

# Rcube Asset Management

## SWARM

### STRATEGY DESCRIPTION

Rcube SWARM is a systematic, managed futures program utilising biomimicry; taking inspiration from the natural world to solve modern day problems. In this case, the inspiration is how small creatures (insects) that have limited problem solving capacities as individuals combine in colonies to generate Swarm Intelligence. Colonies exhibit significantly more complex intelligent behaviour and can solve problems orders of magnitude more difficult than the individual agents forming the swarm. The problem we are trying to solve is how to make trading decisions in a portfolio structure.

Rcube SWARM comprises of 16 simple, medium-term trend following systems (the agents). These are applied across 16 liquid futures markets covering the 4 main sectors; currencies, stock indices, interest rates and commodities. Each system (agent) has an underlying view, calculated using a proprietary indicator that measures medium-term trend direction and strength. The only input is the daily price at the time of execution.

The 16 systems share information on four parameters of their respective markets; their momentum, position, volatility and performance. The information is 'shared' by creating a Swarm Matrix, combining all the possible combinations of the 16 agents; all the twos, threes, fours etc. That generates 65,535 data points from the original 16, for each of the four parameters. The Swarm Matrix forms a 3-dimensional surface; on which there are contour lines carving out areas where certain performance characteristics have emerged in the past. Using this information, each system (agent) modulates its underlying view. The multiplier can be x3.0, x1.0, x0.5, x0.0, x-0.5, x-1.0 or x-3.0.

Like an ant in a colony, a system shares information with surrounding agents, and then uses that information to modulate its own behaviour. Each system therefore takes on positions that are not just dependant on its own parameters, but on the activity of the whole portfolio (colony). Changes in the Gold, Bund and Yen systems, for example, may cause the S&P system to increase, close or even reverse its own position.

The Rcube SWARM program only samples one parameter per market (current price) once a day, and only trades once a day (per market). Not all systems have positions, and not all systems trade each day.

There are four levels of Risk Management: internal (adjusts unit position size), dashboard (tracks program output over various parameters and time frames), discretionary (risk reduction in extreme cases) and hard stops (agreed with clients).

The Rcube SWARM program targets a net return of 17% with a volatility of 15%. As a result of the 'different approach' to making trading decisions, it is not correlated to trend followers or any particular sector.

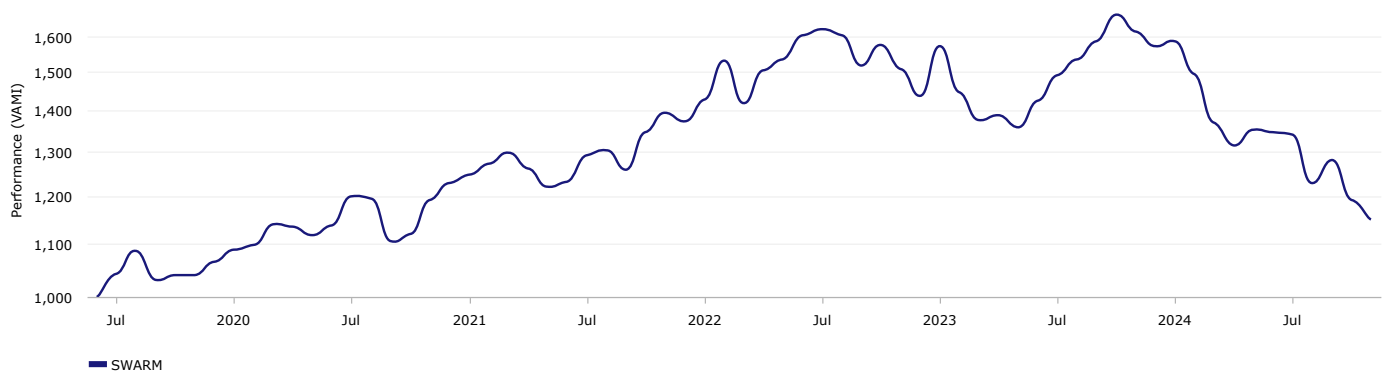
Rcube Asset management has integrated the Rcube SWARM Program since April 2022

### MONTHLY PERFORMANCE

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
<b>2024</b>	1.01	-5.87	-8.36	-3.95	2.93	-0.62	-0.35	-8.37	4.17	-6.85	-3.53		<b>-26.82</b>
<b>2023</b>	9.25	-7.86	-4.92	0.85	-2.11	4.76	4.81	2.86	3.28	4.95	-3.07	-2.57	<b>9.24</b>
<b>2022</b>	4.12	7.19	-7.45	6.04	2.14	4.37	1.16	-1.07	-5.34	3.76	-4.23	-4.68	<b>4.78</b>
<b>2021</b>	1.48	2.06	2.04	-2.83	-3.31	1.02	4.87	0.88	-3.40	6.93	3.51	-1.52	<b>11.74</b>
<b>2020</b>	2.04	0.93	3.76	-0.41	-1.43	1.74	5.31	-0.40	-7.40	1.26	6.42	3.11	<b>15.17</b>
<b>2019</b>							4.18	4.40	-5.29	0.92	0.06	2.49	<b>6.63</b>

