Lethame Capital Management
Technology : Research : Investing

Program Update – Q2 2023

	Annualised Return*	Standard Deviation	Sharpe Ratio	Maximum Drawdown	Average Correlation
Lethame Capital Management	8.9%	13.6%	0.60	15.8%	-
S&P 500 Index	8.0%	22.2%	0.32	42.6%	1.2%
60/40 portfolio	4.0%	13.2%	0.24	23.5%	2.2%

*Returns since inception

This commentary refers to the performance of the strategy of the personal investment vehicle of Piers D. Watson, please see disclaimer.

*System running from 1st July 2019. All calculations based on daily futures data. Program Sharpe Ratio calculated using RBA 3m OIS, comparison indices use USD 3m SOFR.

"...there were many economists ready to assure American investors that this spell of exponential growth was really different, that the old rules do not apply in the New Economy where endless rapid growth will readily continue..." – Vaclav Smil[1]

Lethame Capital Management Systematic Global Macro
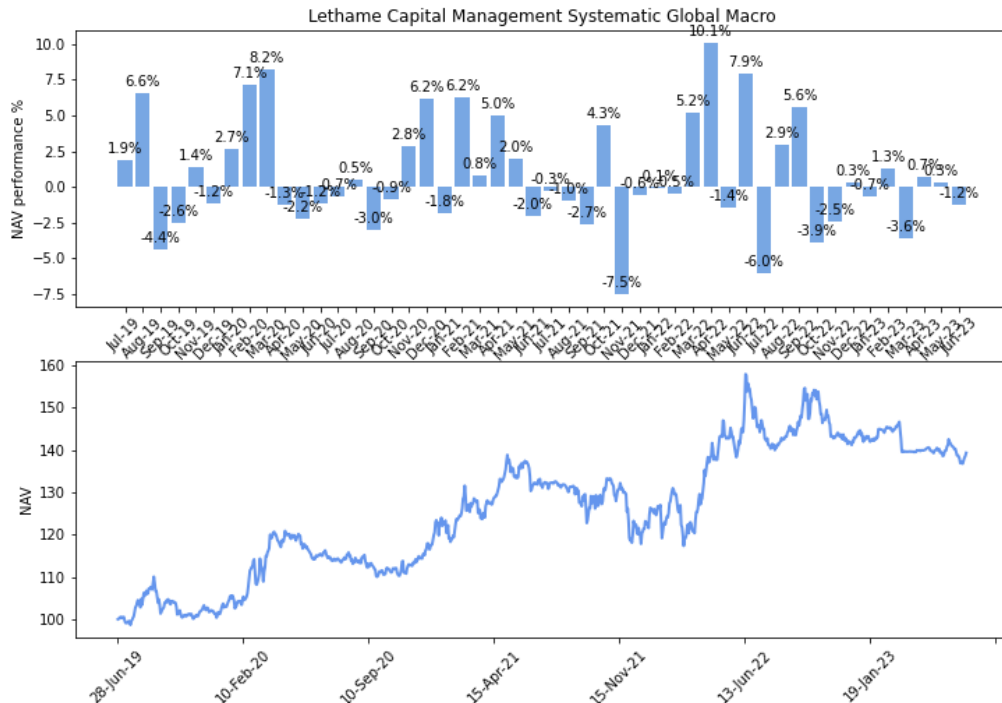
Performance Review 2Q 2023

Lethame Capital Management's (LCM) Systematic Global Macro Program produced a return of -0.3% in the Second Quarter of 2023, bringing the year-to-date return to -3.2%. Throughout this period, LCM

Lethame Capital Management
Technology : Research : Investing

navigated a market landscape characterized by a limited number of significant movements in the assets it trades.

Through extensive research spanning numerous decades, LCM has studied countless trends, remaining acutely aware of prolonged periods of subdued market activity preceding the resurgence of these trends. The intricacies of human psychology reveal a strong inclination towards the allure of consistent and predictable returns. This very notion is emphasized by AQR's Cliff Asness, who highlights investors yearning for the illusory "*attractive smoothness of returns*" typically associated with Private Equity[2]. Regrettably, such a form of risk asset return series remains elusive in the real world, or if it does exist, it ultimately exposes investors to a negatively skewed return distribution that they ultimately come to regret.

