

THEAM QUANT – MULTI ASSET
ARTIFICIAL INTELLIGENCEtheam QUANT
FUNDS

LIQUID ALTERNATIVES

MARKETING COMMUNICATION | FOR PROFESSIONAL CLIENTS ONLY | JULY 2023

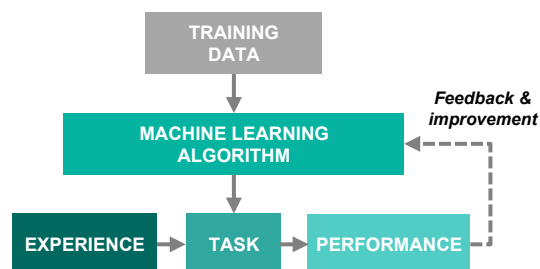
OBJECTIVE

- The Fund seeks to increase the value of its assets over the medium term, by being exposed to a diversified long/short portfolio across different asset classes (equities, fixed income and commodities), allocation of which is determined using a systematic method based on artificial intelligence. The exposure to the portfolio is adapted in order to keep the Sub-fund annual volatility at a target level of 8%.

KEY POINTS

- Use of an Artificial Intelligence algorithm (neural networks) for an improved allocation of existing robust Quantitative Investment Strategies developed by BNP Paribas: trend following and mean reversion across asset classes.
 - This allows to include indicators that go beyond the standard trend ones and thus improve the risk/return profile by aiming to capture reversal as well.
 - The algorithm considers many parameters such as observation periods for trends (1-month to 1-year) and mean reversion (1-week to 1-month) - which allows to better fit optimal frequency for each component while avoiding overfitting issues.
 - Machine learning techniques allow to solve non-linear optimisation across this enriched set of 378 indicators and hence to go one step further in the enhancement of the allocation process.
- A dynamic daily allocation, parameters of which are entirely reviewed on a yearly basis, to ensure reactivity to changing market conditions. It results from the collaboration between BNP Paribas Asset Management MAQS department and BNP Paribas Quantitative Investment Strategies.

STRATEGY



A computer program is said to learn from an experience with respect to some task and some performance measure, if its performance on the task improves with experience.

Tom Mitchell, Carnegie Mellon University.

The Artificial Intelligence uses past financial markets data to train a machine learning algorithm to generate performance during different market conditions from 1996 to 2005 to calibrate the model. The calibration is then made on a periodic basis with prior analysis of BNP Paribas teams. During the calibration, models with 25 to 3000 neurons have been tested. The final model is a combination of the top 5 models, selected on their performance and robustness. To adjust the Final model, the parameters of each of the 5 models are recalibrated based on the full period from 1996 up to the latest end of year.



I. A broadly diversified investment universe

- Allocation across equities, commodities and government bonds futures, asset classes with data available since 1995 to train the neural network
- Liquid strategy 100% invested in futures



II. Allocation based on a machine learning algorithm, identifying the investment style that seems the most profitable at this point of time for each component:

- Trend following**, based on the idea that assets which have performed well continue to perform well; assets that have performed poorly continue to perform poorly.
- Mean Reversion**, which is based on the idea that prices and returns eventually move back toward the mean or average.



III. Rigorous risk control

- The strategy embeds a risk control mechanism which aims to maintain the annualized volatility around 8%, uses a leverage/deleverage mechanism, the maximum leverage is set at 150%.
- The sum of all assets must range between -300% and 300% (through leverage)
- There is also a FX hedging mechanism to protect against currency risk