Past performance is not indicative of future results. There is a substantial risk of loss in trading commodity futures, options and off-exchange foreign currency products. Performance Table is valued in USD. YTD & LTD performance is compounded. Trading P&L, Commissions, Change in OTE & Interest are actual from broker statement. Management (1.00%) & Incentive Fees (15%) are proforma. July 2019 to Apr 2022 figures are based on non Rcube accounts. May 2022 figures to current are Rcube accounts only

## PERFORMANCE (VAMI)



## GENERAL INFORMATION

Minimum Investment	4,000,000 USD
Management Fee	1.00%
Performance Fee	15.00%
Highwater Mark	Yes
Margin to Equity	25.00%
Legal Structure	Managed Account
Investment Restriction	Only for Qualified Eligible Persons

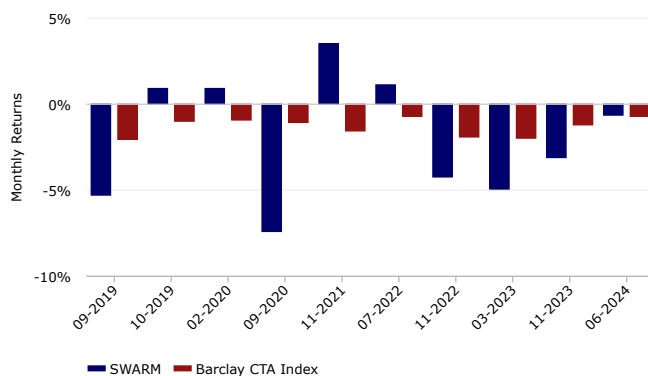
## RISK STATISTICS

	Portfolio	Barclay CTA Index
Total Return Annualized	2.60%	4.03%
Standard Deviation Annualized	14.78%	3.94%
12 Months ROR	-28.71%	4.16%
Sharpe Ratio	0.25	1.02
Calmar Ratio	-0.20	0.95
Sortino Ratio	0.24	1.98
Max Drawdown (Monthly)	-30.90%	-3.93%
Correlation vs. Barclay CTA Index	0.14	-
Correlation vs. MSCI World	0.02	-
Winning Months (%)	58.46%	63.08%

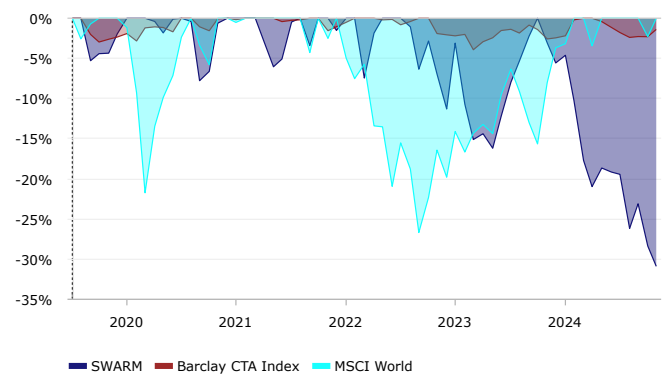
## CORRELATIONS

Correlation vs S&P 500	0.02
Correlation vs DJ/CS MF Index	0.12
Correlation vs SG CTA Index	0.12
Correlation vs DJ/CS HF Index	0.03
Correlation vs Vanguard Total Bond Index	0.09
Correlation TRJ/CRB Index	0.00
Correlation Vs MSCIWorld	0.02
corr_XJO	-

