD, respectively. Source: Bloomberg

<sup>3</sup> For example, the ARS and MXN were up +4.1% and +4.0% respectively (versus the USD), while the RUB and the ZAR were down -3.6% and -3.2%. Source: Bloomberg

<sup>4</sup> The premium for Feb 20 over Feb 19 WTI oil future prices rose from +1.5% to +7.1% in the course of one month. Source: Bloomberg

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## Arbitrage Strategies (CLAXARB Index)

**+1.23% in December, -2.02% in the last 12 months**

### Fixed Income Arbitrage Strategies (CLAXFIA Index) **+0.40% in Dec, +10.75% in the last 12 months**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	1.33%	1.93%	-0.18%	1.25%	1.61%	-0.57%	-1.19%	2.38%	-1.09%	3.25%	1.79%	-1.59%	9.14%
2015	2.21%	-0.12%	1.77%	0.12%	-0.27%	-1.57%	1.33%	1.09%	1.87%	0.41%	0.03%	-1.21%	5.74%
2016	3.84%	0.88%	-0.29%	-0.34%	-0.27%	3.22%	-0.35%	-0.29%	0.03%	-1.47%	-4.19%	-1.20%	-0.67%
2017	-0.43%	1.25%	0.20%	1.70%	1.47%	-1.92%	0.14%	0.77%	-0.08%	1.19%	-0.65%	-1.33%	2.25%
2018	0.41%	0.31%	1.16%	0.27%	1.70%	1.24%	0.84%	0.53%	-1.64%	1.53%	3.58%	0.40%	10.75%

The Fixed Income Arbitrage sub-index finished the year with a small gain (+0.4%) bringing its annual performance to +10.75%, the best in our database for 2018. All long term curve carry and muni bond positions posted gains in a market where interest rates came down (see table below). 10 year swap rates fell -3bps in USD, -7bps in EUR, -13bps in GBP and -8bps in JPY; meanwhile, 2Y swap rates came off -32bps in USD, -2bs in EUR, and -1bp in both GBP and JPY. Forward rate bias strategies had mixed results as some algorithms are still short USD (March 20) Eurodollar futures, which rallied +46bps in December. Finally another source of losses were high yield bond (credit) carry positions, as prices in these securities declined<sup>5</sup>.

#### Top 3 movers (ranked by 1 month returns)

Arbitrage - Fixed Income	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) DB Diversified Municipal Arbitrage 2 US Muni Rate Curve Arbitrage	1.4%	3.0%	0.7	3.0%
2) DB FRB Muni FRB Muni Bonds	0.7%	2.0%	0.5	2.0%
3) Societe Generale FIRM Gulf Stream USD & EUR Forward Rate Bias Arbitrage	0.7%	4.3%	1.6	4.3%

### Volatility Arbitrage Strategies (CLAXVOA Index) **-0.67% in Dec, -8.26% in the last 12 months**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	-1.65%	0.93%	0.03%	0.59%	0.69%	1.08%	-0.81%	0.99%	-0.19%	-2.45%	0.83%	-1.61%	-1.63%
2015	-1.37%	2.89%	-0.90%	1.10%	0.13%	-1.24%	2.27%	-5.35%	-0.07%	1.45%	0.83%	-0.12%	-0.64%
2016	-1.80%	-0.65%	1.91%	0.08%	2.12%	-2.29%	0.74%	1.39%	0.08%	0.71%	-0.20%	1.12%	3.15%
2017	1.22%	1.61%	0.99%	1.35%	1.07%	0.25%	1.59%	0.34%	1.32%	1.31%	0.92%	0.71%	13.43%
2018	-0.87%	-7.10%	-0.76%	0.79%	-0.93%	0.51%	1.22%	0.13%	0.87%	-2.15%	0.64%	-0.67%	-8.26%

Volatility Arbitrage strategies experienced relatively moderate losses (-0.67%) in December, given the turmoil in equity markets. The VIX and VStoxx indices rose +7.4 and +5.4 points respectively (to 25.4 and 23.9), and 20-day realised volatilities surged from 19.6% to 30.1% for the S&P 500 index and from 12.3% to 20.9% for the Euro Stoxx 50 index. Equity volatility strategies lost on average -2.3%, across 37 indices. The losses were partly offset by gains made in other asset classes. Commodity indices gained +0.2% on average, as implied volatility for WTI crude oil remained stable<sup>6</sup>. The lack of volatility in EUR interest rates<sup>7</sup> helped fixed income strategies stay positive (+0.6% on average). Finally, FX volatility strategies were up +0.6%, helped by lower realised volatility in EUR/USD<sup>8</sup>.