In the second quarter in particular only four assets in its universe exhibited 'large' risk-adjusted returns with Live Cattle emerging as the standout performer (+5.6 standard deviations (s.d.)), followed by corn (-3.5 s.d.), the S&P 500 (+1.8 s.d.), and finally the Mexican Peso (+1.6 s.d.).

Live Cattle
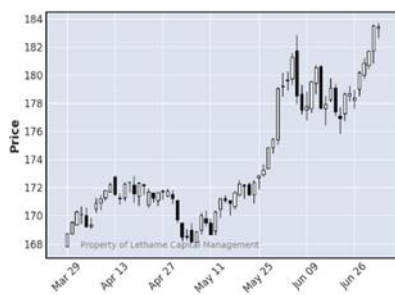
Unfortunately, corn as a member of the grains and oil seeds segment of agricultural commodities, delivered a rather disappointing performance for the strategy. Despite initially securing considerable gains from a short position in the contract, a five-day rally of over 25% in corn led to a stop-out of the position. Subsequently, the market retraced the move within the following five days, ultimately returning the contract to its starting point meaning

a round trip over the last 10 trading days of the month.

Short Squeeze in grains and oil seeds
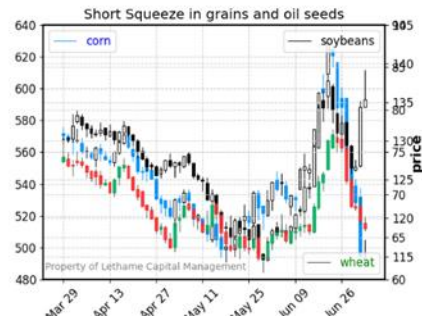
This price action in corn, wheat, and soybean futures unfolded against the backdrop of a deteriorating drought situation in the US mid-west, implying a rapid decline in crop conditions. The US Department of Agriculture (USDA) reported that the corn crop's "good to excellent" rating plummeted to 55% in June, its lowest level since 1992. However, a break in the weather patterns and indications from the USDA revealing higher-than-expected corn plantings triggered a sharp reversal in prices.

While these market dynamics present challenges for generating performance, LCM's system is purposefully designed to withstand such moves, enabling it to adapt and capitalize on opportunities while effectively managing risk.

> *Erratum: we have discovered a mistake in the calculation of strategy drawdown in previous commentaries. The maximum drawdown since inception is 15.8% not the 19% previous reported.*

Ebullient Equity Markets

While the media tends to emphasize equity market returns, it is crucial to recognize that LCM provides diversified exposure to a wide range of asset classes (see Asset Allocation section), with dynamic risk management serving as a central pillar of the program. The headline numbers for U.S. equities in both the quarter and the year offer equity investors much to celebrate following the disappointment of 2022. Notably, the S&P 500 future recorded a remarkable 7.3% return in the quarter. However, it

is important to delve below the surface to understand the underlying drivers of this return.

Hidden within this figure lies the fact that the lion's share of the return was attributable to a handful of stocks associated with the potentially transformative advances in Artificial Intelligence. Consequently, meme stocks aligned with this thematic witnessed stellar returns. Notably, Nvidia emerged as a prominent player, exemplifying the possibilities of this domain. Its valuation has surged from 15 times revenues to 40 times revenues thus far in the year. While there exists potential for further growth, historical evidence cautions against investing in companies at such sky-high multiples, as disappointment has often followed. Nevertheless, the allure of AI's potential continues to captivate the market.

From a technology perspective, LCM shares in the excitement surrounding these new frontiers and has dedicated substantial resources to developing and incorporating machine learning capabilities, into its investment strategy (see Asset Allocation section). The architectural similarities between the strategy and cutting-edge technologies such as neural networks are explored in detail in an article on the LCM website titled 'why investors should like modern trend following' However, the realization of the lofty valuations currently attached to these stocks remains an open question.

Amidst the evaluation of the strategy's performance within this narrow time frame, one must remain vigilant against a potentially defensive interpretation. It is essential to acknowledge that these observations can overshadow the true potential of the strategy. While equities are not a benchmark LCM pays significant attention to it is notable that in 2022, it delivered extraordinary results, surpassing the performance of equities by more than 40%.