FUTURES UNIVERSE

Equity Europe

Equity US

Equity Japan

Equity China

Equity Emerging Markets

Government Bonds Germany

Government Bonds Japan

Government Bonds US

Commodities

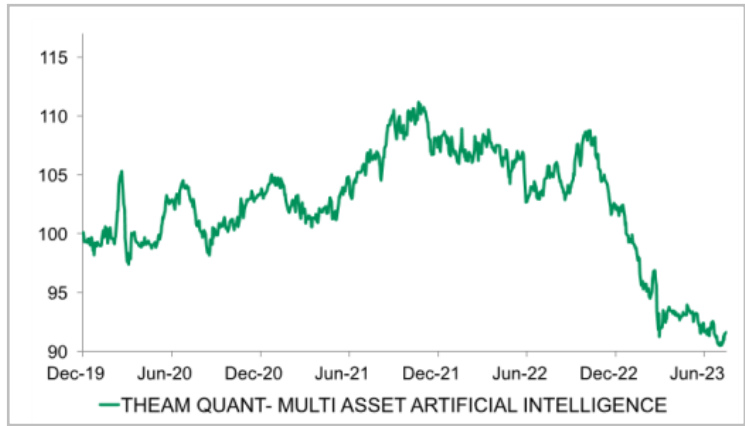
THEAM Quant – Multi Asset Artificial Intelligence

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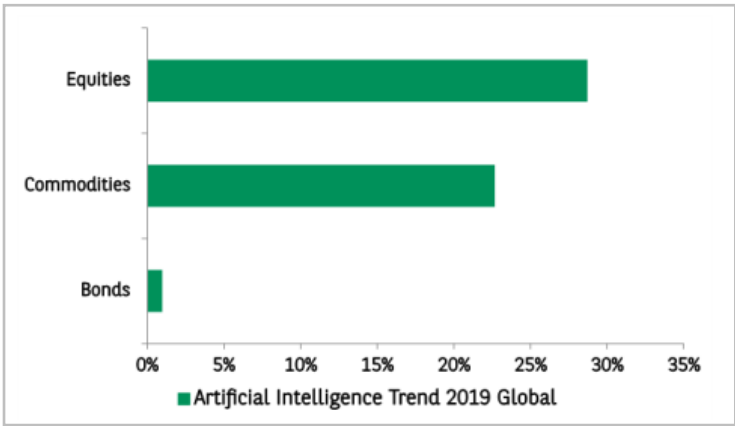
PERFORMANCE ANALYSIS

As of July 31st, 2023

Historical Performance (net of fees, Share I - EUR)



Allocations of the Strategy



Performance and Risk Statistics (net of fees, Share I - EUR)

					1M	3M	1Y	3Y p.a.	5Y p.a.	Global p.a.	Volatility p. a.		Max. Drawdown	
THEAM QUANT- MULTI ASSET ARTIFICIAL INTELLIGENCE					Return	-0.84%	-1.43%	-13.36%	-3.71%	-	-2.38%	Risk	7.50%	-18.60%
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD	
2023	-4.31%	-3.01%	-1.81%	-0.42%	0.22%	-0.81%	-0.84%						-10.55%	
2022	-0.79%	-0.35%	0.95%	-1.52%	-0.15%	-2.52%	2.05%	-2.21%	3.59%	0.89%	-4.09%	-1.18%	-5.45%	
2021	0.14%	-1.05%	-2.52%	1.15%	1.58%	1.37%	1.65%	1.39%	0.66%	0.56%	-2.13%	1.29%	4.06%	
2020	1.58%	3.58%	-3.90%	-0.97%	2.10%	1.87%	-0.47%	-4.20%	2.56%	-0.28%	2.57%	0.92%	5.13%	
2019												-0.97%	-0.97%	

Source: Bloomberg, BNP Paribas. Historical performance of TMAIIEA LX Equity, Share I (EUR) Acc since 16 December 2019. Fund's performances is expressed net of management fees and in EUR. Past and present performance is not a reliable indicator of future results. This is for general information only and should not be used as a basis for making any specific investment, business or commercial decisions. Any economic and market trend, prediction, projection or forecast is not necessarily indicative of the future or likely performance of the funds.

FUND CHARACTERISTICS

Fund	THEAM QUANT- MULTI ASSET ARTIFICIAL INTELLIGENCE	Capital protection	No
Management Company	BNP PARIBAS ASSET MANAGEMENT France	Minimum Investment horizon	4
Comparative Index	No benchmark	Legal form	SICAV
Assets under Management	EUR 15.76 million as of 31 July 2023	SRI Ranking (scale from 1 to 7)*	3
SFDR article	6 – Sustainability Risks : This products integrates the analysis of sustainability risks in its investment process pursuant to article 6 of the EU regulation 2019/2088.		
Share	I ACC EUR		
Launch date	16 December 2019		
ISIN code	LU2051087422		
Bloomberg code	TMAIIEA LX		
Ongoing charges	0.76%		
Subscription / Exit fees	None / None		
Minimum subscription	100K €		
Passporting	Austria, Switzerland, Germany, France, United Kingdom, Italy, Luxembourg		