#### Top 3 movers (ranked by 1 month returns)

Arbitrage - Volatility	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) BOA Merrill Lynch Short Synthetic Variance Short MSCI Brazil Variance Swaps	4.6%	-2.0%	-0.3	-2.0%
2) BOA Merrill Lynch Short Synthetic Variance Short MSCI EM Variance Swaps	3.6%	-11.8%	-1.1	-11.8%
3) BOA Merrill Lynch Short Synthetic Variance Short HYG ETF Variance Swaps	3.4%	14.9%	1.2	14.9%

<sup>5</sup> The Liquid High Yield Index (IBOXHY) fell -2.2% in December. Source: Bloomberg

<sup>6</sup> WTI crude oil 3-month implied volatility finished December at 48.4%, broadly unchanged. Source: Bloomberg.

<sup>7</sup> The EUR 10 year swap rate experienced a realised (normal) volatility of 27bps per annum during December, below its 1-month implied volatility (around 35bps during November). Source: Bloomberg.

<sup>8</sup> The 20-day realised volatility of the EUR/USD cross dropped from 7.9% to 6.2%. Source: Bloomberg.

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## Economic Indicator Strategies (CLAXECI Index)

**+0.03% in December, -6.25% in the last 12 months**

### Research Strategies (CLAXRES Index) -0.82% in Dec, -11.54% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	2.34%	0.11%	0.49%	-1.78%	-1.20%	1.20%	-2.73%	0.89%	-2.39%	0.27%	-1.01%	1.23%	-2.69%
2015	-1.71%	0.76%	0.69%	-1.30%	1.63%	0.08%	-2.66%	-3.20%	-1.19%	-1.04%	-0.22%	0.81%	-7.22%
2016	-3.64%	1.08%	1.80%	-1.12%	-0.79%	-4.33%	0.73%	-0.90%	2.30%	-0.11%	2.69%	1.72%	-0.83%
2017	0.08%	0.80%	0.33%	0.32%	-0.68%	0.99%	0.33%	0.67%	1.12%	1.26%	0.43%	0.33%	6.14%
2018	-1.37%	-0.51%	1.89%	-0.87%	-0.02%	-2.17%	-1.75%	-0.17%	-1.89%	-3.28%	-1.16%	-0.82%	-11.54%

The Equity Factor sub-index capped a bad year with a disappointing December, down -0.82%. The index is down -11.54% in 2018, the worst performance among its peers in our database. This month, Quality and Momentum factors were the most successful with excess returns of +1.0% and +0.5% respectively; Size and Value factors lagged with losses of -1.4% and -0.9%. Geographically, European strategies were stronger (+0.6%) than their US counterparts (-0.8%), presumably helped by less turbulent equity markets<sup>9</sup>. At benchmark levels, we saw small cap underperforming larger cap peers, with the Russell 2000 index dropping -12.1%, almost -3% worse than the S&P 500. Looking at 2018 more generally, this was an unusual year in which Momentum and Value factors ended both negative (-0.4% and -4.7% respectively). Value was the worst performer in 2018, while Low Vol came out on top (+4.0%) and Quality was second (+1.5%). The Size factor was second last, at -3.1%, and Multi-Factor algorithms were down -2.3%.