One of the features that sets the strategy apart from traditional investments is its inherent valuation agnosticism. Most risk asset investments rely heavily on starting valuations as a determinant of future returns, by design LCM's return profile is independent starting valuation. This is an important consideration when observing that in addition to the Nvidia valuation already highlighted, the so called "MegaCap-8" which includes Nvidia and has been instrumental in the S&P500's success this year, trade at a forward price-to-earnings (PE) multiple of 31x. In comparison, the broader S&P 500 index, excluding the "MegaCap-8" stocks, maintains a more conservative multiple of 16.5x.

By recognizing these distinctions, and backed by both proprietary and academic research LCM maintains confidence in the resilience and potential of the strategy. LCM firmly believes that evaluating its performance should extend beyond short-term fluctuations as with all investment strategies a long-term perspective is warranted.

Asset Allocation

Optimizing portfolio asset allocation through the standard mean variance optimization method necessitates accurate estimates of asset means, variances, and correlations. However, even slight variations in these estimates can result in highly unstable and often extreme weightings. To overcome this inherent vulnerability, LCM employs a sophisticated modification of the Hierarchical Risk Parity[3] (HRP) technique to determine the optimal asset allocation for the strategy.

Target Asset Allocation Q2 2023
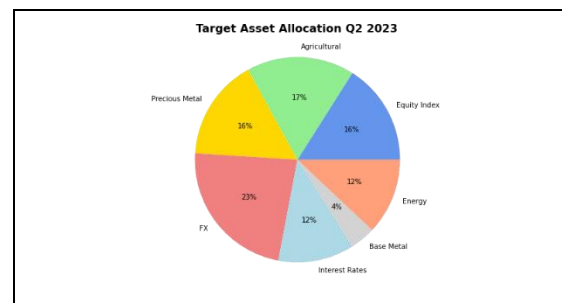
Unlike traditional optimization methods that rely on inverting the covariance matrix, LCM's enhanced approach using HRP ensures significantly greater stability. By harnessing the power of standard hierarchical clustering algorithms, HRP constructs a

Lethame Capital Management
Technology : Research : Investing

hierarchical tree that captures the underlying relationships among the assets. Consequently, the technique facilitates diversification across the identified clusters. Importantly, this allocation methodology remained unchanged at the end of the second quarter, underscoring the robustness and reliability of the investment strategy.

[1] Smil. V., *'Growth : From MicroOrganisms to Megacities'*. MIT Press, 24 Sep 2019.

[2] Assness, C,. *'The Illiquidity Discount'*. https://www.aqr.com/Insights/Perspectives/The-Illiquidity-Discount.

[3] López de Prado, M., *'Building Diversified Portfolios that Outperform Out-of-Sample'*. Journal of Portfolio Management, 23 May 2016.

Lethame Capital Management

Lethame Capital Management (LCM) is a private company established to manage capital using proprietary software and algorithms developed by Principal, Piers D. Watson, CFA FRM CQF CFTe. LCM's investment program utilises over thirty years of experience as a portfolio and risk manager covering multiple asset classes and follows years of research, analysis and technology development. The program is designed to provide a comprehensive and systematic exposure to a diversified range of return streams.

Program design has been borne out by the performance of the system since inception and is backed by comprehensive back-testing over the past 40 years (see the performance table below).