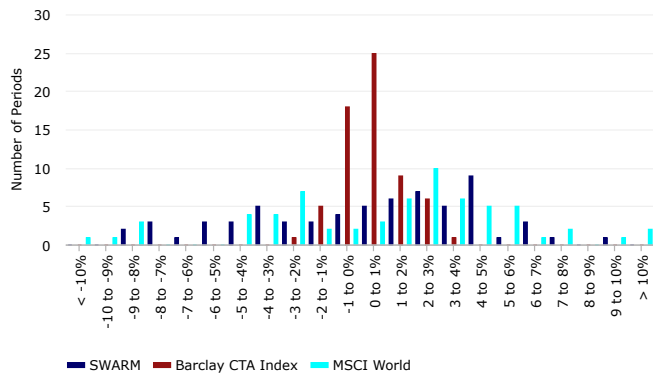
## DOWN CAPTURE VS. BARCLAY CTA INDEX



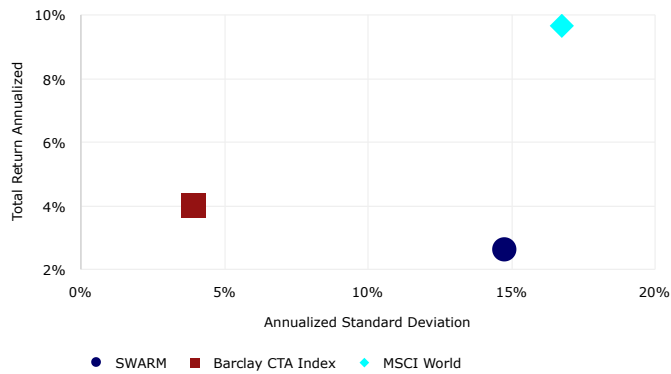
## DRAWDOWN



## DISTRIBUTION OF MONTHLY RETURNS



## RISK/RETURN COMPARISON



## RETURN REPORT

Period	Best	Worst	Average	Median	Last	Winning %
1 Month	9.25%	-8.37%	0.31%	1.01%	-3.53%	58.46%
3 Months	13.05%	-17.15%	0.93%	1.94%	-6.39%	55.56%
6 Months	19.84%	-20.97%	2.42%	4.75%	-15.05%	63.33%
1 Year	30.09%	-28.71%	6.02%	8.63%	-28.71%	70.37%
2 Years	40.81%	-24.36%	15.10%	18.78%	-23.80%	76.19%
3 Years	60.25%	-17.51%	25.37%	26.19%	-17.51%	90.00%
5 Years	34.47%	10.49%	20.87%	19.38%	10.49%	100.00%

## TEAM BIO

### Portfolio Manager : Cyril Castelli

Prior to founding Rcube Asset Management in 2013, Cyril launched a global macro research boutique (Rcube) in 2011 where he advised some of the largest global macro hedge funds globally on tactical asset allocation. Prior to that he was head of Macro research & sales at Louis Capital Markets in London. Before that Cyril was head of macro trading and asset allocation at ADI (Alternative & Derivative Investments) a large french hedge fund group (€8 bln AUM). Between 1994 and 2000 Cyril held various senior positions at AIG Trading and Finacor Vendôme (Chicago, New York & London). Cyril holds an MBA from Institut Supérieur de Gestion (1994)

### Program Designer : Pantelis Yiannakou

Pantelis graduated with a BSc in Physics with Laser Technology and went on to work in senior trading functions for several London institutions including Natwest, GZV and Banco Santander. After setting up his own systematic managed futures fund in 1997, his company became part of the Man Group associated manager program. As a principal of Man-Vector, Pantelis managed over \$450mln in various Man-AHL products. In 2018 he set up Swarm Technology, a systematic futures program inspired by Swarm Intelligence. He completed the Artificial Intelligence course at University of Oxford in 2020.

## DISCLAIMER

PAST PERFORMANCE IS NOT NECESSARILY INDICATIVE OF FUTURE RESULTS. There is a substantial risk of loss in trading commodity futures and options.

The indices selected to generate the above comparison are not available as a directly investible product. Generally, no individual can purchase an actual index as an investment holding for his or her portfolio. Please consider that any index performance is for the constituents of that index only and does not represent the entire universe of possible investments within that asset class. Limitations and biases to indices include survivorship, self reporting, instant history, etc.

The Barclay CTA Index is a leading industry benchmark of representative performance of commodity trading advisors. There are currently 416 programs included in the calculation of the Barclay CTA Index for 2021. The Index is equally weighted and rebalanced at the beginning of each year. Source : Bloomberg BARCCTA Index

The MSCI World Index captures large and mid-cap representation across 23 Developed Markets countries which include: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Hong Kong, Ireland, Israel, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Singapore, Spain, Sweden, Switzerland, the UK and the US. With 1,479 constituents, the index covers approximately 85% of the free float-adjusted market capitalization in each country. The MSCI World Index was launched on Mar 31, 1986. MSCI makes no express or implied warranties or representations and shall have no liability whatsoever with respect to any data contained herein. The MSCI data may not be further redistributed or used as a basis for other indices or any securities or financial products. This report is not approved, endorsed, reviewed or produced by MSCI. None of the MSCI data are intended to constitute investment advice or a recommendation to make (or refrain from making) any kind of investment decision and may not be relied on as such.

Ticker Bloomberg: MXWO

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