Source: BNP Paribas. The value of investments and the income they generate may go down as well as up and it is possible that investors will not recover their initial outlay, the fund described being in risk of capital loss. Following the new Sustainable Finance Disclosure Regulation (SFDR) that came into force on the 10th of March 2021, financial entities such as BNP Paribas Asset Management who sell products into the EU are required to classify the products they manufacture or advise into three categories: products with sustainable investment objective (Article 9); products promoting environmental or social characteristics (Article 8); products neither Article 8 or Article 9 (Article 6). *The summary risk indicator is determined on a scale from 1 to 7 (7 being the highest risk level). It is subject to a periodical computation and can consequently change over time. We invite you to consult regularly the KID.

Funds' main common risks

- The following list of risk factors associated with the funds is not exhaustive. The risk factors that should be considered in connection with any investment include (but are not limited to) the following:
- An investment in the funds may involve a significant degree of risk. Investment in the funds is only suitable for those persons who are able to bear the economic risk of the investment, understand the degree of risk involved, believe that the investment is suitable based upon their investment objectives and financial needs, and have specific needs for liquidity of investment. There can be no assurance that the funds' objectives will be achieved or that there will be any return of capital.

Economic conditions

- The success of any investment activity is affected by general economic conditions, which may affect the level and volatility of interest rates and the extent and timing of investor participation in the equity markets. Unexpected volatility or illiquidity in the markets in which the funds hold positions could impair the funds' ability to carry out their business or cause them to incur losses. None of these conditions is within the control of the funds or its management company and/or investment manager and no assurances can be given that the funds or its management company and/or investment manager will anticipate these developments.

The funds will possess inherent risks

- These include, among other things, credit, liquidity, volatility, currency and interest rate risk, the financial condition of the underlying obligors, general economic conditions, market price volatility, the condition of certain financial markets, political events and developments or trends in any particular industry.

Currency exchange risk

- The value of an investment may be affected by fluctuations in the currency of the country in which the investment was made, or exchange control regulations.

Interest rate risk

- The value of an investment may be affected by interest rate fluctuations. Interest rates may be influenced by several elements or events, such as monetary policy, the discount rate, inflation, etc.

Derivatives risk

- The use of derivatives by the funds includes various risks. Those risks are (without limitation), the lack of secondary market liquidity under circumstances, valuations risks, the lack of standardization and regulation, the risk of leverage, the risk of counterparty.

Liquidity risk

- There is a risk that investments made in funds may become illiquid due to an over-restricted market (often reflected by a very broad bid-ask spread or by substantial price movements), or if their "rating" declines or their economic situation deteriorates.

Credit risk

- This is the risk that may derive from the rating downgrade of a bond issuer to which the funds are exposed, which may therefore cause the value of the investments to go down. Funds investing in high-yield bonds present a higher than average risk due to the greater fluctuation of their currency or the quality of the issuer.

Risk linked to equity markets

- The risks associated with investments in equities (and similar instruments) include significant fluctuations in prices, negative information about the issuer or market and the subordination of a company's equities to its bonds. The value of investments and the income they generate may go down as well as up and it is possible that investors will not recover their initial outlay.

Counterparty risk

- This risk relates to the quality of the counterparty with whom the funds do business or enter into various transactions. This risk reflects the counterparty's ability to honor its commitments (payment, delivery, repayment, etc.)

The investments in the funds are subject to market fluctuations and the risks inherent in investments in securities. The value of investments and the income they generate may go down as well as up and it is possible that investors will not recover their initial outlay. Investors are warned that the capital invested may not be fully recovered, mutual funds described in this document being in risk of capital loss and risk of counterparty. Past performance is not indicative of future performance.

Disclaimer

THEAM Quant" is the generic name given to a broad range of systematic strategies designed by BNP Paribas Global Markets and mostly implemented in Funds managed by BNP Paribas Asset Management

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