#### Top 3 movers (ranked by 1 month returns)

Economic Indicators - Research	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) DB Equity Sector Neutral Quality Factor Global Equity Long/Short Quality Factor	4.4%	7.2%	1.4	7.2%
2) Societe Generale SLS Emerging Global Equity Long/Short EM Factor	2.6%	-1.7%	-0.3	-1.7%
3) JPMorgan Equity Risk Premium Global Q Global Equity Long/Short Quality Factor	2.2%	2.3%	0.1	2.3%

### Macro Strategies (CLAXMAC Index) +1.23% in Dec, +1.28% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	-0.33%	-2.25%	-0.04%	0.16%	1.81%	0.31%	-0.60%	0.24%	0.59%	-0.16%	0.29%	-0.60%	-0.64%
2015	-0.55%	-0.49%	0.22%	-0.55%	-0.04%	-2.19%	1.72%	-0.20%	0.57%	1.10%	0.29%	0.06%	-0.10%
2016	0.80%	1.79%	-0.38%	-0.37%	-0.95%	1.08%	1.27%	-0.33%	-0.35%	-0.92%	0.45%	-0.26%	1.82%
2017	-0.00%	1.39%	0.35%	1.30%	0.44%	-0.21%	0.24%	1.49%	0.38%	0.92%	1.01%	0.56%	8.13%
2018	0.13%	-0.96%	0.93%	0.48%	-0.54%	0.49%	-0.53%	-0.82%	2.22%	-1.37%	0.08%	1.23%	1.28%

Macro strategies stayed positive for 2018 by adding +1.23% in December. As we can see from the table below, Commodity value strategies came out on top with stunning returns (+1.7% in aggregate), fuelled by falling prices in oil and wheat<sup>10</sup> (among others). The sudden inversion of the natural gas curve in November would have signalled long positions, but these appear not to have been implemented before the correction in December. Fixed Income and FX strategies were positive too (+0.3% and +0.8% respectively): the former thanks to lower interest rates, the latter helped by a JPY rally<sup>11</sup> for which value convergence strategies were correctly positioned. Equity strategies printed losses generally due to global stock market declines.

#### Top 3 movers (ranked by 1 month returns)

Economic Indicators - Macro	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) CIBC Commodity Backwardation Commodity Backwardation - BCOM Weights	6.2%	6.5%	0.8	6.5%
2) CIBC Low Volatility Alpha Commodity Long/Short Low Vol Factor	5.8%	0.4%	-0.2	0.4%
3) Credit Suisse Backwardation RV Commodity Backwardation	5.3%	6.0%	0.4	6.0%

<sup>9</sup> The Euro Stoxx 50 index was down -5.4%, the S&P 500 index was down -9.2%. Source: Bloomberg.

<sup>10</sup> WTI Crude Feb 19 futures fell -11.1%; Wheat Mar 19 futures fell -2.4%. Source: Bloomberg.

<sup>11</sup> The JPY gained +3.3% versus the USD. Source: Bloomberg.



# Monthly Report – December 2018

## Momentum Strategies (CLAXMOM Index) +0.41% in December, -4.72% in the last 12 months

### Mean Reversion Strategies (CLAXMRE Index) -1.55% in Dec, -9.35% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	0.18%	0.93%	1.38%	1.04%	0.78%	0.07%	-0.45%	-0.07%	-0.89%	-3.02%	0.21%	0.47%	0.56%
2015	0.24%	0.52%	0.75%	-0.24%	0.37%	0.06%	-0.20%	-3.32%	2.36%	0.19%	0.27%	0.56%	1.48%
2016	-1.54%	0.33%	0.08%	-0.18%	0.45%	1.56%	-0.05%	0.40%	1.01%	0.19%	-0.31%	-0.25%	1.65%
2017	0.75%	0.38%	0.84%	0.73%	0.37%	0.47%	1.18%	1.73%	0.07%	0.65%	-0.86%	1.21%	7.77%
2018	-1.42%	-6.31%	0.37%	0.81%	-0.45%	0.37%	1.37%	0.43%	-0.76%	-2.81%	0.43%	-1.55%	-9.35%

The Mean Reversion sub-index lost -1.55% in December. Algorithms were undermined by one-directional, negative daily movements in both the S&P 500 and the Euro Stoxx 50 indices<sup>12</sup>. Short-term mean reversion algorithms lost -1.6% (across ten indices) on the S&P 500 index, and -0.3% (six indices) on the Euro Stoxx 50 index. Despite these headwinds, a short term mean reversion strategy on the S&P 500 came out top of this group with a +2.5% monthly return (sponsored by Société Générale, see table below). The differentiator, as we see it, is that some algorithms risk manage exposure (reducing or capping long positions in bear markets) while others keep buying each dip. While risks are high, the only way to make back losses in these strategies is to buy more when the index falls. On a separate front, buy-write strategies posted very poor returns, averaging -3.7% across nine indices.