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
1994									4.38%	-0.09%	5.94%	-6.26%	9.87%
1995	1.47%	0.18%	-4.46%	7.59%	8.84%	1.37%	0.26%	-2.99%	4.38%	5.77%	5.85%	3.01%	33.73%
1996	-2.38%	-3.02%	2.66%	4.69%	1.38%	7.76%	-10.11%	3.32%	5.09%	4.65%	19.51%	-4.81%	30.22%
1997	6.92%	-5.03%	-1.84%	-0.37%	4.25%	1.79%	11.07%	-6.62%	2.93%	2.25%	-1.56%	1.28%	32.68%
1998	0.48%	2.10%	3.31%	-4.54%	7.34%	-0.03%	10.28%	8.94%	-6.51%	-1.29%	6.98%	8.54%	35.68%
1999	1.04%	-5.52%	1.01%	1.67%	-0.68%	2.02%	-3.13%	1.09%	-0.16%	-4.88%	2.83%	13.81%	6.34%
2000	-2.70%	-2.35%	-2.78%	-0.51%	2.71%	-3.55%	0.41%	6.80%	-3.01%	-4.91%	15.12%	12.07%	49.69%
2001	-1.50%	13.16%	14.36%	-12.11%	3.77%	-1.29%	-0.05%	14.05%	17.24%	1.24%	-6.35%	-3.13%	38.00%
2002	-1.13%	2.05%	-7.02%	5.24%	2.98%	10.14%	10.84%	2.09%	10.78%	-5.74%	-3.67%	13.08%	39.79%
2003	7.62%	11.88%	-8.22%	0.38%	9.08%	-2.19%	-4.35%	1.10%	6.28%	-0.20%	3.61%	8.13%	23.45%
2004	4.99%	16.29%	4.23%	-13.36%	0.65%	-2.01%	-5.83%	4.21%	0.61%	6.61%	5.48%	4.99%	29.49%
2005	-4.69%	-6.47%	-3.42%	2.42%	4.79%	-1.13%	-2.72%	1.86%	-0.90%	-4.27%	5.10%	-4.50%	4.83%
2006	-1.16%	-2.69%	6.65%	3.45%	-3.20%	-2.59%	-7.07%	1.09%	5.59%	3.55%	2.13%	4.36%	6.22%
2007	-0.95%	-4.37%	-4.50%	5.95%	5.96%	-3.66%	-2.00%	-3.45%	1.43%	3.46%	4.14%	-0.37%	20.84%
2008	12.77%	8.20%	4.03%	-7.42%	0.50%	14.44%	-7.40%	-2.01%	9.80%	17.15%	12.62%	4.98%	63.44%
2009	3.66%	5.34%	-4.96%	-3.68%	-5.86%	-1.91%	1.73%	6.58%	5.56%	-1.04%	17.19%	-9.87%	-15.30%
2010	3.62%	3.93%	11.47%	4.77%	-3.30%	3.53%	-6.20%	4.78%	-1.66%	6.58%	-5.25%	7.34%	15.37%
2011	3.42%	4.16%	-5.87%	9.11%	-2.78%	-8.20%	6.82%	11.66%	-3.50%	-6.10%	1.26%	3.96%	-10.67%
2012	5.62%	2.15%	1.57%	2.69%	5.85%	-10.97%	11.00%	-1.44%	-2.13%	-4.41%	-0.99%	-2.87%	-6.17%
2013	-2.67%	-0.37%	1.86%	8.49%	-10.51%	-9.74%	4.74%	-4.81%	3.41%	5.83%	2.26%	-9.51%	1.08%
2014	-1.00%	2.54%	-7.23%	2.90%	15.93%	10.88%	-5.72%	4.19%	6.29%	6.10%	10.18%	-1.57%	31.39%
2015	10.50%	4.36%	6.69%	-3.54%	3.94%	-11.17%	4.21%	-8.74%	10.62%	0.20%	10.02%	-8.31%	19.47%
2016	8.73%	8.12%	-5.94%	-2.86%	-3.21%	-0.37%	2.84%	-3.73%	-4.89%	-5.98%	2.31%	9.53%	-11.08%
2017	-2.67%	16.23%	0.44%	5.46%	3.30%	-11.18%	2.94%	2.17%	0.86%	15.73%	-0.72%	-0.79%	3.36%
2018	17.86%	-11.64%	-3.92%	-0.29%	-0.91%	1.58%	2.96%	2.65%	-2.57%	-2.47%	-2.83%	4.08%	12.21%
2019	-4.38%	9.14%	1.48%	5.40%	-2.16%	0.74%	1.88%	6.59%	-4.40%	-2.55%	1.36%	-1.20%	11.44%
2020	2.67%	7.11%	8.20%	-1.26%	-2.22%	-1.18%	-0.70%	0.47%	-3.00%	-0.86%	2.85%	6.20%	18.97%
2021	-1.83%	6.22%	0.80%	5.01%	1.97%	-2.00%	-0.29%	-0.98%	-2.84%	4.18%	-7.50%	-0.62%	1.31%
2022	-0.08%	-0.52%	5.17%	10.07%	-1.40%	7.90%	-6.02%	2.94%	5.62%	-3.90%	-2.48%	0.33%	17.61%
2023	-0.68%	1.30%	-3.60%	0.71%	0.30%	-1.20%							-3.21%

Simulated
Real Time