#### Top 3 movers (ranked by 1 month returns)

Momentum - Mean Reversion	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) Societe Generale US Gravity S&P 500 Mean Reversion (Bi-Weekly)	2.5%	-1.2%	-0.1	-1.2%
2) Credit Suisse Mean Reversion on SX5E Euro Stoxx 50 Mean Reversion	2.1%	-4.9%	-1.1	-4.9%
3) BNP Paribas Equity Extremum Reversion SPX, SX5E, CAC, DAX, SMI and UKX Mean Reversion	2.0%	4.3%	0.4	4.3%

### Trend-Following Strategies (CLAXTRF Index) +1.25% in Dec, -2.90% in the last 12 months

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
2014	-1.29%	-0.20%	-0.60%	0.49%	0.99%	0.82%	-1.30%	0.91%	0.35%	-0.39%	2.01%	0.91%	2.66%
2015	1.82%	-0.36%	0.33%	-0.62%	-0.00%	-2.08%	0.73%	-1.01%	0.60%	-0.32%	0.82%	-1.36%	-1.51%
2016	0.68%	1.01%	-1.21%	0.24%	-0.22%	1.75%	-0.05%	-1.33%	0.59%	-0.27%	0.13%	0.04%	1.32%
2017	-0.22%	1.54%	-0.68%	0.33%	0.26%	-1.28%	0.28%	0.58%	-1.13%	1.39%	-0.17%	0.83%	1.70%
2018	2.51%	-2.55%	-0.13%	-0.27%	0.01%	-0.10%	-0.42%	0.51%	-0.52%	-3.05%	-0.06%	1.25%	-2.90%

The Trend following sub-index made respectable gains of +1.25% in December and finished the year down -2.9%, broadly in line with other trend following benchmarks<sup>13</sup>. Commodity (+0.6%), FX (+0.5%), Fixed Income (+1.0%) and Equity strategies (+3.2%) all made gains. Commodity positions were positive as a majority of strategies have switched positions to short oil and energy prices<sup>14</sup>. FX strategies gained on G10 pairs, especially AUD, CAD and JPY<sup>15</sup>. Fixed income trend following strategies were helped by falling interest rates and rising government bond prices<sup>16</sup>. Equity algorithm returns were lifted by a VIX trend following algorithm (from Barclays, see table below) which held a long position in VIX futures (the Jan 19 contract was up +33%).

#### Top 3 movers (ranked by 1 month returns)

Momentum - Trend Following	Dec-18 return	YTD return	1Y Sharpe	1Y return
1) Barclays Cross Asset Trend Index VIX VIX Index Trend Following	15.3%	-32.0%	-0.7	-32.0%
2) JPMorgan WTI Crude Continuum Crude Oil Momentum Strategy	9.5%	-7.0%	-0.4	-7.0%
3) Credit Suisse Managed Futures Multi-Asset Trend Following - Long/Short	6.0%	-4.4%	-0.5	-4.4%

<sup>12</sup> The S&P 500 index had 11 negative daily returns in the 14 trading day period from December 3<sup>rd</sup> to 24<sup>th</sup>. The aggregate loss (including positive days) was -15.7%. Source: Bloomberg

<sup>13</sup> The SG CTA index (NEIXCTA) was down -5.8% in 2018, the Credit Suisse Managed Futures index (CSLABMF) was down -4.4%. Source: Bloomberg

<sup>14</sup> The BCOM Energy sub-index was down -5.7% in October and -3.5% in November, before dropping -18.9% in December. Source: Bloomberg,

<sup>15</sup> The AUD was down -6.4% year to date against the USD in November, then fell -3.6% in December. Source: Bloomberg

<sup>16</sup> Bunds (0.25% Aug 2028) were up +0.9% in October, +0.7% in November, and +0.7% in December. Source: Bloomberg